PriorHessian

Generated by Doxygen 1.8.11

Contents

1 Main Page

Prior Hessian

Library for fast computation of log-likelihoods and derivatives of multivariate priors defined as composites of univariate multivariate distributions especially designed for support of Archimedean copulas.

Documentation

The PriorHessian Doxygen documentation can be build with the `OPT_DOC` CMake option and is also available on online:

- `PriorHessian HTML Manual`
- `PriorHessian PDF Manual`
- `PriorHessian github repository`

Installation

The PriorHessian library uses CMake and is designed to be installed either as a native package, or as a relocatable package in an arbitrary install prefix. The default build script will install to the `_install` directory underneath the repository root.

- **Default release build script**
  - builds to `${BUILD_PATH}` if set or default of: `${CMAKE_SOURCE_DIR}\_build\Release`
  - installs to `${INSTALL_PATH}` if set or default of: `${CMAKE_SOURCE_DIR}\_install`

  ```
  $ ./build.sh <cmake-extra-opts>
  ```
- **Default Debug build script**
  - builds to `${BUILD_PATH}` if set or default of: `${CMAKE_SOURCE_DIR}\_build\Debug`
  - installs to `${INSTALL_PATH}` if set or default of: `${CMAKE_SOURCE_DIR}\_install`

  ```
  $ ./build.debug.sh <cmake-extra-opts>
  ```
- **Manual CMake Build**

  ```
  $ cmake -H. -B<build-path> -DCMAKE_INSTALL_PREFIX=<install-path> -DCMAKE_BUILD_TYPE=Release
      <other-cmake-args>
  $ cd <build-path> && make -j<num-procs> install
  ```

Dependencies

- *`Armadillo`* - A high-performance array library for C++.
- *BLAS* - A BLAS implemenation: `Netlib BLAS reference` or *`OpenBlas`*
- *LAPACK* - A Lapack implemenation: `Netlib LAPACK reference`

Note the `OPT_BLAS_INT64` CMake option controls whether Armadillo uses BLAS and LAPACK libraries that use 64-bit interger indexing. Matlab uses 64-bit by default, and to link PriorHessian to Matlab MEX libraries, this option must be on. Many linux systems only provide 32-bit integer versions of BLAS and Lapack, and the option can be disabled if Matlab support is not a concern and 64-bit support is difficult to manage on

CMake Options

Standard options

- `BUILD_SHARED_LIBS` - Build shared libraries [Default: On]
- `BUILD_STATIC_LIBS` - Build static libraries [Default: On]
- `BUILD_TESTING` - Build tests [Default: On if `CMAKE_BUILD_TYPE=Debug`]
- `OPT_INSTALL_TESTING` - Install tests. [Default: Off]
- `OPT_DOC` - Build and install documentation (enables `make doc` and `make pdf`) [Default: Off]
- `OPT_EXPORT_BUILD_TREE` - Enable CMake export and `find_package(BacktraceException)` support from the build-tree.

Dependency options

- `OPT_BLAS_INT64` - Enable 64-bit integer BLAS library support [Default: Off]

External Projects

These packages are specialized CMake projects. If they are not currently installed on the development machines we use the `AddExternalDependency.cmake` which will automatically download, configure, build and install to the `CMAKE_INSTALL_PREFIX`, enabling their use through the normal CMake `find_package()` system.

- `BacktraceException` - For exception backtraces when debugging (especially in Matlab).

Motivation

For many likelihood-based methods, they can be extended to Bayesian methods like MAP Estimation and MCMC Posterior sampling, by incorporating a prior. This prior must provide fast methods for computing log-likelihood and it's derivatives over the parameter space. The prior log-likelihood, as well as it's gradient and hessian are then added to the equivalent quantities from the likelihood to create a Bayesian objective for MAP Estimation.

Static Polymorphism

The PriorHessian library is designed using static polymorphism (templates), and as such avoids virtual functions for small-grained tasks, and instead uses templates, which allow many small functions to be inlined. This aggressive inlining by the compiler produces log-likelihood, gradient, and hessian functions that are nearly as fast as hand-coded functions. But our flexible [`CompositeDist`]() class is able to be easily created with any mix of [`UnivariateDist`]() and [`MultivariateDist`]() elements.

In `Mappel` we use this ability to create heterogeneous priors for each Model's parameters, (e.g., [x,y,I,bg,sigma]).

Functionally, the PriorHessian library stores sequences of distributions as `std::tuples`. Using this approach as opposed to the runtime polymorphism of using `std::vector<std::unique_ptr<Base>>` gains several advantages. Most importantly, without the need for virtual functions, the tuple-based approach has the ability to inline the many small computational functions that must be combined for every call to compute the log-likelihood or other computationally important quantities.

2 Namespace Index

2.1 Namespace List

Here is a list of all namespaces with brief descriptions:

3 Hierarchical Index

3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

4 Class Index

4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

5 File Index

5.1 File List

Here is a list of all files with brief descriptions:

6 Namespace Documentation

6.1 prior_hessian Namespace Reference

Namespaces

- constants
- CopulaDistImpl
- detail
- genz
- helpers
- mcmc
- meta

  Class templates to utilize sequencing behavior of std::initializer_list expressions.
- polylog

Classes

- class AMHCopula
- class ArchimedeanCopula
- class BaseDist
- class CompositeDist

  A probability distribution made of independent component distributions composing groups of 1 or more variables.
- struct eulerian_number
- struct eulerian_number< 0, M >
- class GammaDist

  Gamma distribution.
- struct IndexError

  Indicates a index access was out of bounds.
- struct InvalidOperationError
- class MultivariateDist
- class MultivariateNormalDist

  Multivariate Normal distribution.
- class NormalDist

  Normal distribution with truncation.
- struct NotImplementedError
- struct NumericalOverflowError
- struct ParameterNameError
- struct ParameterNameUniquenessError
- struct ParameterSizeError
- struct ParameterValueError
- class ParetoDist

  Pareto dist with infinite upper bound.
- class PriorHessianError
- struct RuntimeConvergenceError
- struct RuntimeSamplingError
- struct RuntimeTypeError
- class ScaledDist
- class SymmetricBetaDist

  Single parameter beta distribution where $\alpha = \beta$, leading to symmetric bounded distribution.
- class TruncatedDist
- class TruncatedMultivariateDist
- class UnivariateDist
- class UpperTruncatedDist

Typedefs

- template<class DistT >
  using BoundsAdaptedDistT = typename detail::dist_adaptor_traits< std::decay_t< DistT >>::bounds_adapted_dist
- template<template< int > class CopulaTemplate, class... MarginalDistTs>
  using CopulaDist = CopulaDistImpl::CopulaDist< CopulaTemplate, BoundsAdaptedDistT< MarginalDistTs >... >
- using ScaledSymmetricBetaDist = ScaledDist< SymmetricBetaDist >
- using TruncatedGammaDist = TruncatedDist< GammaDist >
- template<IdxT Ndim>
  using TruncatedMultivariateNormalDist = TruncatedMultivariateDist< MultivariateNormalDist< Ndim >>
- using TruncatedNormalDist = TruncatedDist< NormalDist >
- using TruncatedParetoDist = UpperTruncatedDist< ParetoDist >
- using IdxT = arma::uword
- using UVecT = arma::Col< IdxT >
- using VecT = arma::Col< double >
- using MatT = arma::Mat< double >
- using StringVecT = std::vector< std::string >
- using TypeInfoVecT = std::vector< std::type_index >

Functions

- std::ostream & operator<< (std::ostream &out, const CompositeDist &comp_dist)
- double unit_normal_cdf (double t)
- double unit_normal_icdf (double u)
- double bounded (double x)
- double owen_t_integral (double h, double a, double gh)
- double owen_b_integral (double h, double k, double r)
- double donnelly_bvn_integral (double ah, double ak, double r)
- double donnelly_bvn_integral_orig (double ah, double ak, double r)
- template<class Dist , typename = meta::EnableIfIsNotTupleT<Dist>>
  std::enable_if_t< detail::DistTraitsT< Dist >::adaptable_bounds, Dist > make_adapted_bounded_dist (Dist &&dist)
- template<class Dist , typename = meta::EnableIfIsNotTupleT<Dist>>
  std::enable_if_t< !detail::DistTraitsT< Dist >::adaptable_bounds, BoundsAdaptedDistT< Dist > > make_adapted_bounded_dist (Dist &&dist)
- template<class Dist , class Vec , typename = meta::EnableIfIsNotTupleT<Dist>>
  std::enable_if_t< detail::DistTraitsT< Dist >::adaptable_bounds, Dist > make_adapted_bounded_dist (Dist &&dist, Vec &&lbound, Vec &&ubound)
- template<class Dist , class Vec , typename = meta::EnableIfIsNotTupleT<Dist>>
  std::enable_if_t<!detail::DistTraitsT< Dist >::adaptable_bounds, BoundsAdaptedDistT< Dist > > make_adapted_bounded_dist (Dist &&dist, Vec &&lbound, Vec &&ubound)
- template<class... Ts>
  std::tuple< BoundsAdaptedDistT< Ts >... > make_adapted_bounded_dist_tuple (Ts &&...ts)
- template<class... Ts>
  std::tuple< BoundsAdaptedDistT< Ts >... > make_adapted_bounded_dist_tuple (std::tuple< Ts... > &&dists)
- template<class... Ts>
  std::tuple< BoundsAdaptedDistT< Ts >... > make_adapted_bounded_dist_tuple (const std::tuple< Ts... > &dists)

- template<template< int > class CopulaTemplate, class... MarginalDistTs>
  CopulaDist< CopulaTemplate, MarginalDistTs... > make_copula_dist (CopulaTemplate< sizeof...(MarginalDistTs)> &&copula, MarginalDistTs &&...dists)
- template<long N>
  VecT eulerian_polynomial ()
- double owen_t_integral (double h, double a)
- template<class Vec , class Mat >
  double donnelly_bvn_cdf (const Vec &b, const Mat &sigma)
- template<class Vec , class Mat >
  double owen_bvn_cdf (const Vec &b, const Mat &sigma)
- template<class Vec , class Mat >
  double mc_mvn_integral (const Vec &a, const Vec &b, const Mat &U, double &error, int &niter)
- template<class Vec , class Mat >
  double mc_mvn_cdf_core (const Vec &b, const Mat &U, double &error, int &niter)
- template<class Vec , class Mat >
  double mc_mvn_cdf (const Vec &b, const Mat &S, double &error)
- ScaledSymmetricBetaDist make_scaled_symmetric_beta_dist (double beta, std::pair< double, double > bounds)
- TruncatedGammaDist make_bounded_gamma_dist (double scale, double shape, std::pair< double, double > bounds)
- template<IdxT Ndim, class Vec , class Mat , class Vec2 >
  TruncatedMultivariateNormalDist< Ndim > make_bounded_multivariate_normal_dist (Vec &&mu, Mat &&sigma, Vec2 &&lbound, Vec2 &&ubound)
- TruncatedNormalDist make_bounded_normal_dist (double mu, double sigma, std::pair< double, double > bounds)
- TruncatedParetoDist make_bounded_pareto_dist (double alpha, std::pair< double, double > bounds)
- template<class T >
  T square (T t)

6.1.1 Typedef Documentation

6.1.1.1 template<class DistT > using prior_hessian::BoundsAdaptedDistT = typedef typename detail::dist_adaptor_traits<std::decay_t<DistT>>::bounds_adapted_dist

The bounds-adapted distribution type for a given distribution type DistT This is the adapted version of the class, i.e., the class that allows truncation or scaling so that the lower and upper bounds are settable.

Definition at line 59 of file BoundsAdaptedDist.h.

6.1.1.2 template<template< int > class CopulaTemplate, class... MarginalDistTs> using prior_hessian::CopulaDist = typedef CopulaDistImpl::CopulaDist<CopulaTemplate, BoundsAdaptedDistT<MarginalDistTs>...>

Definition at line 182 of file CopulaDist.h.

6.1.1.3 using prior_hessian::IdxT = typedef arma::uword

Definition at line 28 of file util.h.

6.1.1.4 using prior_hessian::MatT = typedef arma::Mat<double>

Definition at line 31 of file util.h.

6.1.1.5 using prior_hessian::ScaledSymmetricBetaDist = typedef ScaledDist<SymmetricBetaDist>

Definition at line 15 of file ScaledSymmetricBetaDist.h.

6.1.1.6 using prior_hessian::StringVecT = typedef std::vector<std::string>

Definition at line 32 of file util.h.

6.1.1.7 using prior_hessian::TruncatedGammaDist = typedef TruncatedDist<GammaDist>

Definition at line 15 of file TruncatedGammaDist.h.

6.1.1.8 template<IdxT Ndim> using prior_hessian::TruncatedMultivariateNormalDist = typedef TruncatedMultivariateDist<MultivariateNormalDist<Ndim>>

Definition at line 18 of file TruncatedMultivariateNormalDist.h.

6.1.1.9 using prior_hessian::TruncatedNormalDist = typedef TruncatedDist<NormalDist>

Definition at line 17 of file TruncatedNormalDist.h.

6.1.1.10 using prior_hessian::TruncatedParetoDist = typedef UpperTruncatedDist<ParetoDist>

Definition at line 15 of file TruncatedParetoDist.h.

6.1.1.11 using prior_hessian::TypeInfoVecT = typedef std::vector<std::type_index>

Definition at line 33 of file util.h.

6.1.1.12 using prior_hessian::UVecT = typedef arma::Col<IdxT>

Definition at line 29 of file util.h.

6.1.1.13 using prior_hessian::VecT = typedef arma::Col<double>

Definition at line 30 of file util.h.

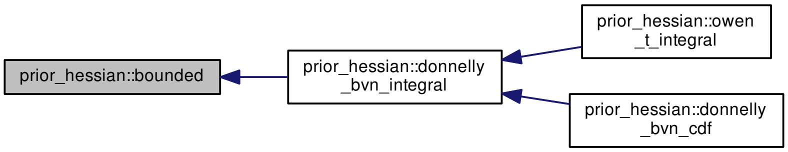
6.1.2 Function Documentation

6.1.2.1 double prior_hessian::bounded (double *x*)

Definition at line 42 of file mvn_cdf.cpp.

Referenced by donnelly_bvn_integral().

Here is the caller graph for this function:

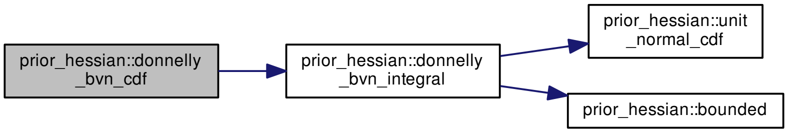

prior_hessian::bounded
prior_hessian::donnelly _bvn_integral
prior_hessian::owen _t_integral
prior_hessian::donnelly _bvn_cdf

6.1.2.2 template<class Vec , class Mat > double prior_hessian::donnelly_bvn_cdf (const Vec & *b,* const Mat & *sigma*)

Definition at line 55 of file mvn_cdf.h.

References donnelly_bvn_integral().

Here is the call graph for this function:


prior_hessian::donnelly _bvn_cdf
prior_hessian::donnelly _bvn_integral
prior_hessian::unit _normal_cdf
prior_hessian::bounded

6.1.2.3 double prior_hessian::donnelly_bvn_integral (double *ah,* double *ak,* double *r*)

compute the bivariate normal cdf integral computes the probability for two normal variates X and Y whose correlation is R, that AH <= X and AK <= Y.

Adapted to modern C++ with efficiency improvements by: Mark Olah (mjo@cs.unm DOT edu) 10/2018

Reference: Thomas Donnelly, Algorithm 462: Bivariate Normal Distribution, Communications of the ACM, October 1973, Volume 16, Number 10, page 638.

compute the upper-right tail of the bivariate normal distribution computes the probability for two normal variates X and Y whose correlation is R, that AH <= X and AK <= Y.

Adapted to modern C++ with efficiency improvements by: Mark Olah (mjo@cs.unm DOT edu) 10/2018

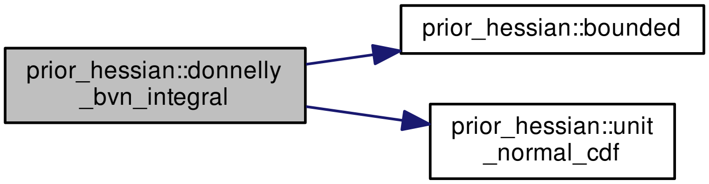
Reference: Thomas Donnelly, Algorithm 462: Bivariate Normal Distribution, Communications of the ACM, October 1973, Volume 16, Number 10, page 638.

Definition at line 158 of file mvn_cdf.cpp.

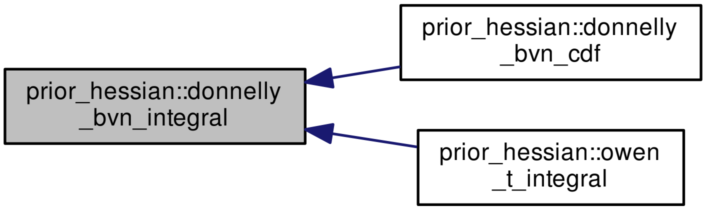
References bounded(), and unit_normal_cdf().

Referenced by donnelly_bvn_cdf(), and owen_t_integral().

Here is the call graph for this function:



Here is the caller graph for this function:



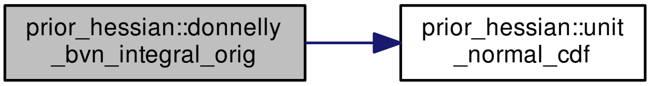
6.1.2.4 double prior_hessian::donnelly_bvn_integral_orig (double *ah,* double *ak,* double *r*)

Definition at line 268 of file mvn_cdf.cpp.

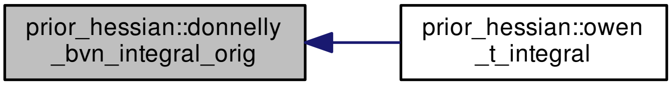
References unit_normal_cdf().

Referenced by owen_t_integral().

Here is the call graph for this function:



Here is the caller graph for this function:



6.1.2.5 template<long N> VecT prior_hessian::eulerian_polynomial ( )

Definition at line 33 of file EulerianPolynomial.h.

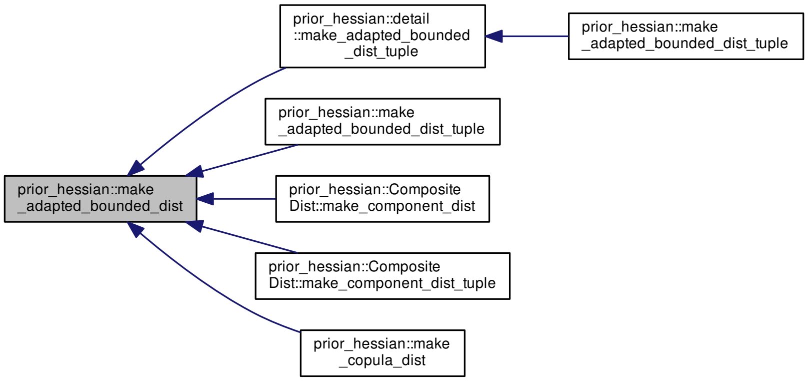
6.1.2.6 template<class Dist , typename = meta::EnableIfIsNotTupleT<Dist>> std::enable_if_t< detail::Dist↩ TraitsT<Dist>::adaptable_bounds, Dist> prior_hessian::make_adapted_bounded_dist (Dist && *dist*)

make_adapted_bounded_dist() [4-forms] If the given distribution is not bounded then the appropriate bounding distribution is wrapped around it. We detect the boundedness of the distribution using detail::adaptable_bounds type-traits class. Can be replaced with constexpr if in c++17. Uses SFINAE in c++14.

Definition at line 99 of file BoundsAdaptedDist.h.

Referenced by prior_hessian::detail::make_adapted_bounded_dist_tuple(), make_adapted_bounded_dist_tuple(), prior_hessian::CompositeDist::make_component_dist(), prior_hessian::CompositeDist::make_component_dist_tuple(), and make_copula_dist().

Here is the caller graph for this function:


prior_hessian::make _adapted_bounded_dist
prior_hessian::detail ::make_adapted_bounded _dist_tuple
prior_hessian::make _adapted_bounded_dist_tuple
prior_hessian::make _adapted_bounded_dist_tuple
prior_hessian::Composite Dist::make_component_dist
prior_hessian::Composite Dist::make_component_dist_tuple
prior_hessian::make _copula_dist

6.1.2.7 template<class Dist , typename = meta::EnableIfIsNotTupleT<Dist>> std::enable_if_t< !detail::DistTraitsT<Dist>↩ ::adaptable_bounds, BoundsAdaptedDistT<Dist> > prior_hessian::make_adapted_bounded_dist (Dist && *dist*)

Definition at line 104 of file BoundsAdaptedDist.h.

6.1.2.8 template<class Dist , class Vec , typename = meta::EnableIfIsNotTupleT<Dist>> std::enable_if_t<detail::Dist↩ TraitsT<Dist>::adaptable_bounds, Dist> prior_hessian::make_adapted_bounded_dist (Dist && *dist,* Vec && *lbound,* Vec && *ubound*)

Definition at line 109 of file BoundsAdaptedDist.h.

6.1.2.9 template<class Dist , class Vec , typename = meta::EnableIfIsNotTupleT<Dist>> std::enable_if_t<!detail::Dist↩ TraitsT<Dist>::adaptable_bounds, BoundsAdaptedDistT<Dist> > prior_hessian::make_adapted_bounded_dist (Dist && *dist,* Vec && *lbound,* Vec && *ubound*)

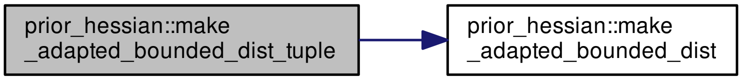
Definition at line 117 of file BoundsAdaptedDist.h.

6.1.2.10 template<class... Ts> std::tuple<BoundsAdaptedDistT<Ts>...> prior_hessian::make_adapted_bounded_dist_tuple (Ts &&... *ts*)

Definition at line 132 of file BoundsAdaptedDist.h.

References make_adapted_bounded_dist().

Here is the call graph for this function:

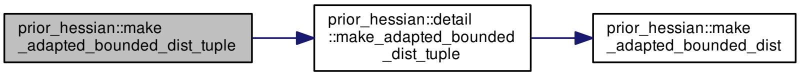

prior_hessian::make _adapted_bounded_dist_tuple
prior_hessian::make _adapted_bounded_dist

6.1.2.11 template<class... Ts> std::tuple<BoundsAdaptedDistT<Ts>...> prior_hessian::make_adapted_bounded_dist_tuple (std::tuple< Ts... > && *dists*)

Definition at line 139 of file BoundsAdaptedDist.h.

References prior_hessian::detail::make_adapted_bounded_dist_tuple().

Here is the call graph for this function:

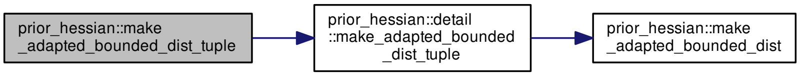


6.1.2.12 template<class... Ts> std::tuple<BoundsAdaptedDistT<Ts>...> prior_hessian::make_adapted_bounded_dist_tuple (const std::tuple< Ts... > & *dists*)

Definition at line 146 of file BoundsAdaptedDist.h.

References prior_hessian::detail::make_adapted_bounded_dist_tuple().

Here is the call graph for this function:



6.1.2.13 TruncatedGammaDist prior_hessian::make_bounded_gamma_dist (double *scale,* double *shape,* std::pair< double, double > *bounds*) [inline]

Definition at line 18 of file TruncatedGammaDist.h.

6.1.2.14 template<IdxT Ndim, class Vec , class Mat , class Vec2 > TruncatedMultivariateNormalDist<Ndim> prior_hessian::make_bounded_multivariate_normal_dist (Vec && *mu,* Mat && *sigma,* Vec2 && *lbound,* Vec2 && *ubound*)

Definition at line 22 of file TruncatedMultivariateNormalDist.h.

6.1.2.15 TruncatedNormalDist prior_hessian::make_bounded_normal_dist (double *mu,* double *sigma,* std::pair< double, double > *bounds*) [inline]

Definition at line 20 of file TruncatedNormalDist.h.

6.1.2.16 TruncatedParetoDist prior_hessian::make_bounded_pareto_dist (double *alpha*, std::pair< double, double > *bounds*) [inline]

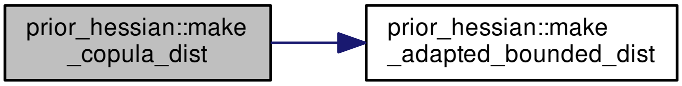
Definition at line 18 of file TruncatedParetoDist.h.

6.1.2.17 template<template< int > class CopulaTemplate, class... MarginalDistTs> CopulaDist<CopulaTemplate,Marginal↩ DistTs...> prior_hessian::make_copula_dist (CopulaTemplate< sizeof...(MarginalDistTs)> && *copula*, MarginalDistTs &&... *dists*)

Definition at line 187 of file CopulaDist.h.

References make_adapted_bounded_dist().

Here is the call graph for this function:



6.1.2.18 ScaledSymmetricBetaDist prior_hessian::make_scaled_symmetric_beta_dist (double *beta*, std::pair< double, double > *bounds*) [inline]

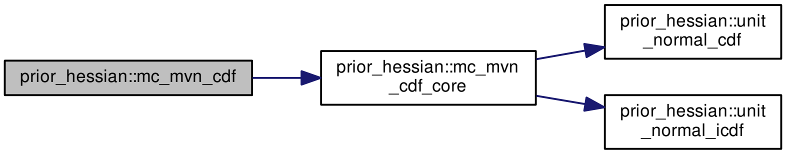
Definition at line 18 of file ScaledSymmetricBetaDist.h.

6.1.2.19 template<class Vec , class Mat > double prior_hessian::mc_mvn_cdf (const Vec & *b*, const Mat & *S*, double & *error*)

Definition at line 169 of file mvn_cdf.h.

References mc_mvn_cdf_core().

Here is the call graph for this function:



6.1.2.20 template<class Vec , class Mat > double prior_hessian::mc_mvn_cdf_core (const Vec & *b*, const Mat & *U*, double & *error*, int & *niter*)

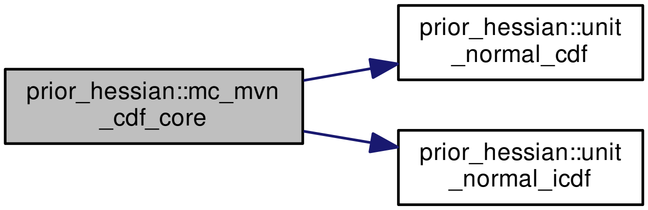
For the cdf a=-Infinity, so d=0.

Definition at line 130 of file mvn_cdf.h.

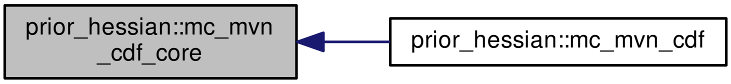
References unit_normal_cdf(), and unit_normal_icdf().

Referenced by mc_mvn_cdf().

Here is the call graph for this function:



Here is the caller graph for this function:



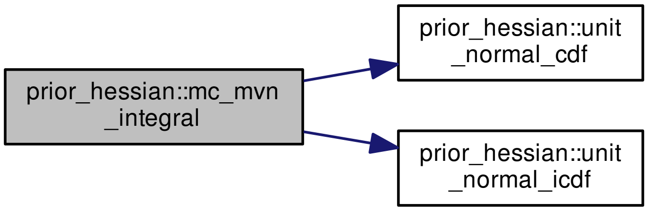
6.1.2.21 template<class Vec , class Mat > double prior_hessian::mc_mvn_integral (const Vec & *a*, const Vec & *b*, const Mat & *U*, double & *error*, int & *niter*)

compute the multivariate normal cdf integral

Definition at line 81 of file mvn_cdf.h.

References unit_normal_cdf(), and unit_normal_icdf().

Here is the call graph for this function:



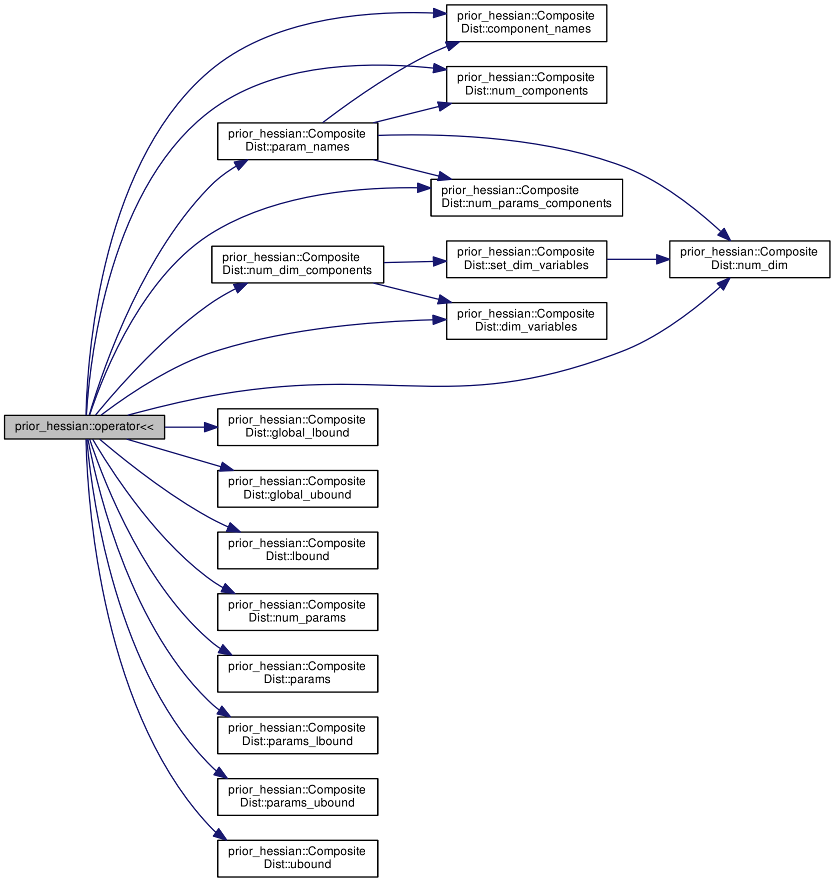
6.1.2.22 std::ostream & prior_hessian::operator<< (std::ostream & *out,* const **CompositeDist** & *comp_dist*)

Definition at line 80 of file CompositeDist.cpp.

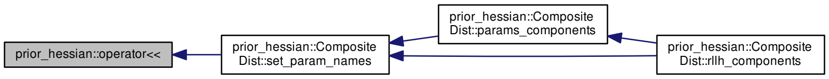
References prior_hessian::CompositeDist::component_names(), prior_hessian::CompositeDist::dim_variables(), prior_hessian::CompositeDist::global_lbound(), prior_hessian::CompositeDist::global_ubound(), prior_hessian::↩ CompositeDist::lbound(), prior_hessian::CompositeDist::num_components(), prior_hessian::CompositeDist::num_↩ dim(), prior_hessian::CompositeDist::num_dim_components(), prior_hessian::CompositeDist::num_params(), prior_↩ hessian::CompositeDist::num_params_components(), prior_hessian::CompositeDist::param_names(), prior_hessian↩ ::CompositeDist::params(), prior_hessian::CompositeDist::params_lbound(), prior_hessian::CompositeDist::params_↩ ubound(), and prior_hessian::CompositeDist::ubound().

Referenced by prior_hessian::CompositeDist::set_param_names().

Here is the call graph for this function:


prior_hessian::CompositeDist::component_names
prior_hessian::CompositeDist::num_components
prior_hessian::CompositeDist::param_names
prior_hessian::CompositeDist::num_params_components
prior_hessian::CompositeDist::num_dim_components
prior_hessian::CompositeDist::set_dim_variables
prior_hessian::CompositeDist::num_dim
prior_hessian::CompositeDist::dim_variables
prior_hessian::operator<<
prior_hessian::CompositeDist::global_lbound
prior_hessian::CompositeDist::global_ubound
prior_hessian::CompositeDist::lbound
prior_hessian::CompositeDist::num_params
prior_hessian::CompositeDist::params
prior_hessian::CompositeDist::params_lbound
prior_hessian::CompositeDist::params_ubound
prior_hessian::CompositeDist::ubound

Here is the caller graph for this function:


prior_hessian::operator<<
prior_hessian::CompositeDist::set_param_names
prior_hessian::CompositeDist::params_components
prior_hessian::CompositeDist::rllh_components

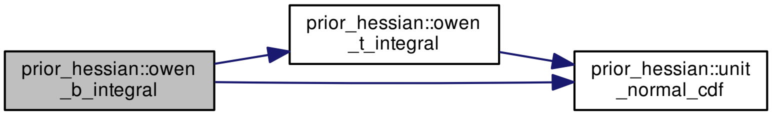
6.1.2.23 double prior_hessian::owen_b_integral (double *h*, double *k*, double *r*)

Definition at line 108 of file mvn_cdf.cpp.

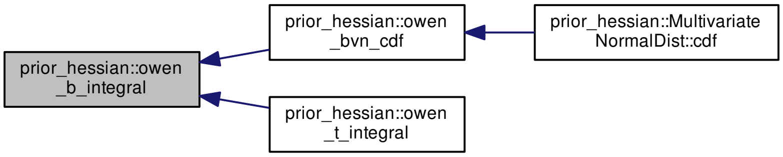
References owen_t_integral(), and unit_normal_cdf().

Referenced by owen_bvn_cdf(), and owen_t_integral().

Here is the call graph for this function:



Here is the caller graph for this function:



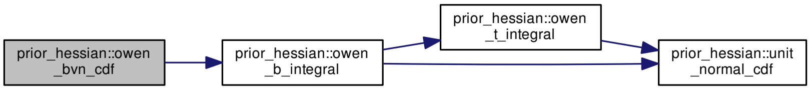
6.1.2.24 template< class Vec , class Mat > double prior_hessian::owen_bvn_cdf (const Vec & *b*, const Mat & *sigma*)

Definition at line 67 of file mvn_cdf.h.

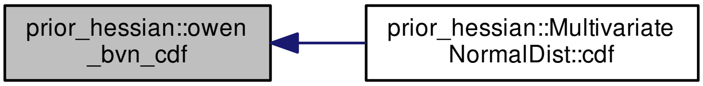
References owen_b_integral().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::cdf().

Here is the call graph for this function:



Here is the caller graph for this function:

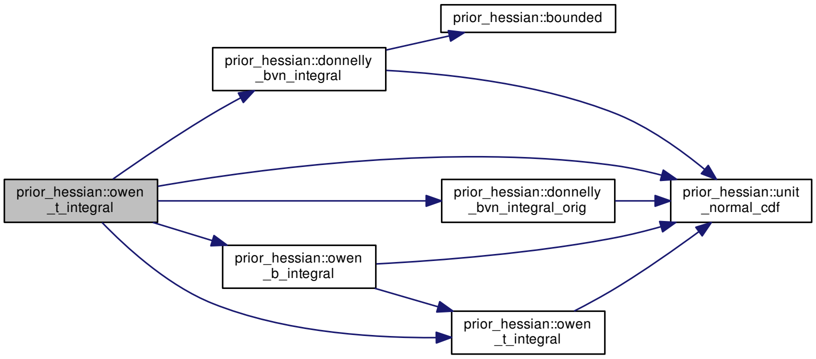


6.1.2.25 double prior_hessian::owen_t_integral (double *h*, double *a*) [inline]

Definition at line 26 of file mvn_cdf.h.

References donnelly_bvn_integral(), donnelly_bvn_integral_orig(), owen_b_integral(), owen_t_integral(), and unit_normal_cdf().

Here is the call graph for this function:



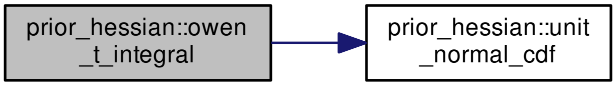
6.1.2.26 double prior_hessian::owen_t_integral (double *h*, double *a*, double *gh*)

Definition at line 54 of file mvn_cdf.cpp.

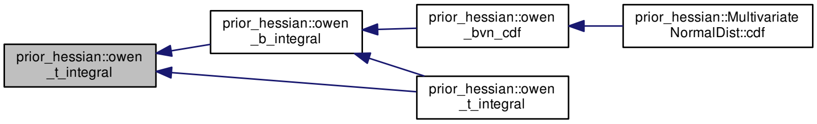
References unit_normal_cdf().

Referenced by owen_b_integral(), and owen_t_integral().

Here is the call graph for this function:



Here is the caller graph for this function:

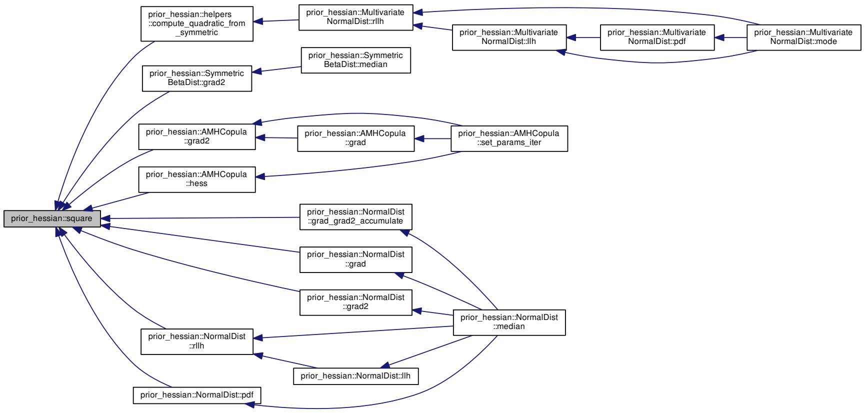


6.1.2.27 template< class T > T prior_hessian::square (T *t*)

Definition at line 44 of file util.h.

Referenced by prior_hessian::helpers::compute_quadratic_from_symmetric(), prior_hessian::NormalDist::grad(), prior_hessian::SymmetricBetaDist::grad2(), prior_hessian::NormalDist::grad2(), prior_hessian::AMHCopula< Ndim >::grad2(), prior_hessian::NormalDist::grad_grad2_accumulate(), prior_hessian::AMHCopula< Ndim >::hess(), prior_hessian::NormalDist::pdf(), and prior_hessian::NormalDist::rllh().

Here is the caller graph for this function:



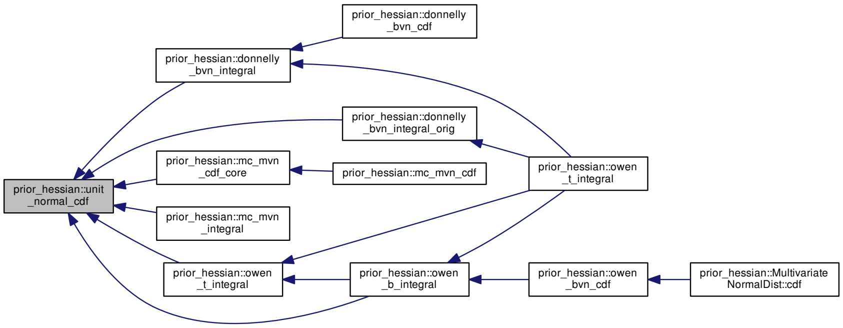
6.1.2.28 double prior_hessian::unit_normal_cdf (double *t*)

area of the lower tail of the unit normal curve below t.

Definition at line 28 of file mvn_cdf.cpp.

Referenced by donnelly_bvn_integral(), donnelly_bvn_integral_orig(), mc_mvn_cdf_core(), mc_mvn_integral(), owen_b_integral(), and owen_t_integral().

Here is the caller graph for this function:


prior_hessian::donnelly _bvn_cdf
prior_hessian::donnelly _bvn_integral
prior_hessian::donnelly _bvn_integral_orig
prior_hessian::mc_mvn _cdf_core
prior_hessian::mc_mvn_cdf
prior_hessian::owen _t_integral
prior_hessian::unit _normal_cdf
prior_hessian::mc_mvn _integral
prior_hessian::owen _t_integral
prior_hessian::owen _b_integral
prior_hessian::owen _bvn_cdf
prior_hessian::Multivariate NormalDist::cdf

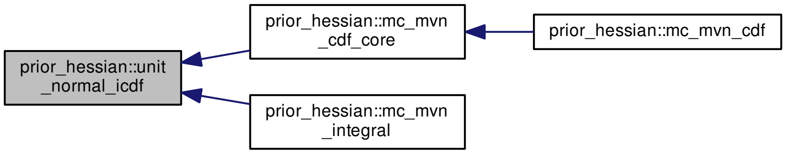
6.1.2.29 double prior_hessian::unit_normal_icdf (double *u*)

Definition at line 35 of file mvn_cdf.cpp.

References prior_hessian::constants::sqrt2.

Referenced by mc_mvn_cdf_core(), and mc_mvn_integral().

Here is the caller graph for this function:


prior_hessian::mc_mvn _cdf_core
prior_hessian::mc_mvn_cdf
prior_hessian::unit _normal_icdf
prior_hessian::mc_mvn _integral

6.2 prior_hessian::constants Namespace Reference

Variables

- const double sqrt2 = std::sqrt(2.)
- const double sqrt2_inv = 1./std::sqrt(2.)
- const double sqrt2pi = std::sqrt(2.∗arma::datum::pi)
- const double sqrt2pi_inv = 1./std::sqrt(2.∗arma::datum::pi)
- const double log2pi = std::log(2.∗arma::datum::pi)

6.2.1 Variable Documentation

6.2.1.1 const double prior_hessian::constants::log2pi = std::log(2.∗arma::datum::pi)

Definition at line 16 of file util.cpp.

Referenced by prior_hessian::NormalDist::llh(), and prior_hessian::MultivariateNormalDist< Ndim >::sample().

6.2.1.2 const double prior_hessian::constants::sqrt2 = std::sqrt(2.)

Definition at line 12 of file util.cpp.

Referenced by prior_hessian::NormalDist::icdf(), and prior_hessian::unit_normal_icdf().

6.2.1.3 const double prior_hessian::constants::sqrt2_inv = 1./std::sqrt(2.)

Definition at line 13 of file util.cpp.

Referenced by prior_hessian::NormalDist::cdf().

6.2.1.4 const double prior_hessian::constants::sqrt2pi = std::sqrt(2.∗arma::datum::pi)

Definition at line 14 of file util.cpp.

6.2.1.5 const double prior_hessian::constants::sqrt2pi_inv = 1./std::sqrt(2.∗arma::datum::pi)

Definition at line 15 of file util.cpp.

Referenced by prior_hessian::NormalDist::pdf().

6.3 prior_hessian::CopulaDistImpl Namespace Reference

Classes

- class CopulaDist

6.4 prior_hessian::detail Namespace Reference

Classes

- class dist_adaptor_traits
- struct dist_adaptor_traits< CopulaDistImpl::CopulaDist< CopulaTemplate, DistTs... > >
- struct dist_adaptor_traits< GammaDist >
- struct dist_adaptor_traits< MultivariateNormalDist< Ndim > >
- struct dist_adaptor_traits< NormalDist >
- struct dist_adaptor_traits< ParetoDist >
- struct dist_adaptor_traits< ScaledSymmetricBetaDist >
- struct dist_adaptor_traits< SymmetricBetaDist >
- struct dist_adaptor_traits< TruncatedGammaDist >
- struct dist_adaptor_traits< TruncatedMultivariateNormalDist< Ndim > >
- struct dist_adaptor_traits< TruncatedNormalDist >
- struct dist_adaptor_traits< TruncatedParetoDist >

Typedefs

- template<class DistT >
  using DistTraitsT = detail::dist_adaptor_traits< std::decay_t< DistT >>

Functions

- template<class... Ts, std::size_t... I>
  std::tuple< BoundsAdaptedDistT< Ts >... > make_adapted_bounded_dist_tuple (std::tuple< Ts... > &&dists, std::index_sequence< I... >)
- template<class... Ts, std::size_t... I>
  std::tuple< BoundsAdaptedDistT< Ts >... > make_adapted_bounded_dist_tuple (const std::tuple< Ts... > &dists, std::index_sequence< I... >)
- template<long N, long... I>
  VecT eulerian_polynomial ()

6.4.1 Typedef Documentation

6.4.1.1 template<class DistT > using prior_hessian::detail::DistTraitsT = typedef detail::dist_adaptor_traits<std::decay_t<DistT>>

Type traits class for distribution type DistT.

The traits class describes the Adaptor classes applicable to each individual distribution

Definition at line 52 of file BoundsAdaptedDist.h.

6.4.2 Function Documentation

6.4.2.1 template<long N, long... I> VecT prior_hessian::detail::eulerian_polynomial ( )

Definition at line 26 of file EulerianPolynomial.h.

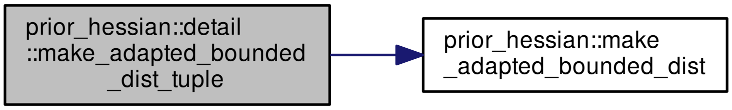
6.4.2.2 template<class... Ts, std::size_t... I> std::tuple<BoundsAdaptedDistT<Ts>...> prior_hessian::detail::make_adapted_bounded_dist_tuple (std::tuple< Ts... > && *dists*, std::index_sequence< I... >)

Definition at line 66 of file BoundsAdaptedDist.h.

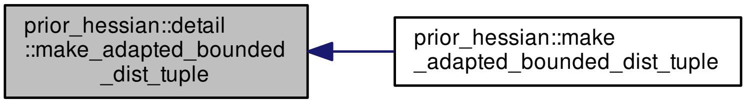
References prior_hessian::make_adapted_bounded_dist().

Referenced by prior_hessian::make_adapted_bounded_dist_tuple().

Here is the call graph for this function:



Here is the caller graph for this function:

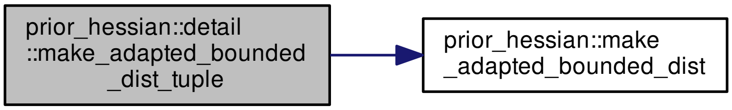


6.4.2.3 template<class... Ts, std::size_t... I> std::tuple<BoundsAdaptedDistT<Ts>...> prior_hessian::detail::make_adapted_bounded_dist_tuple (const std::tuple< Ts... > & *dists*, std::index_sequence< I... >)

Definition at line 73 of file BoundsAdaptedDist.h.

References prior_hessian::make_adapted_bounded_dist().

Here is the call graph for this function:



6.5 prior_hessian::genz Namespace Reference

Namespaces

- fortran

Functions

- template<class Vec , class Mat >
  double mvn_cdf_genz (const Vec &b, const Mat &S, double &error)

6.5.1 Function Documentation

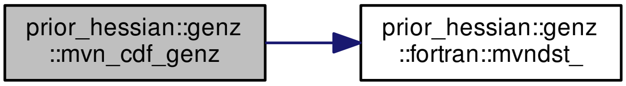
6.5.1.1 template<class Vec , class Mat > double prior_hessian::genz::mvn_cdf_genz (const Vec & *b,* const Mat & *S,* double & *error*)

Definition at line 217 of file mvn_cdf.h.

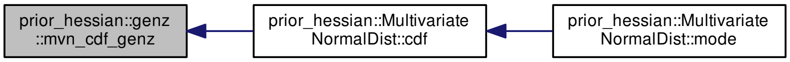
References prior_hessian::genz::fortran::mvndst_().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::cdf().

Here is the call graph for this function:



Here is the caller graph for this function:



6.6 prior_hessian::genz::fortran Namespace Reference

Functions

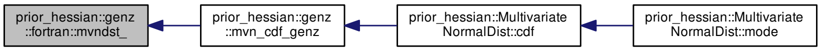
- int mvndst_ (int ∗n, double lower[ ], double upper[ ], int infin[ ], double correl[ ], int ∗maxpts, double ∗abseps, double ∗releps, double ∗error, double ∗value, int ∗inform)

6.6.1 Function Documentation

6.6.1.1 int prior_hessian::genz::fortran::mvndst_ (int ∗ *n,* double *lower[ ],* double *upper[ ],* int *infin[ ],* double *correl[ ],* int ∗ *maxpts,* double ∗ *abseps,* double ∗ *releps,* double ∗ *error,* double ∗ *value,* int ∗ *inform*)

Referenced by prior_hessian::genz::mvn_cdf_genz().

Here is the caller graph for this function:


prior_hessian::genz ::fortran::mvndst_
prior_hessian::genz ::mvn_cdf_genz
prior_hessian::Multivariate NormalDist::cdf
prior_hessian::Multivariate NormalDist::mode

6.7 prior_hessian::helpers Namespace Reference

Functions

- template<class Vec , class Mat >
  double compute_quadratic_from_symmetric (IdxT Ndim, const Vec &v, const Mat &A)

6.7.1 Function Documentation

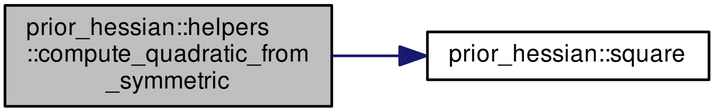
6.7.1.1 template<class Vec , class Mat > double prior_hessian::helpers::compute_quadratic_from_symmetric (IdxT *Ndim,* const Vec & *v,* const Mat & *A*)

Definition at line 137 of file MultivariateNormalDist.h.

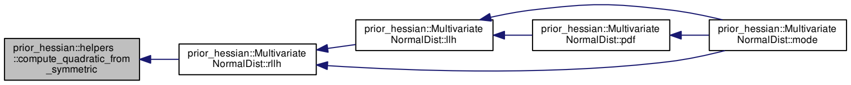
References prior_hessian::square().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::rllh().

Here is the call graph for this function:



Here is the caller graph for this function:



6.8 prior_hessian::mcmc Namespace Reference

Classes

- class MCMCData

6.9 prior_hessian::meta Namespace Reference

Class templates to utilize sequencing behavior of std::initializer_list expressions.

Classes

- struct all_dists_are_bounded
- struct conjunction
- struct conjunction< B1 >
- struct conjunction< B1, Bn... >
- struct disjunction
- struct disjunction< B1 >
- struct disjunction< B1, Bn... >
- class is_copula
- struct is_numeric_template_of
- struct is_numeric_template_of< ClassNumericTemplate, ClassNumericTemplate< Is... > >
- class is_subclass_of_numeric_template
- struct is_template_of
- struct is_template_of< ClassTemplate, ClassTemplate< Ts... > >

Typedefs

- template<class... DistTs>
  using ConstructableIfAllDistsAreBoundedT = std::enable_if< all_dists_are_bounded< DistTs... >::value, bool >
- template<class... DistTs>
  using ConstructableIfNotAllDistsAreBoundedT = std::enable_if<!all_dists_are_bounded< DistTs... >::value, bool >
- template<template< template< int > class, class... > class CopulaT, class U >
  using ConstructableIfIsCopulaT = std::enable_if_t< is_copula< CopulaT, U >::value,bool >
- template<class ReturnT , class BoolT >
  using ReturnIfT = std::enable_if_t< BoolT::value, ReturnT >
- template<bool val>
  using ConstructableIf = std::enable_if_t< val, bool >
- template<bool val>
  using ConstructableIfNot = std::enable_if_t<!val, bool >
- template<class T , class SelfT >
  using ConstructableIfNotSelfT = std::enable_if_t<!std::is_same< std::decay_t< T >, SelfT >::value, bool >
- template<class T , class BaseT >
  using EnableIfSubclassT = std::enable_if_t< std::is_base_of< std::remove_reference_t< BaseT >, std::remove_reference_t< T >>::value >
- template<class T , template< int > class ClassNumericTemplate>
  using EnableIfSubclassOfNumericTemplateT = std::enable_if_t< is_subclass_of_numeric_template< ClassNumericTemplate, std::remove_reference_t< T >>::value >
- template<class ReturnT , class T , template< int > class ClassNumericTemplate>
  using ReturnIfSubclassOfNumericTemplateT = std::enable_if_t< is_subclass_of_numeric_template< ClassNumericTemplate, std::remove_reference_t< T >>::value, ReturnT >
- template<class T , class SelfT >
  using EnableIfNotIsSelfT = std::enable_if_t< !std::is_same< std::decay_t< T >, SelfT >::value >
- template<class ReturnT , class T , class BaseT >
  using ReturnIfSubclassT = std::enable_if_t< std::is_base_of< std::remove_reference_t< BaseT >, std::remove_reference_t< T >>::value, ReturnT >
- template<class BaseT , class... Ts>
  using EnableIfIsSuperclassOfAllT = std::enable_if_t< conjunction< std::is_base_of< std::remove_reference_t< BaseT >, std::remove_reference_t< Ts >>... >::value >
- template<class T , template< typename... > class ClassTemplate>
  using EnableIfInstantiatedFromT = std::enable_if_t< is_template_of< ClassTemplate, std::remove_reference_t< T >>::value >
- template<class T , template< int > class ClassTemplate>
  using EnableIfInstantiatedFromNumericT = std::enable_if_t< is_numeric_template_of< ClassTemplate, std::remove_reference_t< T >>::value >
- template<class ReturnT , class T , template< int > class ClassTemplate>
  using ReturnIfInstantiatedFromNumericT = std::enable_if_t< is_numeric_template_of< ClassTemplate, std::remove_reference_t< T >>::value, ReturnT >
- template<class T , template< typename... > class ClassTemplate>
  using EnableIfNotInstantiatedFromT = std::enable_if_t< !is_template_of< ClassTemplate, std::remove_reference_t< T >>::value >
- template<class ReturnT , class TestT , template< typename... > class ClassTemplate>
  using ReturnIfInstantiatedFromT = std::enable_if_t< is_template_of< ClassTemplate, std::remove_reference_t< TestT >>::value, ReturnT >
- template<class ReturnT , class TestT , template< typename... > class ClassTemplate>
  using ReturnIfNotInstantiatedFromT = std::enable_if_t< !is_template_of< ClassTemplate, std::remove_reference_t< TestT >>::value, ReturnT >

- template<template< typename > class ClassTemplate, class... Ts>
  using EnableIfIsTemplateForAllT = std::enable_if_t< conjunction< is_template_of< ClassTemplate, std↩ ::remove_reference_t< Ts >>... >::value >
- template<template< typename... > class ClassTemplate, class... Ts>
  using ConstructableIfIsTemplateForAllT = std::enable_if_t< conjunction< is_template_of< ClassTemplate, std↩ ::remove_reference_t< Ts >>... >::value, bool >
- template<class SuperClass , class T >
  using ConstructableIfIsSuperClassT = std::enable_if_t< std::is_base_of< std::remove_reference_t< SuperClass >, std::remove_reference_t< T >>::value, bool >
- template<class SuperClass , class... Ts>
  using ConstructableIfIsSuperClassForAllT = std::enable_if_t< conjunction< std::is_base_of< std::remove_↩ reference_t< SuperClass >, std::remove_reference_t< Ts >>... >::value, bool >
- template<class T , template< int > class ClassTemplate>
  using ConstructableIfInstantiatedFromNumericT = std::enable_if_t< is_numeric_template_of< ClassTemplate, std::remove_reference_t< T >>::value, bool >
- template<class T >
  using EnableIfIsNotTupleT = std::enable_if_t< !is_template_of< std::tuple, std::remove_reference_t< T >>↩ ::value >
- template<class... Ts>
  using EnableIfNonEmpty = std::enable_if_t< (sizeof...(Ts)>0) >
- template<class... Ts>
  using EnableIfAllAreNotTupleT = std::enable_if_t< !disjunction< is_template_of< std::tuple, std::remove_↩ reference_t< Ts >>... >::value >
- template<class SelfT , class T >
  using EnableIfIsNotTupleAndIsNotSelfT = std::enable_if_t< !is_template_of< std::tuple, std::remove_reference↩ _t< T >>::value &&!std::is_same< std::decay_t< T >, SelfT >::value >
- template<class T , class... Ts>
  using ConstructableIfAllAreNotTupleAndAreNotT = std::enable_if_t< !disjunction< is_template_of< std::tuple, std::remove_reference_t< Ts >>... >::value &&!disjunction< std::is_same< std::decay_t< Ts >, T >... >↩ ::value, bool >
- template<class Dist , class BaseDist >
  using DerivedFrom = std::enable_if_t< std::is_base_of< std::decay_t< BaseDist >, std::decay_t< Dist >>↩ ::value, std::decay_t< Dist >>

Functions

- template<class T = int>
  void call_in_order (std::initializer_list< T >)
- template<class InputIterator , class ResultT , class BinaryOperation >
  PRIOR_HESSIAN_META_CONSTEXPR ResultT constexpr_accumulate (InputIterator first, InputIterator last, ResultT init, BinaryOperation op)
- PRIOR_HESSIAN_META_CONSTEXPR bool logical_and_in_order (std::initializer_list< bool > L)
- template<class T >
  PRIOR_HESSIAN_META_CONSTEXPR T sum_in_order (std::initializer_list< T > L)
- template<class T >
  PRIOR_HESSIAN_META_CONSTEXPR T prod_in_order (std::initializer_list< T > L)

6.9.1 Detailed Description

Class templates to utilize sequencing behavior of std::initializer_list expressions.

These class templates are intended to be used in variadic template functions to sequence the order of calls as a std↩ ::initializer_list.

6.9.2 Typedef Documentation

6.9.2.1 template<bool val> using prior_hessian::meta::ConstructableIf = typedef std::enable_if_t<val,bool>

Definition at line 117 of file Meta.h.

6.9.2.2 template<class T , class... Ts> using prior_hessian::meta::ConstructableIfAllAreNotTupleAndAreNotT = typedef std::enable_if_t< !disjunction<is_template_of<std::tuple,std::remove_reference_t<Ts>>...>::value && !disjunction<std::is_same<std::decay_t<Ts>,T>...>::value, bool>

Definition at line 214 of file Meta.h.

6.9.2.3 template<class... DistTs> using prior_hessian::meta::ConstructableIfAllDistsAreBoundedT = typedef std::enable_if<all_dists_are_bounded<DistTs...>::value,bool>

Definition at line 87 of file BoundsAdaptedDist.h.

6.9.2.4 template<class T , template< int > class ClassTemplate> using prior_hessian::meta::ConstructableIfInstantiatedFromNumericT = typedef std::enable_if_t< is_numeric_template_of<ClassTemplate, std::remove_reference_t<T>>::value, bool >

Definition at line 194 of file Meta.h.

6.9.2.5 template<template< template< int > class, class... > class CopulaT, class U > using prior_hessian::meta::ConstructableIfIsCopulaT = typedef std::enable_if_t<is_copula<CopulaT,U>::value ,bool>

Definition at line 111 of file Meta.h.

6.9.2.6 template<class SuperClass , class... Ts> using prior_hessian::meta::ConstructableIfIsSuperClassForAllT = typedef std::enable_if_t< conjunction< std::is_base_of<std::remove_reference_t<SuperClass>,std::remove_reference_t<Ts>>... >::value, bool>

Definition at line 190 of file Meta.h.

6.9.2.7 template<class SuperClass , class T > using prior_hessian::meta::ConstructableIfIsSuperClassT = typedef std::enable_if_t< std::is_base_of<std::remove_reference_t<SuperClass>,std::remove_reference_t<T>>::value, bool>

Definition at line 186 of file Meta.h.

6.9.2.8 template<template< typename... > class ClassTemplate, class... Ts> using prior_hessian::meta::ConstructableIfIsTemplateForAllT = typedef std::enable_if_t< conjunction< is_template_of<ClassTemplate,std::remove_reference_t<Ts>> ... >::value, bool>

Definition at line 182 of file Meta.h.

6.9.2.9 template<bool val> using prior_hessian::meta::ConstructableIfNot = typedef std::enable_if_t<!val,bool>

Definition at line 120 of file Meta.h.

6.9.2.10 template<class... DistTs> using prior_hessian::meta::ConstructableIfNotAllDistsAreBoundedT = typedef std::enable_if<!all_dists_are_bounded<DistTs...>::value,bool>

Definition at line 89 of file BoundsAdaptedDist.h.

6.9.2.11 template<class T , class SelfT > using prior_hessian::meta::ConstructableIfNotSelfT = typedef std::enable_if_t<!std::is_same<std::decay_t<T>,SelfT>::value,bool>

Definition at line 123 of file Meta.h.

6.9.2.12 template<class Dist , class BaseDist > using prior_hessian::meta::DerivedFrom = typedef std::enable_if_t<std::is_base_of<std::decay_t<BaseDist>,std::decay_t<Dist>>::value,std::decay_t<Dist>>

Definition at line 228 of file Meta.h.

6.9.2.13 template<class... Ts> using prior_hessian::meta::EnableIfAllAreNotTupleT = typedef std::enable_if_t< !disjunction< is_template_of<std::tuple,std::remove_reference_t<Ts>>... >::value >

Definition at line 204 of file Meta.h.

6.9.2.14 template<class T , template< int > class ClassTemplate> using prior_hessian::meta::EnableIfInstantiatedFromNumericT = typedef std::enable_if_t< is_numeric_template_of<ClassTemplate, std::remove_reference_t<T>>::value>

Definition at line 158 of file Meta.h.

6.9.2.15 template<class T , template< typename... > class ClassTemplate> using prior_hessian::meta::EnableIfInstantiatedFromT = typedef std::enable_if_t< is_template_of<ClassTemplate, std::remove_reference_t<T>>::value >

Definition at line 150 of file Meta.h.

6.9.2.16 template<class SelfT , class T > using prior_hessian::meta::EnableIfIsNotTupleAndIsNotSelfT = typedef std::enable_if_t< !is_template_of<std::tuple,std::remove_reference_t<T>>::value && !std::is_same<std::decay_t<T>,SelfT>::value >

Definition at line 209 of file Meta.h.

6.9.2.17 template<class T > using prior_hessian::meta::EnableIfIsNotTupleT = typedef std::enable_if_t< !is_template_of<std::tuple,std::remove_reference_t<T>>::value >

Definition at line 197 of file Meta.h.

6.9.2.18 template<class BaseT , class... Ts> using prior_hessian::meta::EnableIfIsSuperclassOfAllT = typedef std::enable_if_t<conjunction< std::is_base_of<std::remove_reference_t<BaseT>,std::remove_reference_t<Ts>> ... >::value >

Definition at line 146 of file Meta.h.

6.9.2.19 template<template< typename > class ClassTemplate, class... Ts> using prior_hessian::meta::EnableIfIsTemplateForAllT = typedef std::enable_if_t< conjunction< is_template_of<ClassTemplate,std::remove_reference_t<Ts>> ... >::value >

Definition at line 178 of file Meta.h.

6.9.2.20 template<class... Ts> using prior_hessian::meta::EnableIfNonEmpty = typedef std::enable_if_t< (sizeof...(Ts)>0) >

Definition at line 200 of file Meta.h.

6.9.2.21 template<class T , template< typename... > class ClassTemplate> using prior_hessian::meta::EnableIfNotInstantiatedFromT = typedef std::enable_if_t< !is_template_of<ClassTemplate, std::remove_reference_t<T>>::value >

Definition at line 166 of file Meta.h.

6.9.2.22 template<class T , class SelfT > using prior_hessian::meta::EnableIfNotIsSelfT = typedef std::enable_if_t< !std::is_same<std::decay_t<T>,SelfT>::value >

Definition at line 138 of file Meta.h.

6.9.2.23 template<class T , template< int > class ClassNumericTemplate> using prior_hessian::meta::EnableIfSubclassOfNumericTemplateT = typedef std::enable_if_t< is_subclass_of_numeric_template<ClassNumericTemplate, std::remove_reference_t<T>>::value>

Definition at line 131 of file Meta.h.

6.9.2.24 template<class T , class BaseT > using prior_hessian::meta::EnableIfSubclassT = typedef std::enable_if_t< std::is_base_of<std::remove_reference_t<BaseT>,std::remove_reference_t<T>>::value>

Definition at line 127 of file Meta.h.

6.9.2.25 template<class ReturnT , class T , template< int > class ClassTemplate> using prior_hessian::meta::ReturnIfInstantiatedFromNumericT = typedef std::enable_if_t< is_numeric_template_of<ClassTemplate, std::remove_reference_t<T>>::value, ReturnT>

Definition at line 162 of file Meta.h.

6.9.2.26 template<class ReturnT , class TestT , template< typename... > class ClassTemplate> using prior_hessian::meta::ReturnIfInstantiatedFromT = typedef std::enable_if_t< is_template_of<ClassTemplate, std::remove_reference_t<TestT>>::value, ReturnT>

Definition at line 170 of file Meta.h.

6.9.2.27 template< class ReturnT , class TestT , template< typename... > class ClassTemplate> using prior_hessian::meta::ReturnIfNotInstantiatedFromT = typedef std::enable_if_t< !is_template_of<ClassTemplate, std::remove_reference_t<TestT>>::value, ReturnT>

Definition at line 174 of file Meta.h.

6.9.2.28 template< class ReturnT , class T , template< int > class ClassNumericTemplate> using prior_hessian::meta::ReturnIfSubclassOfNumericTemplateT = typedef std::enable_if_t< is_subclass_of_numeric_template<ClassNumericTemplate, std::remove_reference_t<T>>::value, ReturnT>

Definition at line 135 of file Meta.h.

6.9.2.29 template< class ReturnT , class T , class BaseT > using prior_hessian::meta::ReturnIfSubclassT = typedef std::enable_if_t< std::is_base_of<std::remove_reference_t<BaseT>,std::remove_reference_t<T>>::value, ReturnT>

Definition at line 142 of file Meta.h.

6.9.2.30 template< class ReturnT , class BoolT > using prior_hessian::meta::ReturnIfT = typedef std::enable_if_t<BoolT::value,ReturnT>

Definition at line 114 of file Meta.h.

6.9.3 Function Documentation

6.9.3.1 template< class T = int> void prior_hessian::meta::call_in_order (std::initializer_list< T >)

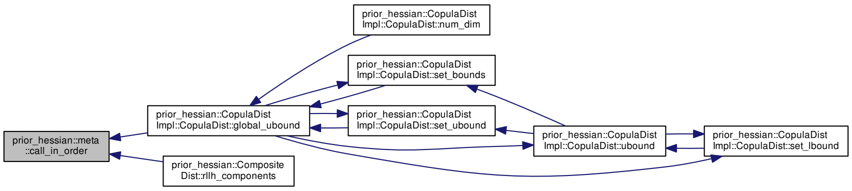
NOOP function which is used to ensure call order on a variadic sequence of function calls

Definition at line 41 of file Meta.h.

References PRIOR_HESSIAN_META_CONSTEXPR.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CompositeDist::rllh_components().

Here is the caller graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::meta ::call_in_order
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::Composite Dist::rllh_components

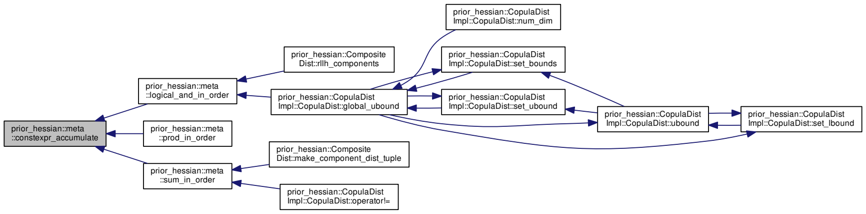
6.9.3.2 template<class InputIterator , class ResultT , class BinaryOperation > PRIOR_HESSIAN_META_CONSTEXPR ResultT prior_hessian::meta::constexpr_accumulate (InputIterator *first,* InputIterator *last,* ResultT *init,* BinaryOperation *op*)

Definition at line 46 of file Meta.h.

References PRIOR_HESSIAN_META_CONSTEXPR.

Referenced by logical_and_in_order(), prod_in_order(), and sum_in_order().

Here is the caller graph for this function:


prior_hessian::meta ::constexpr_accumulate
prior_hessian::meta ::logical_and_in_order
prior_hessian::meta ::prod_in_order
prior_hessian::meta ::sum_in_order
prior_hessian::Composite Dist::rllh_components
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::Composite Dist::make_component_dist_tuple
prior_hessian::CopulaDist Impl::CopulaDist::operator!=
prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound

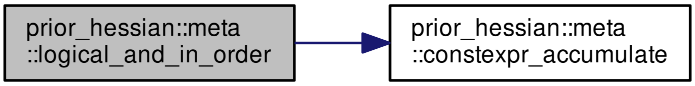
6.9.3.3 PRIOR_HESSIAN_META_CONSTEXPR bool prior_hessian::meta::logical_and_in_order (std::initializer_list< bool > *L*) [inline]

Definition at line 53 of file Meta.h.

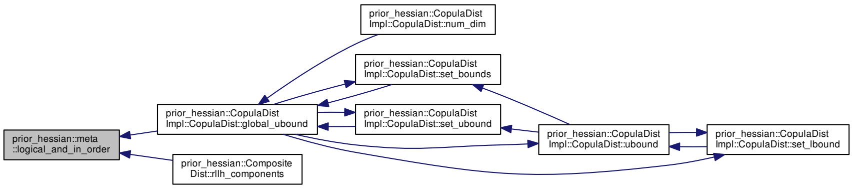
References constexpr_accumulate(), and PRIOR_HESSIAN_META_CONSTEXPR.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CompositeDist::rllh_components().

Here is the call graph for this function:


prior_hessian::meta ::logical_and_in_order
prior_hessian::meta ::constexpr_accumulate

Here is the caller graph for this function:

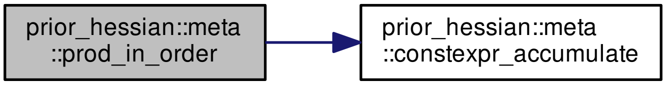

prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::meta ::logical_and_in_order
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::Composite Dist::rllh_components

6.9.3.4 template< class T > PRIOR_HESSIAN_META_CONSTEXPR T prior_hessian::meta::prod_in_order (std::initializer_list< T > *L*)

Definition at line 63 of file Meta.h.

References constexpr_accumulate().

Here is the call graph for this function:


prior_hessian::meta ::prod_in_order
prior_hessian::meta ::constexpr_accumulate

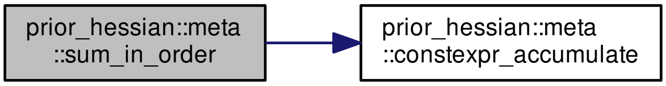
6.9.3.5 template< class T > PRIOR_HESSIAN_META_CONSTEXPR T prior_hessian::meta::sum_in_order (std::initializer_list< T > *L*)

Definition at line 58 of file Meta.h.

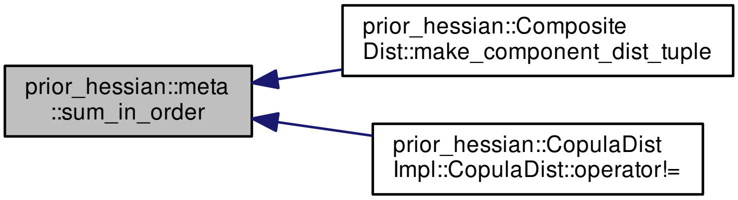
References constexpr_accumulate(), and PRIOR_HESSIAN_META_CONSTEXPR.

Referenced by prior_hessian::CompositeDist::make_component_dist_tuple(), and prior_hessian::CopulaDistImpl::↩ CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the call graph for this function:


prior_hessian::meta ::sum_in_order
prior_hessian::meta ::constexpr_accumulate

Here is the caller graph for this function:


prior_hessian::meta
::sum_in_order
prior_hessian::Composite
Dist::make_component_dist_tuple
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

6.10 prior_hessian::polylog Namespace Reference

Functions

- template<int n>
  double eulerian_polynomial (double z)
- template<>
  double eulerian_polynomial< 0 > (double)
- template<>
  double eulerian_polynomial< 1 > (double z)
- template<>
  double eulerian_polynomial< 2 > (double z)
- template<>
  double eulerian_polynomial< 3 > (double z)
- template<>
  double eulerian_polynomial< 4 > (double z)
- template<>
  double eulerian_polynomial< 5 > (double z)
- template<>
  double eulerian_polynomial< 6 > (double z)
- template<>
  double eulerian_polynomial< 7 > (double z)
- template<>
  double eulerian_polynomial< 8 > (double z)
- template<>
  double eulerian_polynomial< 9 > (double z)
- template<int n>
  double polylog (double z)
- template<>
  double polylog< 1 > (double z)

6.10.1 Function Documentation

6.10.1.1 template<int n> double prior_hessian::polylog::eulerian_polynomial (double *z*)

6.10.1.2 template<> double prior_hessian::polylog::eulerian_polynomial< 0 > (double)

Definition at line 17 of file PolyLog.h.

6.10.1.3 template<> double prior_hessian::polylog::eulerian_polynomial< 1 >(double *z*)

Definition at line 23 of file PolyLog.h.

6.10.1.4 template<> double prior_hessian::polylog::eulerian_polynomial< 2 >(double *z*)

Definition at line 29 of file PolyLog.h.

6.10.1.5 template<> double prior_hessian::polylog::eulerian_polynomial< 3 >(double *z*)

Definition at line 35 of file PolyLog.h.

6.10.1.6 template<> double prior_hessian::polylog::eulerian_polynomial< 4 >(double *z*)

Definition at line 41 of file PolyLog.h.

6.10.1.7 template<> double prior_hessian::polylog::eulerian_polynomial< 5 >(double *z*)

Definition at line 47 of file PolyLog.h.

6.10.1.8 template<> double prior_hessian::polylog::eulerian_polynomial< 6 >(double *z*)

Definition at line 53 of file PolyLog.h.

6.10.1.9 template<> double prior_hessian::polylog::eulerian_polynomial< 7 >(double *z*)

Definition at line 59 of file PolyLog.h.

6.10.1.10 template<> double prior_hessian::polylog::eulerian_polynomial< 8 >(double *z*)

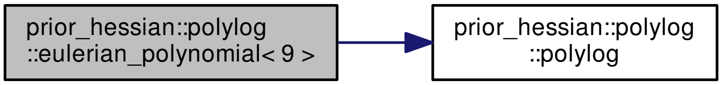
Definition at line 65 of file PolyLog.h.

6.10.1.11 template<> double prior_hessian::polylog::eulerian_polynomial< 9 >(double *z*)

Definition at line 70 of file PolyLog.h.

References polylog().

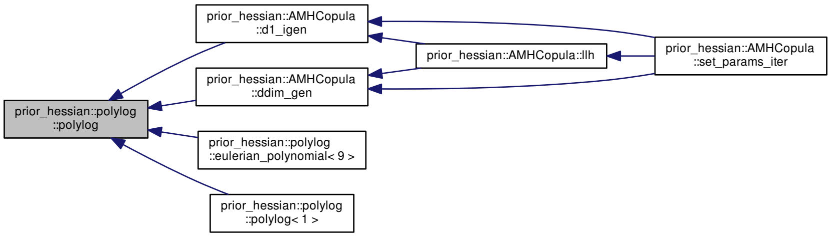
Here is the call graph for this function:


prior_hessian::polylog ::eulerian_polynomial< 9 >
prior_hessian::polylog ::polylog

6.10.1.12 template<int n> double prior_hessian::polylog::polylog (double *z*)

Referenced by prior_hessian::AMHCopula< Ndim >::d1_igen(), prior_hessian::AMHCopula< Ndim >::ddim_gen(), eulerian_polynomial< 9 >(), and polylog< 1 >().

Here is the caller graph for this function:

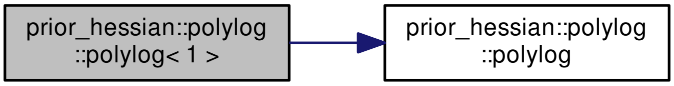

prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula::llh
prior_hessian::AMHCopula ::set_params_iter
prior_hessian::AMHCopula ::ddim_gen
prior_hessian::polylog ::polylog
prior_hessian::polylog ::eulerian_polynomial< 9 >
prior_hessian::polylog ::polylog< 1 >

6.10.1.13 template<> double prior_hessian::polylog::polylog< 1 > (double *z*)

Definition at line 120 of file PolyLog.h.

References polylog().

Here is the call graph for this function:


prior_hessian::polylog ::polylog< 1 >
prior_hessian::polylog ::polylog

7 Class Documentation

7.1 prior_hessian::meta::all_dists_are_bounded< DistTs > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
BoundsAdaptedDist.h>
```

Static Public Attributes

- static constexpr bool value = meta::logical_and_in_order({detail::dist_adaptor_traits<std::decay_t<DistTs>>↩ ::value...})

7.1.1 Detailed Description

template< class... DistTs >
struct prior_hessian::meta::all_dists_are_bounded< DistTs >

Definition at line 81 of file BoundsAdaptedDist.h.

7.1.2 Member Data Documentation

7.1.2.1 template< class... DistTs > constexpr bool prior_hessian::meta::all_dists_are_bounded< DistTs >::value = meta::logical_and_in_order({detail::dist_adaptor_traits< std::decay_t< DistTs >>::value...}) `[static]`

Definition at line 83 of file BoundsAdaptedDist.h.

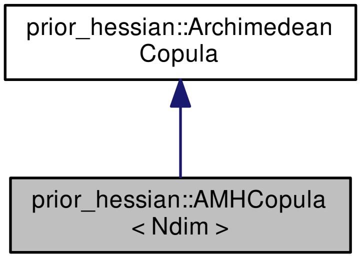
The documentation for this struct was generated from the following file:

- BoundsAdaptedDist.h

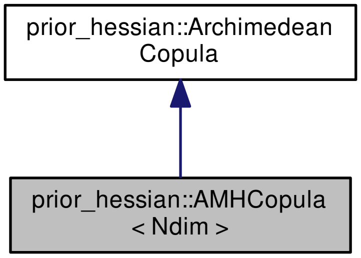
7.2 prior_hessian::AMHCopula< Ndim > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/AMH←
Copula.h>
```

Inheritance diagram for prior_hessian::AMHCopula< Ndim >:



Collaboration diagram for prior_hessian::AMHCopula< Ndim >:


prior_hessian::Archimedean Copula
prior_hessian::AMHCopula < Ndim >

Public Types

- using NdimVecT = arma::Col< double >::fixed< Ndim >
- using NdimMatT = arma::Mat< double >::fixed< Ndim, Ndim >

Public Member Functions

- AMHCopula ()
- AMHCopula (double theta)
- double theta () const
- void set_theta (double val)
- bool operator== (const AMHCopula< Ndim > &o) const
- bool operator!= (const AMHCopula< Ndim > &o) const
- template<class Vec >
  void set_params (const Vec &params)
- template<class IterT >
  void append_params (IterT &params)
- template<class IterT >
  void set_params_iter (IterT &params)
- template<class Vec >
  double cdf (const Vec &u) const
- template<class Vec >
  double pdf (const Vec &u) const
- template<class Vec >
  double llh (const Vec &u) const
- template<class Vec >
  double rllh (const Vec &u) const
- double rllh_const () const
- template<class Vec >
  NdimVecT grad (const Vec &u) const
- template<class Vec >
  NdimVecT grad2 (const Vec &u) const

- template<class Vec >
  NdimMatT hess (const Vec &u) const
- template<class Vec , class Vec2 >
  void rllh_grad_accumulate (const Vec &u, double &rllh, Vec2 &grad) const
- template<class Vec , class Vec2 >
  void rllh_grad_grad2_accumulate (const Vec &u, double &rllh, Vec2 &grad, Vec2 &grad2) const
- template<class Vec , class Vec2 , class Mat >
  void rllh_grad_hess_accumulate (const Vec &u, double &rllh, Vec2 &grad, Mat &hess) const
- template<class RngT >
  NdimVecT sample (RngT &rng) const
- double gen (double t) const
- double ddim_gen (double t) const
- double igen (double u) const
- double d1_igen (double u) const
- template<class Vec >
  double igen_sum (const Vec &u)

Static Public Member Functions

- static const StringVecT & param_names ()
- static constexpr IdxT num_params ()
- static constexpr IdxT num_dim ()
- static double param_lbound ()
- static double param_ubound ()
- static bool check_theta (double val)
- template<class Vec >
  static bool check_params (const Vec &params)
- template<class IterT >
  static bool check_params_iter (IterT &params)
- template<class Vec >
  static void rllh_dtheta_accumulate (double theta, const Vec &u, double &rllh, double &dtheta)
- template<class Vec >
  static void rllh_d2theta_accumulate (double theta, const Vec &u, double &rllh, double &dtheta, double &d2theta)

7.2.1 Detailed Description

template<int Ndim>
class prior_hessian::AMHCopula< Ndim >

Definition at line 18 of file AMHCopula.h.

7.2.2 Member Typedef Documentation

7.2.2.1 template<int Ndim> using prior_hessian::AMHCopula< Ndim >::NdimMatT = arma::Mat<double>::fixed<Ndim,Ndim>

Definition at line 27 of file AMHCopula.h.

7.2.2.2 template<int Ndim> using prior_hessian::AMHCopula< Ndim >::NdimVecT = arma::Col<double>::fixed<Ndim>

Definition at line 26 of file AMHCopula.h.

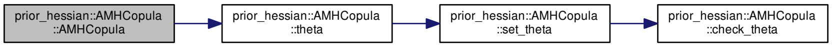
7.2.3 Constructor & Destructor Documentation

7.2.3.1 template<int Ndim> prior_hessian::AMHCopula< Ndim >::AMHCopula ( ) [inline]

Definition at line 35 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::theta().

Here is the call graph for this function:

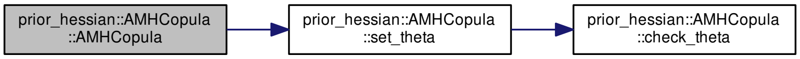

prior_hessian::AMHCopula ::AMHCopula
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

7.2.3.2 template<int Ndim> prior_hessian::AMHCopula< Ndim >::AMHCopula (double *theta*)

Definition at line 169 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::set_theta().

Here is the call graph for this function:


prior_hessian::AMHCopula ::AMHCopula
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

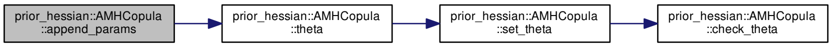
7.2.4 Member Function Documentation

7.2.4.1 template<int Ndim> template<class IterT > void prior_hessian::AMHCopula< Ndim >::append_params (IterT & *params*) [inline]

Definition at line 51 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::theta().

Here is the call graph for this function:


prior_hessian::AMHCopula ::append_params
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

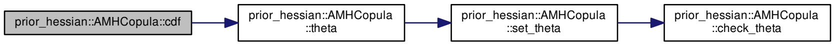
7.2.4.2 template< int Ndim> template< class Vec > double prior_hessian::AMHCopula< Ndim >::cdf (const Vec & *u*) const

Definition at line 194 of file AMHCopula.h.

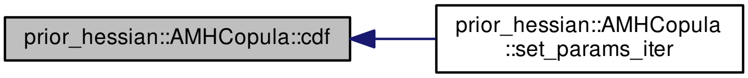
References prior_hessian::AMHCopula< Ndim >::theta().

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the call graph for this function:


prior_hessian::AMHCopula::cdf
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

Here is the caller graph for this function:

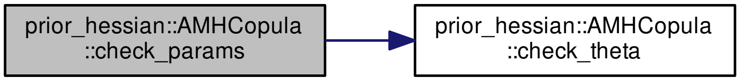

prior_hessian::AMHCopula::cdf
prior_hessian::AMHCopula ::set_params_iter

7.2.4.3 template< int Ndim> template< class Vec > static bool prior_hessian::AMHCopula< Ndim >::check_params (const Vec & *params*) [inline], [static]

Definition at line 45 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::check_theta().

Here is the call graph for this function:

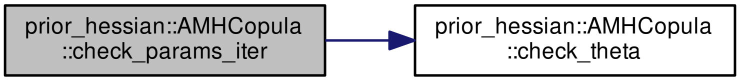

prior_hessian::AMHCopula ::check_params
prior_hessian::AMHCopula ::check_theta

7.2.4.4 template<int Ndim> template<class IterT > static bool prior_hessian::AMHCopula< Ndim >::check_params_iter (IterT & *params*) [inline], [static]

Definition at line 49 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::check_theta().

Here is the call graph for this function:

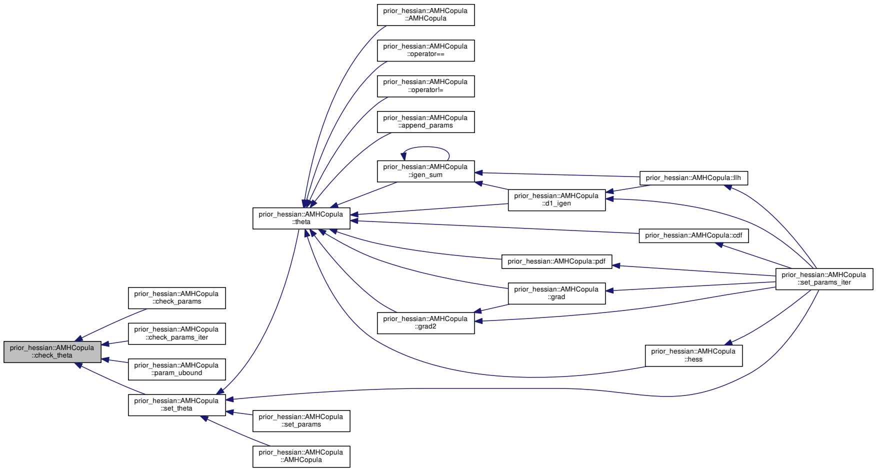


7.2.4.5 template<int Ndim> bool prior_hessian::AMHCopula< Ndim >::check_theta (double *val*) [static]

Definition at line 163 of file AMHCopula.h.

Referenced by prior_hessian::AMHCopula< Ndim >::check_params(), prior_hessian::AMHCopula< Ndim >::check_params_iter(), prior_hessian::AMHCopula< Ndim >::param_ubound(), and prior_hessian::AMHCopula< Ndim >::set_theta().

Here is the caller graph for this function:



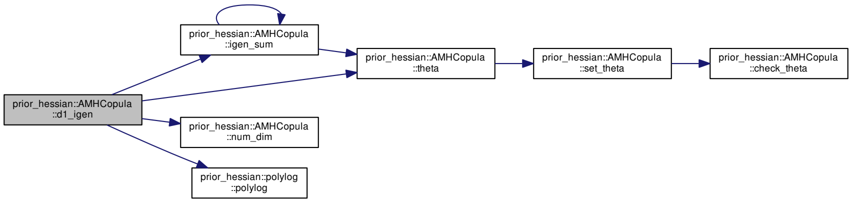
7.2.4.6 template< int Ndim > double prior_hessian::AMHCopula< Ndim >::d1_igen (double *u*) const

Definition at line 284 of file AMHCopula.h.

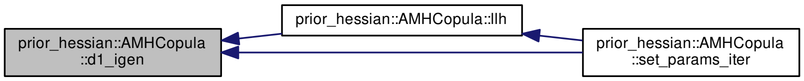
References prior_hessian::AMHCopula< Ndim >::igen_sum(), prior_hessian::AMHCopula< Ndim >::num_dim(), prior_hessian::polylog::polylog(), and prior_hessian::AMHCopula< Ndim >::theta().

Referenced by prior_hessian::AMHCopula< Ndim >::llh(), and prior_hessian::AMHCopula< Ndim >::set_params_↩ iter().

Here is the call graph for this function:


prior_hessian::AMHCopula ::igen_sum
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta
prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula ::num_dim
prior_hessian::polylog ::polylog

Here is the caller graph for this function:


prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula::llh
prior_hessian::AMHCopula ::set_params_iter

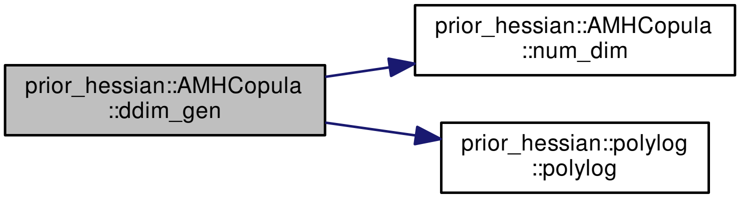
7.2.4.7 template< int Ndim > double prior_hessian::AMHCopula< Ndim >::ddim_gen (double *t*) const

Definition at line 270 of file AMHCopula.h.

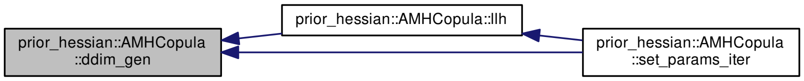
References prior_hessian::AMHCopula< Ndim >::num_dim(), and prior_hessian::polylog::polylog().

Referenced by prior_hessian::AMHCopula< Ndim >::llh(), and prior_hessian::AMHCopula< Ndim >::set_params_↩ iter().

Here is the call graph for this function:


prior_hessian::AMHCopula ::ddim_gen
prior_hessian::AMHCopula ::num_dim
prior_hessian::polylog ::polylog

Here is the caller graph for this function:

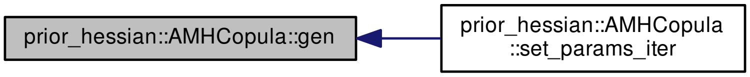


7.2.4.8 template<int Ndim> double prior_hessian::AMHCopula< Ndim >::gen (double *t*) const

Definition at line 265 of file AMHCopula.h.

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the caller graph for this function:



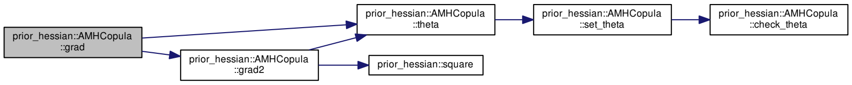
7.2.4.9 template<int Ndim> template<class Vec > AMHCopula< Ndim >::NdimVecT prior_hessian::AMHCopula< Ndim >::grad (const Vec & *u*) const

Definition at line 220 of file AMHCopula.h.

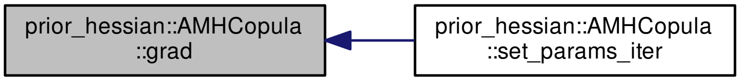
References prior_hessian::AMHCopula< Ndim >::grad2(), and prior_hessian::AMHCopula< Ndim >::theta().

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the call graph for this function:



Here is the caller graph for this function:


prior_hessian::AMHCopula ::grad
prior_hessian::AMHCopula ::set_params_iter

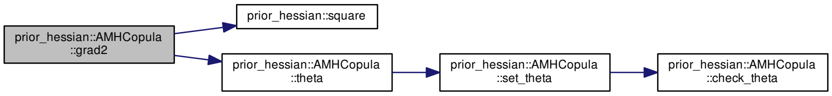
7.2.4.10 template< int Ndim> template< class Vec > AMHCopula< Ndim >::NdimVecT prior_hessian::AMHCopula< Ndim >::grad2 (const Vec & *u*) const

Definition at line 234 of file AMHCopula.h.

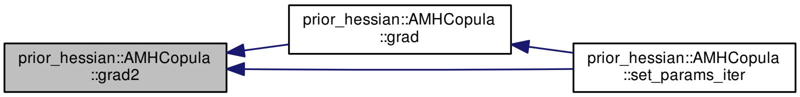
References prior_hessian::square(), and prior_hessian::AMHCopula< Ndim >::theta().

Referenced by prior_hessian::AMHCopula< Ndim >::grad(), and prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the call graph for this function:


prior_hessian::AMHCopula ::grad2
prior_hessian::square
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

Here is the caller graph for this function:


prior_hessian::AMHCopula ::grad2
prior_hessian::AMHCopula ::grad
prior_hessian::AMHCopula ::set_params_iter

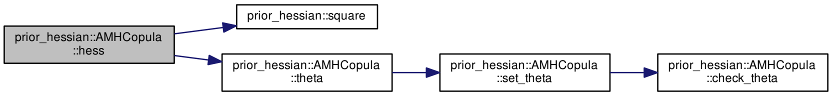
7.2.4.11 template<int Ndim> template<class Vec > AMHCopula< Ndim >::NdimMatT prior_hessian::AMHCopula< Ndim >::hess (const Vec & *u*) const

Definition at line 248 of file AMHCopula.h.

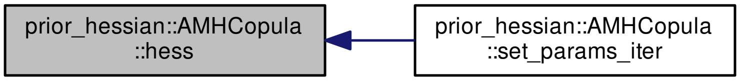
References prior_hessian::square(), and prior_hessian::AMHCopula< Ndim >::theta().

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the call graph for this function:


prior_hessian::AMHCopula ::hess
prior_hessian::square
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

Here is the caller graph for this function:

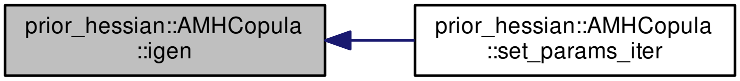

prior_hessian::AMHCopula ::hess
prior_hessian::AMHCopula ::set_params_iter

7.2.4.12 template<int Ndim> double prior_hessian::AMHCopula< Ndim >::igen (double *u*) const

Definition at line 279 of file AMHCopula.h.

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the caller graph for this function:


prior_hessian::AMHCopula ::igen
prior_hessian::AMHCopula ::set_params_iter

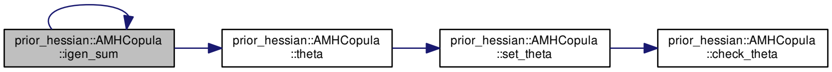
7.2.4.13 template<int Ndim> template<class Vec > double **prior_hessian::AMHCopula**< Ndim >::igen_sum (const Vec & *u*) [inline]

Definition at line 97 of file AMHCopula.h.

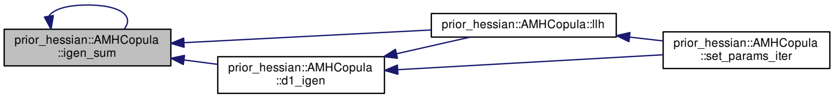
References prior_hessian::AMHCopula< Ndim >::igen_sum(), and prior_hessian::AMHCopula< Ndim >::theta().

Referenced by prior_hessian::AMHCopula< Ndim >::d1_igen(), prior_hessian::AMHCopula< Ndim >::igen_sum(), and prior_hessian::AMHCopula< Ndim >::llh().

Here is the call graph for this function:


prior_hessian::AMHCopula ::igen_sum
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

Here is the caller graph for this function:


prior_hessian::AMHCopula ::igen_sum
prior_hessian::AMHCopula::llh
prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula ::set_params_iter

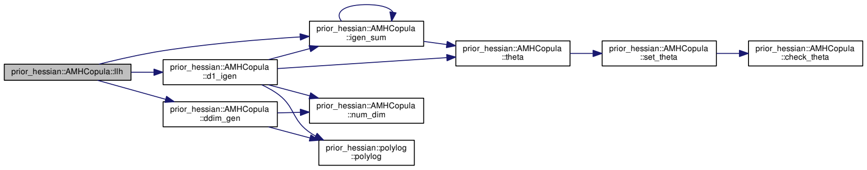
7.2.4.14 template<int Ndim> template<class Vec > double **prior_hessian::AMHCopula**< Ndim >::llh (const Vec & *u*) const

Definition at line 210 of file AMHCopula.h.

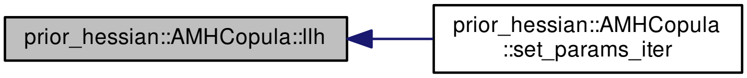
References prior_hessian::AMHCopula< Ndim >::d1_igen(), prior_hessian::AMHCopula< Ndim >::ddim_gen(), and prior_hessian::AMHCopula< Ndim >::igen_sum().

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the call graph for this function:


prior_hessian::AMHCopula::llh
prior_hessian::AMHCopula ::igen_sum
prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula ::ddim_gen
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta
prior_hessian::AMHCopula ::num_dim
prior_hessian::polylog ::polylog

Here is the caller graph for this function:

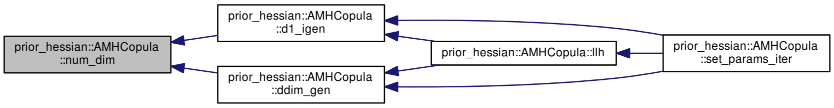

prior_hessian::AMHCopula::llh
prior_hessian::AMHCopula ::set_params_iter

7.2.4.15 template<int Ndim> static constexpr IdxT prior_hessian::AMHCopula< Ndim >::num_dim ( ) [inline], [static]

Definition at line 30 of file AMHCopula.h.

Referenced by prior_hessian::AMHCopula< Ndim >::d1_igen(), and prior_hessian::AMHCopula< Ndim >::ddim_gen().

Here is the caller graph for this function:


prior_hessian::AMHCopula ::num_dim
prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula ::ddim_gen
prior_hessian::AMHCopula::llh
prior_hessian::AMHCopula ::set_params_iter

7.2.4.16 template<int Ndim> static constexpr IdxT prior_hessian::AMHCopula< Ndim >::num_params ( ) [inline], [static]

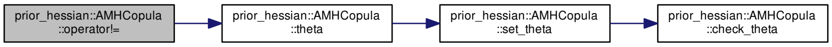
Definition at line 29 of file AMHCopula.h.

7.2.4.17 template<int Ndim> bool prior_hessian::AMHCopula< Ndim >::operator!= (const AMHCopula< Ndim > & *o*) const [inline]

Definition at line 42 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::theta().

Here is the call graph for this function:

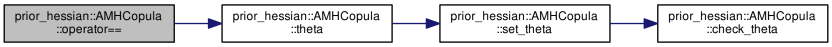

prior_hessian::AMHCopula ::operator!=
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

7.2.4.18 template<int Ndim> bool prior_hessian::AMHCopula< Ndim >::operator== (const AMHCopula< Ndim > & *o*) const [inline]

Definition at line 41 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::theta().

Here is the call graph for this function:


prior_hessian::AMHCopula ::operator==
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

7.2.4.19 template<int Ndim> static double prior_hessian::AMHCopula< Ndim >::param_lbound ( ) [inline], [static]

Definition at line 31 of file AMHCopula.h.

7.2.4.20 template<int Ndim> static const StringVecT& prior_hessian::AMHCopula< Ndim >::param_names ( ) [inline], [static]

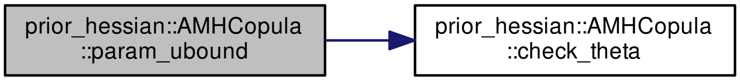
Definition at line 28 of file AMHCopula.h.

7.2.4.21 template<int Ndim> static double prior_hessian::AMHCopula< Ndim >::param_ubound ( ) [inline], [static]

Definition at line 32 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::check_theta().

Here is the call graph for this function:


prior_hessian::AMHCopula ::param_ubound
prior_hessian::AMHCopula ::check_theta

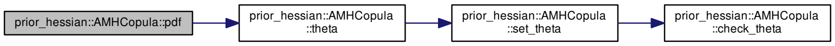
7.2.4.22 template<int Ndim> template<class Vec > double prior_hessian::AMHCopula< Ndim >::pdf (const Vec & *u*) const

Definition at line 202 of file AMHCopula.h.

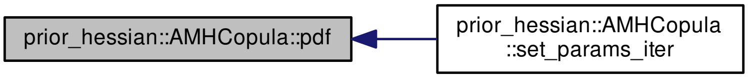
References prior_hessian::AMHCopula< Ndim >::theta().

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the call graph for this function:


prior_hessian::AMHCopula::pdf
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

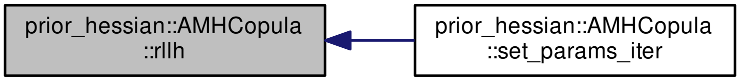
Here is the caller graph for this function:


prior_hessian::AMHCopula::pdf
prior_hessian::AMHCopula ::set_params_iter

7.2.4.23 template<int Ndim> template<class Vec > double prior_hessian::AMHCopula< Ndim >::rllh (const Vec & *u*) const

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

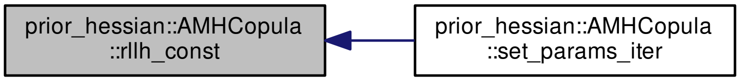
Here is the caller graph for this function:


prior_hessian::AMHCopula ::rllh
prior_hessian::AMHCopula ::set_params_iter

7.2.4.24 template< int Ndim > double prior_hessian::AMHCopula< Ndim >::rllh_const ( ) const

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

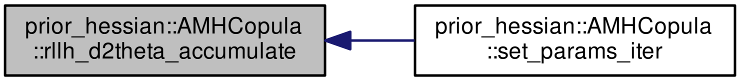
Here is the caller graph for this function:


prior_hessian::AMHCopula ::rllh_const
prior_hessian::AMHCopula ::set_params_iter

7.2.4.25 template< int Ndim > template< class Vec > static void prior_hessian::AMHCopula< Ndim >::rllh_d2theta_accumulate (double *theta,* const Vec & *u,* double & *rllh,* double & *dtheta,* double & *d2theta*) [static]

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

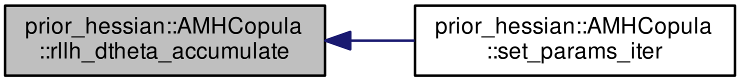
Here is the caller graph for this function:


prior_hessian::AMHCopula ::rllh_d2theta_accumulate
prior_hessian::AMHCopula ::set_params_iter

7.2.4.26 template< int Ndim > template< class Vec > static void prior_hessian::AMHCopula< Ndim >::rllh_dtheta_accumulate (double *theta,* const Vec & *u,* double & *rllh,* double & *dtheta*) [static]

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

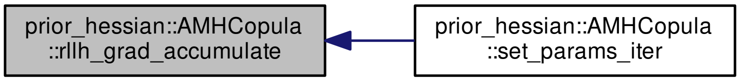
Here is the caller graph for this function:


prior_hessian::AMHCopula ::rllh_dtheta_accumulate
prior_hessian::AMHCopula ::set_params_iter

7.2.4.27 template<int Ndim> template<class Vec , class Vec2 > void prior_hessian::AMHCopula< Ndim >::rllh_grad_accumulate (const Vec & *u,* double & *rllh,* Vec2 & *grad*) const

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

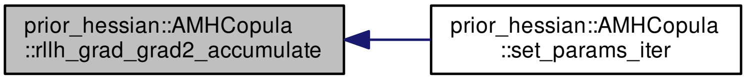
Here is the caller graph for this function:


prior_hessian::AMHCopula ::rllh_grad_accumulate
prior_hessian::AMHCopula ::set_params_iter

7.2.4.28 template<int Ndim> template<class Vec , class Vec2 > void prior_hessian::AMHCopula< Ndim >::rllh_grad_grad2_accumulate (const Vec & *u,* double & *rllh,* Vec2 & *grad,* Vec2 & *grad2*) const

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

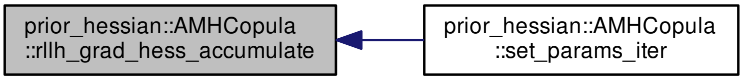
Here is the caller graph for this function:


prior_hessian::AMHCopula ::rllh_grad_grad2_accumulate
prior_hessian::AMHCopula ::set_params_iter

7.2.4.29 template<int Ndim> template<class Vec , class Vec2 , class Mat > void prior_hessian::AMHCopula< Ndim >::rllh_grad_hess_accumulate (const Vec & *u,* double & *rllh,* Vec2 & *grad,* Mat & *hess*) const

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the caller graph for this function:

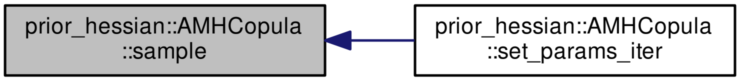

prior_hessian::AMHCopula ::rllh_grad_hess_accumulate
prior_hessian::AMHCopula ::set_params_iter

7.2.4.30 template< int Ndim > template< class RngT > AMHCopula< Ndim >::NdimVecT prior_hessian::AMHCopula< Ndim >::sample (RngT & *rng*) const

Definition at line 596 of file AMHCopula.h.

Referenced by prior_hessian::AMHCopula< Ndim >::set_params_iter().

Here is the caller graph for this function:

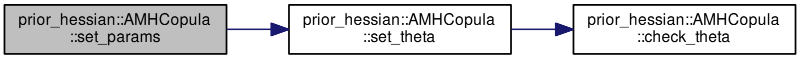

prior_hessian::AMHCopula ::sample
prior_hessian::AMHCopula ::set_params_iter

7.2.4.31 template< int Ndim > template< class Vec > void prior_hessian::AMHCopula< Ndim >::set_params (const Vec & *params*) [inline]

Definition at line 47 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::set_theta().

Here is the call graph for this function:

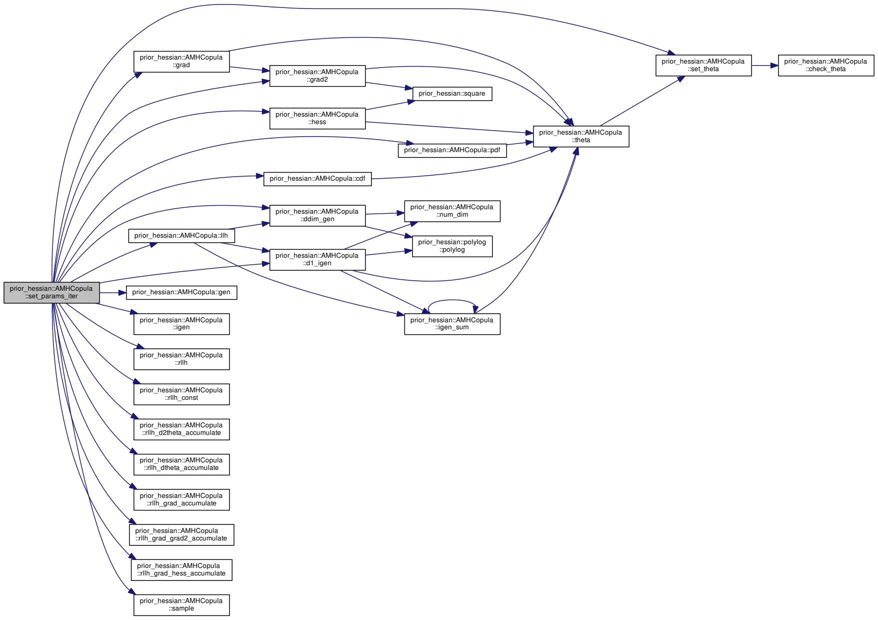

prior_hessian::AMHCopula ::set_params
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

7.2.4.32 template< int Ndim > template< class IterT > void prior_hessian::AMHCopula< Ndim >::set_params_iter (IterT & *params*) [inline]

Definition at line 53 of file AMHCopula.h.

References prior_hessian::AMHCopula< Ndim >::cdf(), prior_hessian::AMHCopula< Ndim >::d1_igen(), prior_hessian::AMHCopula< Ndim >::ddim_gen(), prior_hessian::AMHCopula< Ndim >::gen(), prior_hessian::AMHCopula< Ndim >::grad(), prior_hessian::AMHCopula< Ndim >::grad2(), prior_hessian::AMHCopula< Ndim >::hess(), prior_hessian::AMHCopula< Ndim >::igen(), prior_hessian::AMHCopula< Ndim >::llh(), prior_hessian::AMHCopula< Ndim >::pdf(), prior_hessian::AMHCopula< Ndim >::rllh(), prior_hessian::AMHCopula< Ndim >::rllh_const(), prior_hessian::AMHCopula< Ndim >::rllh_d2theta_accumulate(), prior_hessian::AMHCopula< Ndim >::rllh_dtheta_accumulate(), prior_hessian::AMHCopula< Ndim >::rllh_grad_accumulate(), prior_hessian::AMHCopula< Ndim >::rllh_grad_grad2_accumulate(), prior_hessian::AMHCopula< Ndim >::rllh_grad_hess_accumulate(), prior_hessian::AMHCopula< Ndim >::sample(), and prior_hessian::AMHCopula< Ndim >::set_theta().

Here is the call graph for this function:


prior_hessian::AMHCopula ::set_params_iter
prior_hessian::AMHCopula ::grad
prior_hessian::AMHCopula ::grad2
prior_hessian::square
prior_hessian::AMHCopula ::hess
prior_hessian::AMHCopula::pdf
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta
prior_hessian::AMHCopula::cdf
prior_hessian::AMHCopula ::ddim_gen
prior_hessian::AMHCopula ::num_dim
prior_hessian::AMHCopula::llh
prior_hessian::polylog ::polylog
prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula::gen
prior_hessian::AMHCopula ::igen_sum
prior_hessian::AMHCopula ::igen
prior_hessian::AMHCopula ::rllh
prior_hessian::AMHCopula ::rllh_const
prior_hessian::AMHCopula ::rllh_d2theta_accumulate
prior_hessian::AMHCopula ::rllh_dtheta_accumulate
prior_hessian::AMHCopula ::rllh_grad_accumulate
prior_hessian::AMHCopula ::rllh_grad_grad2_accumulate
prior_hessian::AMHCopula ::rllh_grad_hess_accumulate
prior_hessian::AMHCopula ::sample

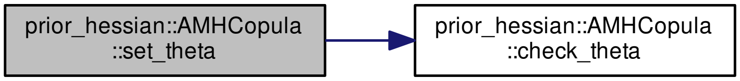
7.2.4.33 template< int Ndim> void prior_hessian::AMHCopula< Ndim >::set_theta (double *val*)

Definition at line 175 of file AMHCopula.h.

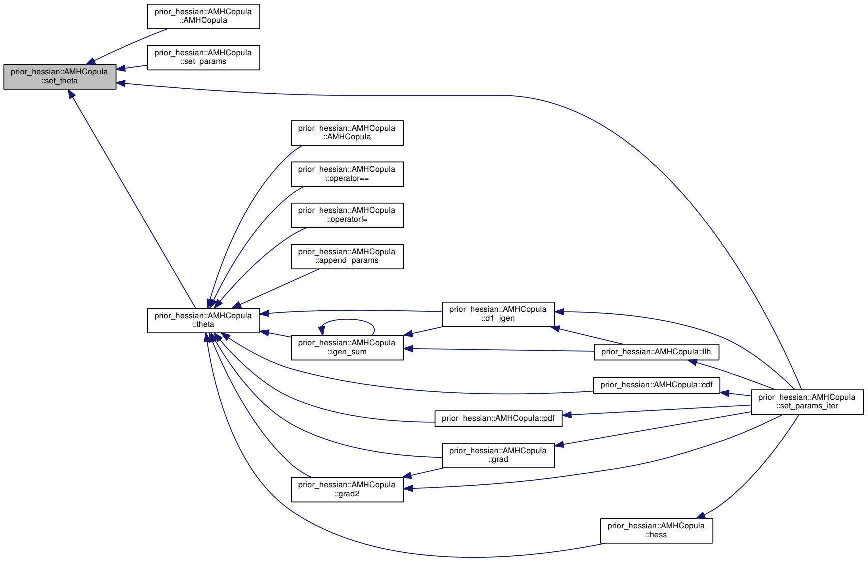
References prior_hessian::AMHCopula< Ndim >::check_theta().

Referenced by prior_hessian::AMHCopula< Ndim >::AMHCopula(), prior_hessian::AMHCopula< Ndim >::set_params(), prior_hessian::AMHCopula< Ndim >::set_params_iter(), and prior_hessian::AMHCopula< Ndim >::theta().

Here is the call graph for this function:


prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

Here is the caller graph for this function:


prior_hessian::AMHCopula ::AMHCopula
prior_hessian::AMHCopula ::set_params
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::AMHCopula
prior_hessian::AMHCopula ::operator==
prior_hessian::AMHCopula ::operator!=
prior_hessian::AMHCopula ::append_params
prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula ::igen_sum
prior_hessian::AMHCopula::llh
prior_hessian::AMHCopula::cdf
prior_hessian::AMHCopula ::set_params_iter
prior_hessian::AMHCopula::pdf
prior_hessian::AMHCopula ::grad
prior_hessian::AMHCopula ::grad2
prior_hessian::AMHCopula ::hess

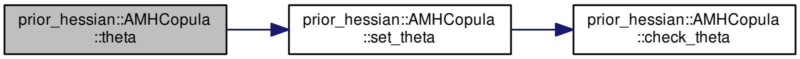
7.2.4.34 template< int Ndim > double prior_hessian::AMHCopula< Ndim >::theta ( ) const [inline]

Definition at line 38 of file AMHCopula.h.

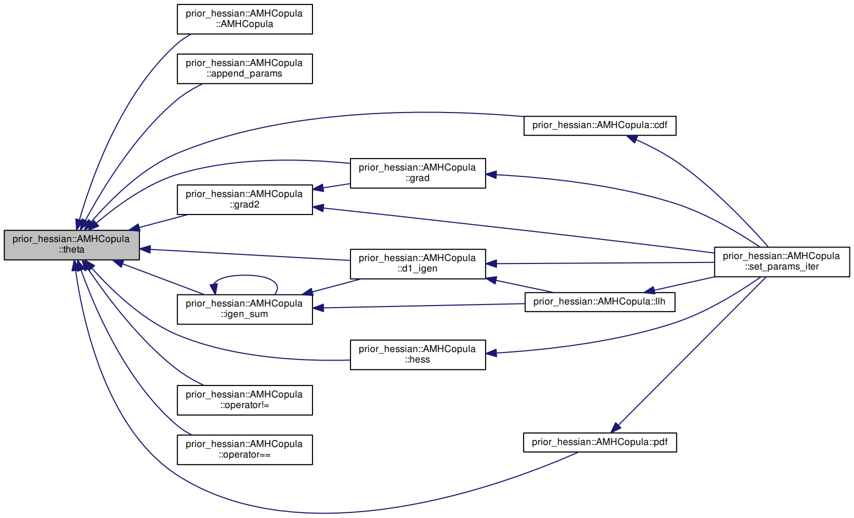
References prior_hessian::AMHCopula< Ndim >::set_theta().

Referenced by prior_hessian::AMHCopula< Ndim >::AMHCopula(), prior_hessian::AMHCopula< Ndim >::append_params(), prior_hessian::AMHCopula< Ndim >::cdf(), prior_hessian::AMHCopula< Ndim >::d1_igen(), prior_hessian::AMHCopula< Ndim >::grad(), prior_hessian::AMHCopula< Ndim >::grad2(), prior_hessian::AMHCopula< Ndim >::hess(), prior_hessian::AMHCopula< Ndim >::igen_sum(), prior_hessian::AMHCopula< Ndim >::operator!=(), prior_hessian::AMHCopula< Ndim >::operator==(), and prior_hessian::AMHCopula< Ndim >::pdf().

Here is the call graph for this function:


prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::set_theta
prior_hessian::AMHCopula ::check_theta

Here is the caller graph for this function:


prior_hessian::AMHCopula ::theta
prior_hessian::AMHCopula ::AMHCopula
prior_hessian::AMHCopula ::append_params
prior_hessian::AMHCopula::cdf
prior_hessian::AMHCopula ::grad
prior_hessian::AMHCopula ::grad2
prior_hessian::AMHCopula ::set_params_iter
prior_hessian::AMHCopula ::d1_igen
prior_hessian::AMHCopula ::igen_sum
prior_hessian::AMHCopula::llh
prior_hessian::AMHCopula ::hess
prior_hessian::AMHCopula ::operator!=
prior_hessian::AMHCopula ::operator==
prior_hessian::AMHCopula::pdf

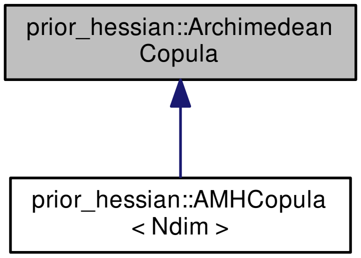
The documentation for this class was generated from the following file:

- AMHCopula.h

7.3 prior_hessian::ArchimedeanCopula Class Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula:


prior_hessian::Archimedean Copula
prior_hessian::AMHCopula < Ndim >

Classes

- struct D2_GenTerms
- struct D2_lGenTerms
- struct D2Theta_GenTerms
- struct D2Theta_lGenTerms
- struct D_GenTerms
- struct D_lGenTerms
- struct DTheta_GenTerms
- struct DTheta_lGenTerms

7.3.1 Detailed Description

Definition at line 11 of file ArchimedeanCopula.h.

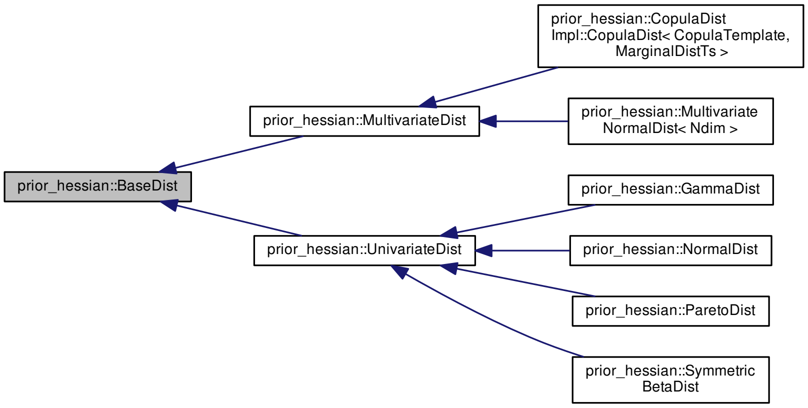
The documentation for this class was generated from the following file:

- ArchimedeanCopula.h

7.4 prior_hessian::BaseDist Class Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
BaseDist.h>
```

Inheritance diagram for prior_hessian::BaseDist:


prior_hessian::CopulaDist
Impl::CopulaDist< CopulaTemplate, MarginalDistTs >
prior_hessian::MultivariateDist
prior_hessian::Multivariate
NormalDist< Ndim >
prior_hessian::BaseDist
prior_hessian::GammaDist
prior_hessian::UnivariateDist
prior_hessian::NormalDist
prior_hessian::ParetoDist
prior_hessian::Symmetric
BetaDist

7.4.1 Detailed Description

Definition at line 11 of file BaseDist.h.

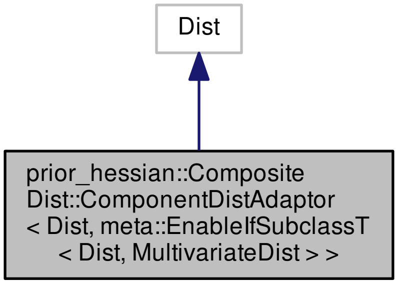
The documentation for this class was generated from the following file:

- BaseDist.h

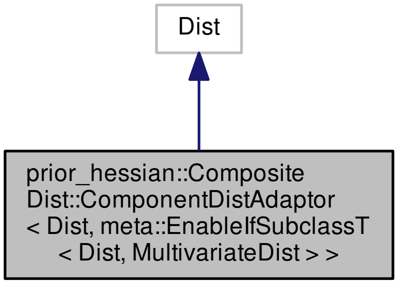
7.5 prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
CompositeDist.h>
```

Inheritance diagram for prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >:


Dist
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > >

Collaboration diagram for prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >:


Dist
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > >

Public Types

- using ComponentDistT = Dist

Public Member Functions

- ComponentDistAdaptor ()
- ComponentDistAdaptor (Dist &&dist)
- ComponentDistAdaptor (const Dist &dist)
- template<class IterT >
  void append_lbound (IterT &v) const
- template<class IterT >
  void append_ubound (IterT &v) const
- template<class IterT >
  void append_global_lbound (IterT &v) const
- template<class IterT >
  void append_global_ubound (IterT &v) const
- template<class IterT >
  void set_lbound_from_iter (IterT &v)
- template<class IterT >
  void set_ubound_from_iter (IterT &v)
- template<class IterT >
  void set_bounds_from_iter (IterT &lb_iter, IterT &ub_iter)
- template<class IterT >
  void append_params (IterT &v) const
- template<class IterT >
  void append_params_lbound (IterT &v) const
- template<class IterT >
  void append_params_ubound (IterT &v) const
- template<class IterT >
  void append_param_names (IterT &v) const
- template<class IterT >
  double cdf_from_iter (IterT &u) const
- template<class IterT >
  double pdf_from_iter (IterT &u) const
- template<class IterT >
  double llh_from_iter (IterT &u) const
- template<class IterT >
  double rllh_from_iter (IterT &u) const
- void grad_accumulate_idx (const VecT &u, VecT &g, IdxT &k) const
- void grad2_accumulate_idx (const VecT &u, VecT &g2, IdxT &k) const
- void hess_accumulate_idx (const VecT &u, MatT &h, IdxT &k) const
- void grad_grad2_accumulate_idx (const VecT &u, VecT &g, VecT &g2, IdxT &k) const
- void grad_hess_accumulate_idx (const VecT &u, VecT &g, MatT &h, IdxT &k) const
- template<class RngT , class IterT >
  void append_sample (RngT &rng, IterT &v) const

7.5.1 Detailed Description

template<class Dist>
class prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >

Definition at line 696 of file CompositeDist.h.

7.5.2 Member Typedef Documentation

7.5.2.1 template<class Dist > using prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::ComponentDistT = Dist

Definition at line 698 of file CompositeDist.h.

7.5.3 Constructor & Destructor Documentation

7.5.3.1 template<class Dist > prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::ComponentDistAdaptor ( ) [inline]

Definition at line 699 of file CompositeDist.h.

7.5.3.2 template<class Dist > prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::ComponentDistAdaptor (Dist && *dist*) [inline], [explicit]

Definition at line 700 of file CompositeDist.h.

7.5.3.3 template<class Dist > prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::ComponentDistAdaptor (const Dist & *dist*) [inline], [explicit]

Definition at line 701 of file CompositeDist.h.

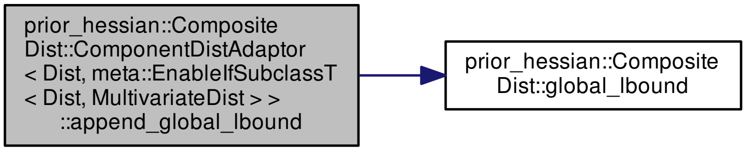
7.5.4 Member Function Documentation

7.5.4.1 template<class Dist > template<class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_global_lbound (IterT & *v*) const [inline]

Definition at line 709 of file CompositeDist.h.

References prior_hessian::CompositeDist::global_lbound().

Here is the call graph for this function:

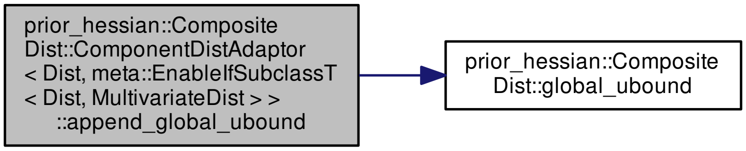


7.5.4.2 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_global_ubound (IterT & *v*) const [inline]

Definition at line 712 of file CompositeDist.h.

References prior_hessian::CompositeDist::global_ubound().

Here is the call graph for this function:

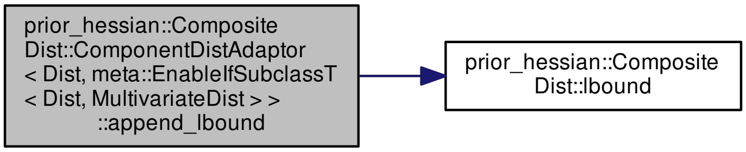


7.5.4.3 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_lbound (IterT & *v*) const [inline]

Definition at line 703 of file CompositeDist.h.

References prior_hessian::CompositeDist::lbound().

Here is the call graph for this function:

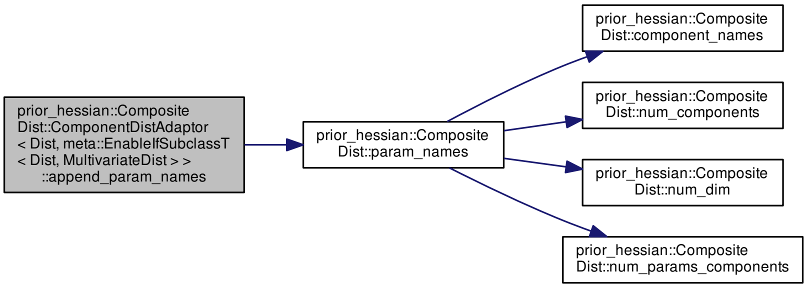

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::append_lbound
prior_hessian::Composite
Dist::lbound

7.5.4.4 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_param_names (IterT & *v*) const [inline]

Definition at line 750 of file CompositeDist.h.

References prior_hessian::CompositeDist::param_names().

Here is the call graph for this function:

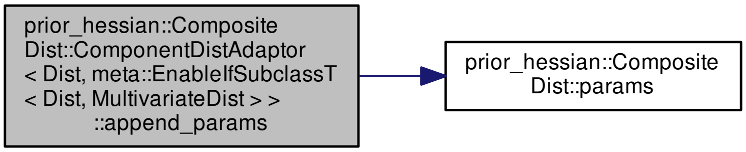

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_param_names
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::component_names
prior_hessian::Composite Dist::num_components
prior_hessian::Composite Dist::num_dim
prior_hessian::Composite Dist::num_params_components

7.5.4.5 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_params (IterT & *v*) const [inline]

Definition at line 741 of file CompositeDist.h.

References prior_hessian::CompositeDist::params().

Here is the call graph for this function:


prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_params
prior_hessian::Composite Dist::params

7.5.4.6 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_params_lbound (IterT & *v*) const [inline]

Definition at line 744 of file CompositeDist.h.

7.5.4.7 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_params_ubound (IterT & *v*) const [inline]

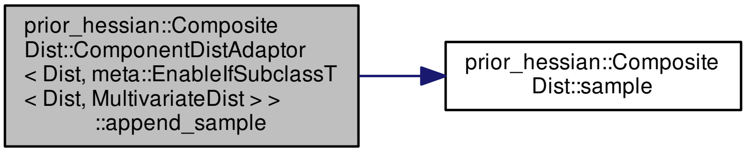
Definition at line 747 of file CompositeDist.h.

7.5.4.8 template< class Dist > template< class RngT , class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_sample (RngT & *rng,* IterT & *v*) const [inline]

Definition at line 827 of file CompositeDist.h.

References prior_hessian::CompositeDist::sample().

Here is the call graph for this function:

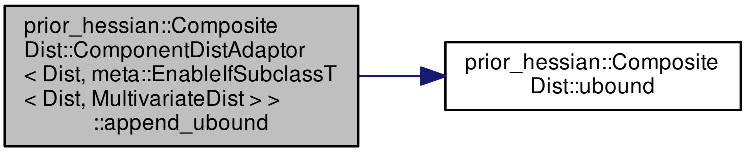

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::append_sample
prior_hessian::Composite
Dist::sample

7.5.4.9 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_ubound (IterT & *v*) const [inline]

Definition at line 706 of file CompositeDist.h.

References prior_hessian::CompositeDist::ubound().

Here is the call graph for this function:

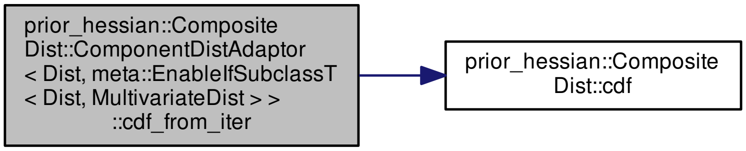

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::append_ubound
prior_hessian::Composite
Dist::ubound

7.5.4.10 template<class Dist > template<class IterT > double prior_hessian::CompositeDist::ComponentDist↩ Adaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::cdf_from_iter (IterT & *u*) const [inline]

Definition at line 753 of file CompositeDist.h.

References prior_hessian::CompositeDist::cdf().

Here is the call graph for this function:

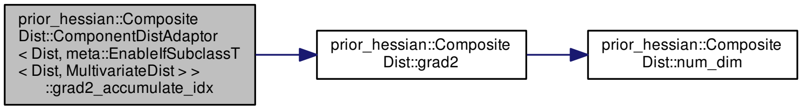

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::cdf_from_iter
prior_hessian::Composite
Dist::cdf

7.5.4.11 template<class Dist > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad2_accumulate_idx (const VecT & *u*, VecT & *g2*, IdxT & *k*) const [inline]

Definition at line 792 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad2().

Here is the call graph for this function:

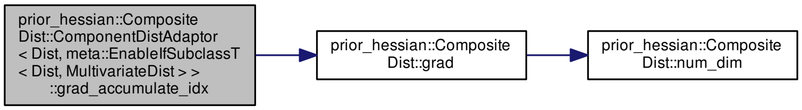


7.5.4.12 template<class Dist > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad_accumulate_idx (const VecT & *u*, VecT & *g*, IdxT & *k*) const [inline]

Definition at line 785 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad().

Here is the call graph for this function:

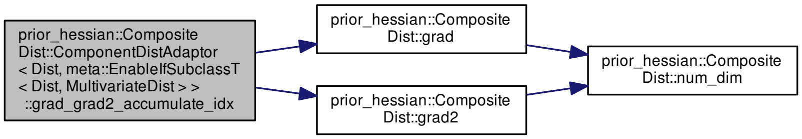

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_accumulate_idx
prior_hessian::Composite Dist::grad
prior_hessian::Composite Dist::num_dim

7.5.4.13 template< class Dist > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad_grad2_accumulate_idx (const VecT & *u,* VecT & *g,* VecT & *g2,* IdxT & *k*) const [inline]

Definition at line 807 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad(), and prior_hessian::CompositeDist::grad2().

Here is the call graph for this function:

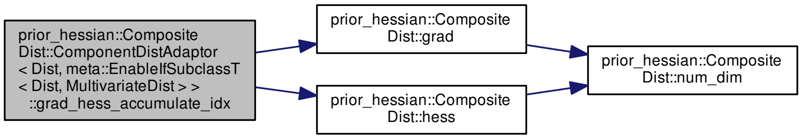

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_grad2_accumulate_idx
prior_hessian::Composite Dist::grad
prior_hessian::Composite Dist::grad2
prior_hessian::Composite Dist::num_dim

7.5.4.14 template< class Dist > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad_hess_accumulate_idx (const VecT & *u,* VecT & *g,* MatT & *h,* IdxT & *k*) const [inline]

Definition at line 816 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad(), and prior_hessian::CompositeDist::hess().

Here is the call graph for this function:

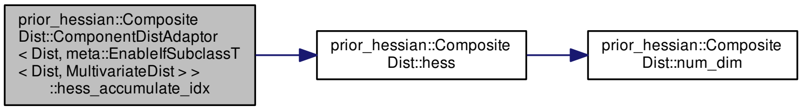

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_hess_accumulate_idx
prior_hessian::Composite Dist::grad
prior_hessian::Composite Dist::hess
prior_hessian::Composite Dist::num_dim

7.5.4.15 template< class Dist > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::hess_accumulate_idx (const VecT & *u*, MatT & *h*, IdxT & *k*) const [inline]

Definition at line 799 of file CompositeDist.h.

References prior_hessian::CompositeDist::hess().

Here is the call graph for this function:

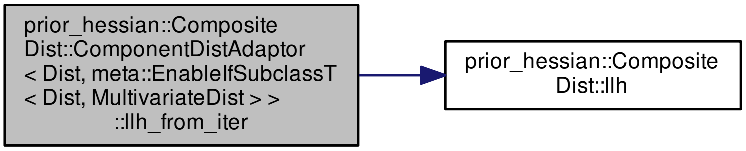

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::hess_accumulate_idx
prior_hessian::Composite Dist::hess
prior_hessian::Composite Dist::num_dim

7.5.4.16 template< class Dist > template< class IterT > double prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::llh_from_iter (IterT & *u*) const [inline]

Definition at line 769 of file CompositeDist.h.

References prior_hessian::CompositeDist::llh().

Here is the call graph for this function:

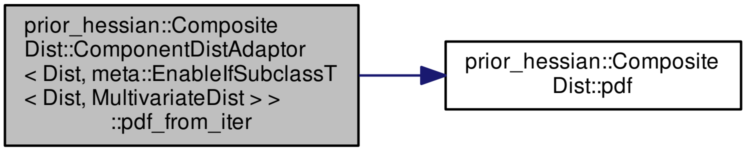

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::llh_from_iter
prior_hessian::Composite Dist::llh

7.5.4.17 template< class Dist > template< class IterT > double prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::pdf_from_iter (IterT & *u*) const [inline]

Definition at line 761 of file CompositeDist.h.

References prior_hessian::CompositeDist::pdf().

Here is the call graph for this function:

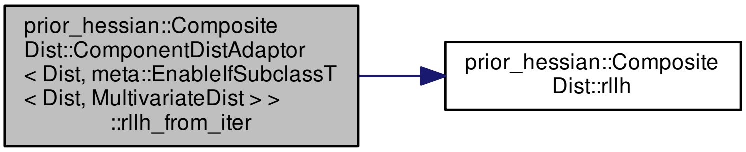

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::pdf_from_iter
prior_hessian::Composite
Dist::pdf

7.5.4.18 template< class Dist > template< class IterT > double **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **MultivariateDist** > >::rllh_from_iter (IterT & *u*) const [inline]

Definition at line 777 of file CompositeDist.h.

References prior_hessian::CompositeDist::rllh().

Here is the call graph for this function:

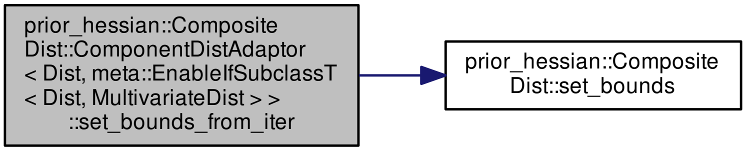

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::rllh_from_iter
prior_hessian::Composite
Dist::rllh

7.5.4.19 template< class Dist > template< class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **MultivariateDist** > >::set_bounds_from_iter (IterT & *lb_iter,* IterT & *ub_iter*) [inline]

Definition at line 731 of file CompositeDist.h.

References prior_hessian::CompositeDist::set_bounds().

Here is the call graph for this function:

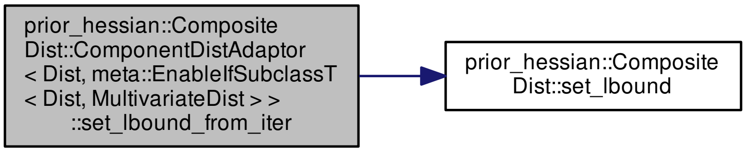

prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > > ::set_bounds_from_iter
prior_hessian::CompositeDist::set_bounds

7.5.4.20 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::set_lbound_from_iter (IterT & *v*) [inline]

Definition at line 715 of file CompositeDist.h.

References prior_hessian::CompositeDist::set_lbound().

Here is the call graph for this function:

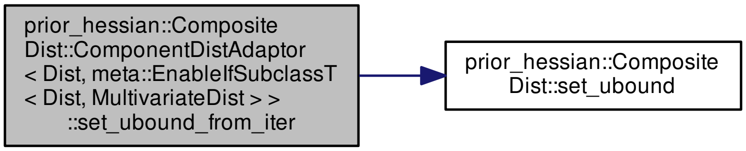

prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > > ::set_lbound_from_iter
prior_hessian::CompositeDist::set_lbound

7.5.4.21 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::set_ubound_from_iter (IterT & *v*) [inline]

Definition at line 723 of file CompositeDist.h.

References prior_hessian::CompositeDist::set_ubound().

Here is the call graph for this function:


prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > > ::set_ubound_from_iter
prior_hessian::CompositeDist::set_ubound

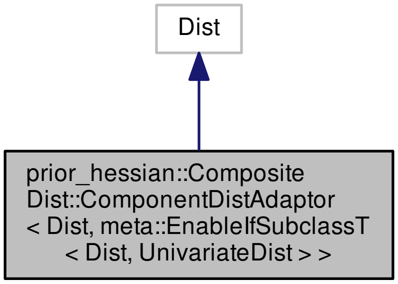
The documentation for this class was generated from the following file:

- CompositeDist.h

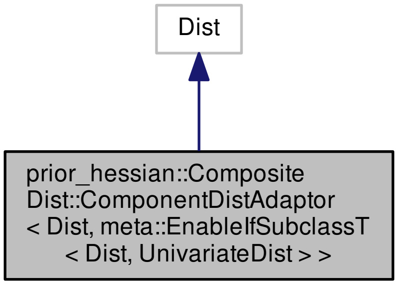
7.6 prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
CompositeDist.h>
```

Inheritance diagram for prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >:


Dist
prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >

Collaboration diagram for prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >:


Dist
prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >

Public Types

- using ComponentDistT = Dist

Public Member Functions

- ComponentDistAdaptor ()
- ComponentDistAdaptor (Dist &&dist)
- ComponentDistAdaptor (const Dist &dist)
- template<class IterT >
  void append_lbound (IterT &v) const
- template<class IterT >
  void append_ubound (IterT &v) const
- template<class IterT >
  void append_global_lbound (IterT &v) const
- template<class IterT >
  void append_global_ubound (IterT &v) const
- template<class IterT >
  void set_lbound_from_iter (IterT &lbounds)
- template<class IterT >
  void set_ubound_from_iter (IterT &ubounds)
- template<class IterT >
  void set_bounds_from_iter (IterT &lbounds, IterT &ubounds)
- template<class IterT >
  void append_params (IterT &v) const
- template<class IterT >
  void append_params_lbound (IterT &v) const
- template<class IterT >
  void append_params_ubound (IterT &v) const
- template<class IterT >
  void append_param_names (IterT &v) const
- template<class IterT >
  double cdf_from_iter (IterT &u) const
- template<class IterT >
  double pdf_from_iter (IterT &u) const
- template<class IterT >
  double llh_from_iter (IterT &u) const
- template<class IterT >
  double rllh_from_iter (IterT &u) const
- void grad_accumulate_idx (const VecT &u, VecT &g, IdxT &k) const
- void grad2_accumulate_idx (const VecT &u, VecT &g2, IdxT &k) const
- void hess_accumulate_idx (const VecT &u, MatT &h, IdxT &k) const
- void grad_grad2_accumulate_idx (const VecT &u, VecT &g, VecT &g2, IdxT &k) const
- void grad_hess_accumulate_idx (const VecT &u, VecT &g, MatT &h, IdxT &k) const
- template<class RngT , class IterT >
  void append_sample (RngT &rng, IterT &iter) const

7.6.1 Detailed Description

template<class Dist>
class prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >

Definition at line 626 of file CompositeDist.h.

7.6.2 Member Typedef Documentation

7.6.2.1 template<class Dist > using **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >**::ComponentDistT** = Dist

Definition at line 628 of file CompositeDist.h.

7.6.3 Constructor & Destructor Documentation

7.6.3.1 template<class Dist > **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >**::ComponentDistAdaptor** ( ) [inline]

Definition at line 629 of file CompositeDist.h.

7.6.3.2 template<class Dist > **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >**::ComponentDistAdaptor** (Dist && *dist*) [inline], [explicit]

Definition at line 630 of file CompositeDist.h.

7.6.3.3 template<class Dist > **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >**::ComponentDistAdaptor** (const Dist & *dist*) [inline], [explicit]

Definition at line 631 of file CompositeDist.h.

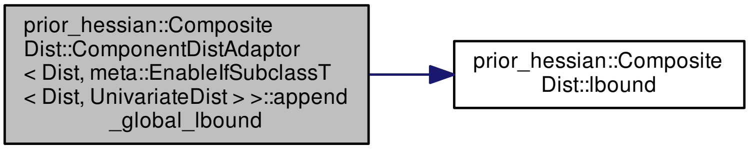
7.6.4 Member Function Documentation

7.6.4.1 template<class Dist > template<class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::append_global_lbound (IterT & *v*) const [inline]

Definition at line 635 of file CompositeDist.h.

References prior_hessian::CompositeDist::lbound().

Here is the call graph for this function:

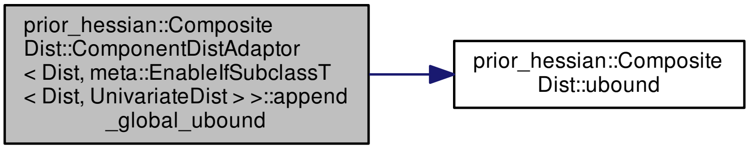

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::append
_global_lbound
prior_hessian::Composite
Dist::lbound

7.6.4.2 template<class Dist > template<class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_global_ubound (IterT & *v*) const [inline]

Definition at line 636 of file CompositeDist.h.

References prior_hessian::CompositeDist::ubound().

Here is the call graph for this function:

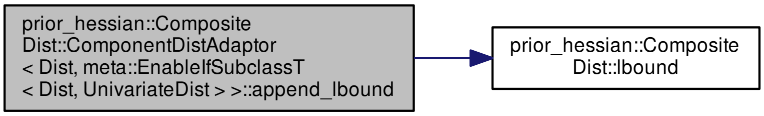

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::append
_global_ubound
prior_hessian::Composite
Dist::ubound

7.6.4.3 template<class Dist > template<class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_lbound (IterT & *v*) const [inline]

Definition at line 633 of file CompositeDist.h.

References prior_hessian::CompositeDist::lbound().

Here is the call graph for this function:

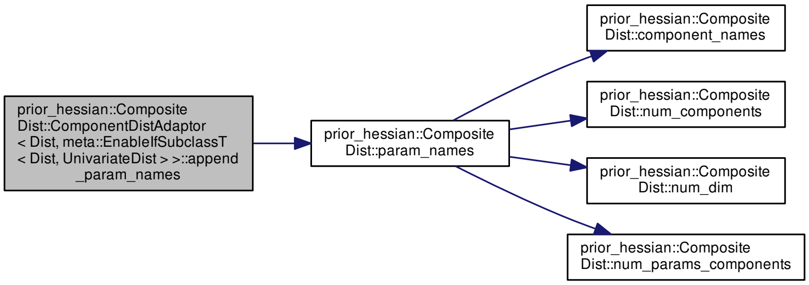

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::append_lbound
prior_hessian::Composite
Dist::lbound

7.6.4.4 template<class Dist > template<class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_param_names (IterT & *v*) const [inline]

Definition at line 652 of file CompositeDist.h.

References prior_hessian::CompositeDist::param_names().

Here is the call graph for this function:

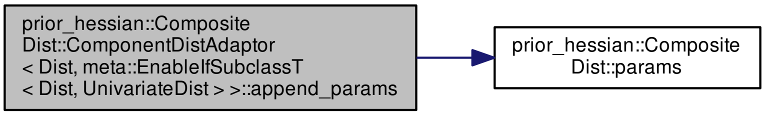

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append _param_names
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::component_names
prior_hessian::Composite Dist::num_components
prior_hessian::Composite Dist::num_dim
prior_hessian::Composite Dist::num_params_components

7.6.4.5 template< class Dist > template< class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::append_params (IterT & *v*) const [inline]

Definition at line 643 of file CompositeDist.h.

References prior_hessian::CompositeDist::params().

Here is the call graph for this function:


prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append_params
prior_hessian::Composite Dist::params

7.6.4.6 template< class Dist > template< class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::append_params_lbound (IterT & *v*) const [inline]

Definition at line 646 of file CompositeDist.h.

7.6.4.7 template< class Dist > template< class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::append_params_ubound (IterT & *v*) const [inline]

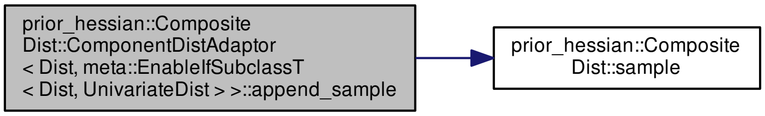
Definition at line 649 of file CompositeDist.h.

7.6.4.8 template< class Dist > template< class RngT , class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::append_sample (RngT & *rng*, IterT & *iter*) const [inline]

Definition at line 691 of file CompositeDist.h.

References prior_hessian::CompositeDist::sample().

Here is the call graph for this function:

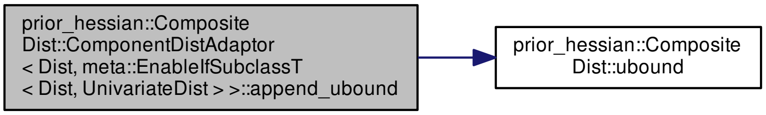

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::append_sample
prior_hessian::Composite
Dist::sample

7.6.4.9 template< class Dist > template< class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::append_ubound (IterT & *v*) const [inline]

Definition at line 634 of file CompositeDist.h.

References prior_hessian::CompositeDist::ubound().

Here is the call graph for this function:

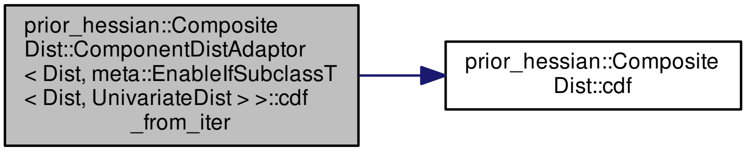

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::append_ubound
prior_hessian::Composite
Dist::ubound

7.6.4.10 template< class Dist > template< class IterT > double **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::cdf_from_iter (IterT & *u*) const [inline]

Definition at line 655 of file CompositeDist.h.

References prior_hessian::CompositeDist::cdf().

Here is the call graph for this function:

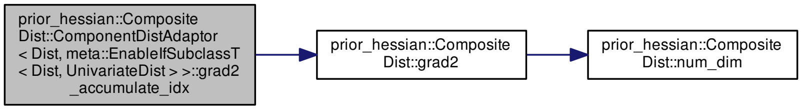

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::cdf _from_iter
prior_hessian::Composite Dist::cdf

7.6.4.11 template< class Dist > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::grad2_accumulate_idx (const VecT & *u*, VecT & *g2*, IdxT & *k*) const [inline]

Definition at line 666 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad2().

Here is the call graph for this function:

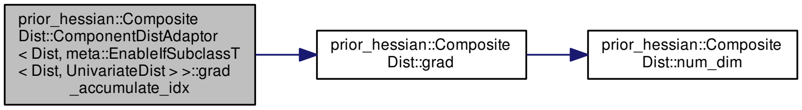

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::grad2 _accumulate_idx
prior_hessian::Composite Dist::grad2
prior_hessian::Composite Dist::num_dim

7.6.4.12 template< class Dist > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::grad_accumulate_idx (const VecT & *u*, VecT & *g*, IdxT & *k*) const [inline]

Definition at line 660 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad().

Here is the call graph for this function:

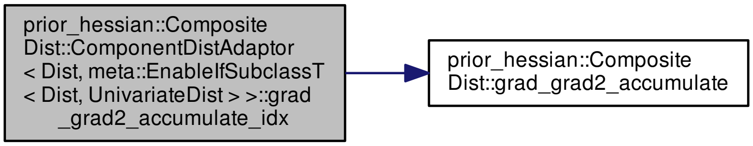

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::grad _accumulate_idx
prior_hessian::Composite Dist::grad
prior_hessian::Composite Dist::num_dim

7.6.4.13 template< class Dist > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::grad_grad2_accumulate_idx (const **VecT** & *u*, **VecT** & *g*, **VecT** & *g2*, **IdxT** & *k*) const [inline]

Definition at line 678 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad_grad2_accumulate().

Here is the call graph for this function:

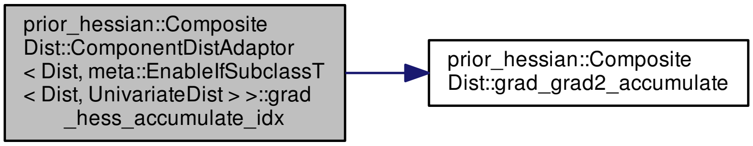

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::grad
_grad2_accumulate_idx
prior_hessian::Composite
Dist::grad_grad2_accumulate

7.6.4.14 template< class Dist > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::grad_hess_accumulate_idx (const **VecT** & *u*, **VecT** & *g*, **MatT** & *h*, **IdxT** & *k*) const [inline]

Definition at line 684 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad_grad2_accumulate().

Here is the call graph for this function:

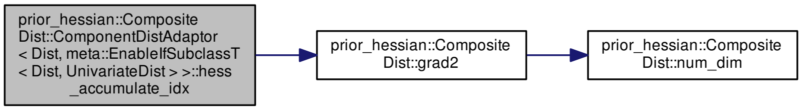

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::grad
_hess_accumulate_idx
prior_hessian::Composite
Dist::grad_grad2_accumulate

7.6.4.15 template< class Dist > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::hess_accumulate_idx (const VecT & *u*, MatT & *h*, IdxT & *k*) const [inline]

Definition at line 672 of file CompositeDist.h.

References prior_hessian::CompositeDist::grad2().

Here is the call graph for this function:

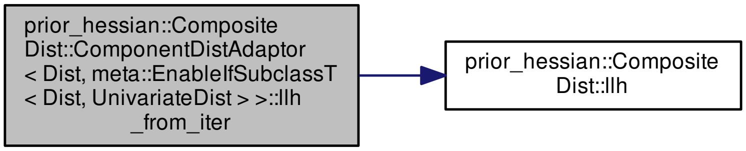

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::hess _accumulate_idx
prior_hessian::Composite Dist::grad2
prior_hessian::Composite Dist::num_dim

7.6.4.16 template< class Dist > template< class IterT > double prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::llh_from_iter (IterT & *u*) const [inline]

Definition at line 657 of file CompositeDist.h.

References prior_hessian::CompositeDist::llh().

Here is the call graph for this function:

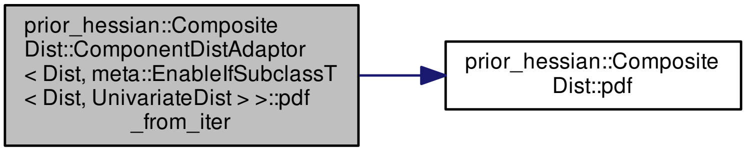

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::llh _from_iter
prior_hessian::Composite Dist::llh

7.6.4.17 template< class Dist > template< class IterT > double prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::pdf_from_iter (IterT & *u*) const [inline]

Definition at line 656 of file CompositeDist.h.

References prior_hessian::CompositeDist::pdf().

Here is the call graph for this function:

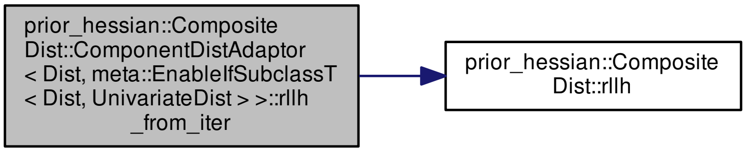

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::pdf _from_iter
prior_hessian::Composite Dist::pdf

7.6.4.18 template< class Dist > template< class IterT > double prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::rllh_from_iter (IterT & *u*) const [inline]

Definition at line 658 of file CompositeDist.h.

References prior_hessian::CompositeDist::rllh().

Here is the call graph for this function:

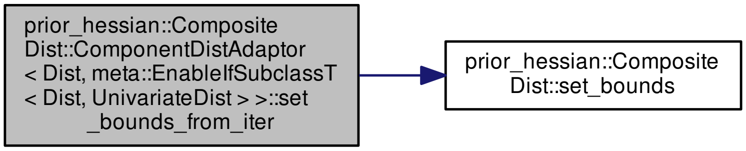

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::rllh _from_iter
prior_hessian::Composite Dist::rllh

7.6.4.19 template< class Dist > template< class IterT > void prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::set_bounds_from_iter (IterT & *lbounds,* IterT & *ubounds*) [inline]

Definition at line 640 of file CompositeDist.h.

References prior_hessian::CompositeDist::set_bounds().

Here is the call graph for this function:

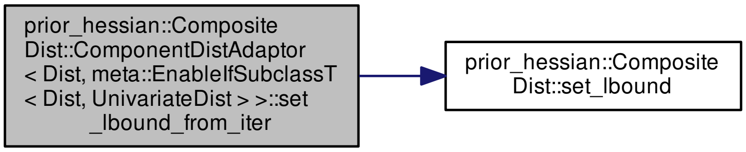

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::set
_bounds_from_iter
prior_hessian::Composite
Dist::set_bounds

7.6.4.20 template< class Dist > template< class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::set_lbound_from_iter (IterT & *lbounds*) `[inline]`

Definition at line 637 of file CompositeDist.h.

References prior_hessian::CompositeDist::set_lbound().

Here is the call graph for this function:

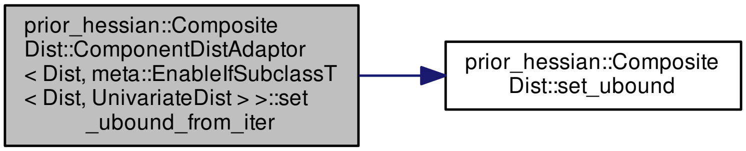

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::set
_lbound_from_iter
prior_hessian::Composite
Dist::set_lbound

7.6.4.21 template< class Dist > template< class IterT > void **prior_hessian::CompositeDist::ComponentDistAdaptor**< Dist, **meta::EnableIfSubclassT**< Dist, **UnivariateDist** > >::set_ubound_from_iter (IterT & *ubounds*) `[inline]`

Definition at line 638 of file CompositeDist.h.

References prior_hessian::CompositeDist::set_ubound().

Here is the call graph for this function:


prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::set
_ubound_from_iter
prior_hessian::Composite
Dist::set_ubound

The documentation for this class was generated from the following file:

- CompositeDist.h

7.7 prior_hessian::CompositeDist Class Reference

A probability distribution made of independent component distributions composing groups of 1 or more variables.

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
CompositeDist.h>
```

Classes

- class ComponentDistAdaptor
- class ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >
- class ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >

Public Types

- using AnyRngT = any_rng::AnyRng< std::size_t >
- template<class DistT >
  using ComponentDistT = ComponentDistAdaptor< BoundsAdaptedDistT< std::remove_reference_t< DistT >>>

Public Member Functions

- CompositeDist ()
- template<class... Ts, meta::ConstructableIfAllAreNotTupleAndAreNotT< CompositeDist, Ts... > = true>
  CompositeDist (Ts &&...dists)

  Construct from a variadic list of subclasses of UnivariateDist's or MulitvariateDist's.
- template<class... Ts>
  CompositeDist (std::tuple< Ts... > &&dist_tuple)

  Construct from a rvalue tuple of subclasses of UnivariateDist's or MulitvariateDist's.
- template<class... Ts>
  CompositeDist (const std::tuple< Ts... > &dist_tuple)

  Construct from a lvalue tuple of subclasses of UnivariateDist's or MulitvariateDist's.
- void initialize ()
- void initialize (const std::tuple<> &)

  Initialize to the empty state.
- void initialize (std::tuple<> &&)

  Initialize of an empty lvalue tuple produces the empty state.
- template<class... Ts, typename = meta::EnableIfAllAreNotTupleT<Ts...>>
  void initialize (Ts &&...dists)

  Initialize of an empty rvalue tuple produces the empty state.
- template<class... Ts, typename = meta::EnableIfAllAreNotTupleT<Ts...>>
  void initialize (std::tuple< Ts... > &&dist_tuple)
- template<class... Ts, typename = meta::EnableIfNonEmpty<Ts...>>
  void initialize (const std::tuple< Ts... > &dist_tuple)
- CompositeDist (const CompositeDist &)
- CompositeDist & operator= (const CompositeDist &)
- CompositeDist (CompositeDist &&)
- CompositeDist & operator= (CompositeDist &&)
- void clear ()
- template<class... Ts>
  const std::tuple< Ts... > & get_dist_tuple () const
- bool is_empty () const
- operator bool () const
- IdxT num_components () const
- TypeInfoVecT component_types () const
- const StringVecT & component_names () const
- template<class StringVec >
  void set_component_names (StringVec &&names)
- bool operator== (const CompositeDist &o) const
- bool operator!= (const CompositeDist &o) const
- IdxT num_dim () const
- UVecT num_dim_components () const
- const StringVecT & dim_variables () const
- template<class StringVec >
  void set_dim_variables (StringVec &&vars)
- VecT lbound () const
- VecT ubound () const
- VecT global_lbound () const
- VecT global_ubound () const
- bool in_bounds (const VecT &u) const

- bool in_bounds_all (const MatT &u) const
- void set_lbound (const VecT &new_bound)
- void set_ubound (const VecT &new_bound)
- void set_bounds (const VecT &new_lbound, const VecT &new_ubound)
- IdxT num_params () const
- UVecT num_params_components () const
- VecT params () const
- void set_params (const VecT &new_params)
- bool check_params (const VecT &new_params) const
- VecT params_lbound () const
- VecT params_ubound () const
- std::vector< VecT > params_components () const
- const StringVecT & param_names () const
- template<class StringVec >
  void set_param_names (StringVec &&vars)
- bool has_dim_variable (const std::string &name) const
- IdxT get_dim_variable_index (const std::string &name) const
- void rename_dim_variable (const std::string &old_name, std::string new_name)
- bool has_param (const std::string &name) const
- double get_param_value (const std::string &name) const
- IdxT get_param_index (const std::string &name) const
- void set_param_value (const std::string &name, double value)
- void rename_param (const std::string &old_name, std::string new_name)
- double cdf (const VecT &u) const
- double pdf (const VecT &u) const
- double llh (const VecT &u) const
- double rllh (const VecT &u) const
- VecT grad (const VecT &u) const
- VecT grad2 (const VecT &u) const
- MatT hess (const VecT &u) const
- void grad_accumulate (const VecT &theta, VecT &grad) const
- void grad2_accumulate (const VecT &theta, VecT &grad2) const
- void hess_accumulate (const VecT &theta, MatT &hess) const
- void grad_grad2_accumulate (const VecT &theta, VecT &grad, VecT &grad2) const
- void grad_hess_accumulate (const VecT &theta, VecT &grad, MatT &hess) const
- VecT make_zero_grad () const
- MatT make_zero_hess () const
- VecT sample (AnyRngT &rng) const
- VecT sample (AnyRngT &&rng) const
- MatT sample (AnyRngT &rng, IdxT num_samples) const
- MatT sample (AnyRngT &&rng, IdxT num_samples) const
- template<class RngT >
  VecT sample (RngT &&rng) const
- template<class RngT >
  MatT sample (RngT &&rng, IdxT num_samples) const
- VecT llh_components (const VecT &u) const
- VecT rllh_components (const VecT &u) const

Static Public Member Functions

- template<class DistT >
  static meta::ReturnIfInstantiatedFromT< DistT, DistT, ComponentDistAdaptor > make_component_dist (DistT &&dist)
- template<class DistT >
  static meta::ReturnIfNotInstantiatedFromT< ComponentDistT< DistT >, DistT, ComponentDistAdaptor > make_component_dist (DistT &&dist)
- template<class... Ts>
  static std::tuple< ComponentDistT< Ts >... > make_component_dist_tuple (const std::tuple< Ts... > &dists)
- template<class... Ts, std::size_t... I>
  static std::tuple< ComponentDistT< Ts >... > make_component_dist_tuple (const std::tuple< Ts... > &dists, std::index_sequence< I... >)
- template<class... Ts>
  static std::tuple< ComponentDistT< Ts >... > make_component_dist_tuple (std::tuple< Ts... > &&dists)
- template<class... Ts, std::size_t... I>
  static std::tuple< ComponentDistT< Ts >... > make_component_dist_tuple (std::tuple< Ts... > &&dists, std::index_sequence< I... >)

7.7.1 Detailed Description

A probability distribution made of independent component distributions composing groups of 1 or more variables.

CompositeDist is a world unto itself.

class UnivariateDistInterface { static CONSTEXPR IdxT num_dim(); static CONSTEXPR IdxT num_params(); static const StringVecT param_names; double lbound() const; double ubound() const; void set_bounds(double lbound, double ubound); void set_lbound(double lbound); void set_ubound(double ubound); double get_param(int idx) const; void set_param(int idx, double val); double cdf(double x) const; double icdf(double u) const; double pdf(double x) const; double llh(double x) const; double rllh(double x) const; double grad(double x) const; double grad2(double x) const; void grad_grad2_accumulate(double x, double &g, double &g2) const; template< class RngT > double sample(RngT &rng) const; }

dim_variables and param_names are lazily computed. If they are not accessed, they are not created.

Definition at line 60 of file CompositeDist.h.

7.7.2 Class Documentation

7.7.2.1 class prior_hessian::CompositeDist::ComponentDistAdaptor

template<class DistT, typename Enable = void>
class prior_hessian::CompositeDist::ComponentDistAdaptor< DistT, Enable >

Definition at line 64 of file CompositeDist.h.

7.7.3 Member Typedef Documentation

7.7.3.1 using prior_hessian::CompositeDist::AnyRngT = any_rng::AnyRng<std::size_t>

Definition at line 67 of file CompositeDist.h.

7.7.3.2 template<class DistT > using prior_hessian::CompositeDist::ComponentDistT = ComponentDistAdaptor<BoundsAdaptedDistT<std::remove_reference_t<DistT>>>

Definition at line 844 of file CompositeDist.h.

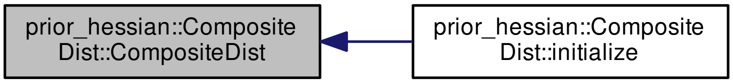
7.7.4 Constructor & Destructor Documentation

7.7.4.1 prior_hessian::CompositeDist::CompositeDist ( )

Definition at line 13 of file CompositeDist.cpp.

Referenced by initialize().

Here is the caller graph for this function:



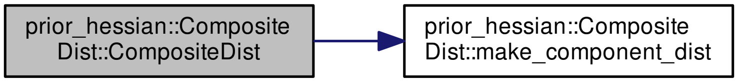
7.7.4.2 template<class... Ts, meta::ConstructableIfAllAreNotTupleAndAreNotT< CompositeDist, Ts... > = true> prior_hessian::CompositeDist::CompositeDist (Ts &&... *dists*) [inline], [explicit]

Construct from a variadic list of subclasses of UnivariateDist's or MulitvariateDist's.

Definition at line 73 of file CompositeDist.h.

References make_component_dist().

Here is the call graph for this function:



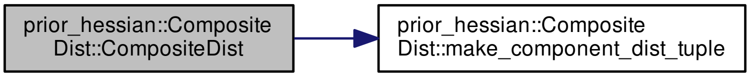
7.7.4.3 template<class... Ts> prior_hessian::CompositeDist::CompositeDist (std::tuple< Ts... > && *dist_tuple*) [inline], [explicit]

Construct from a rvalue tuple of subclasses of UnivariateDist's or MulitvariateDist's.

Definition at line 79 of file CompositeDist.h.

References make_component_dist_tuple().

Here is the call graph for this function:



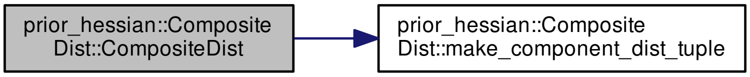
7.7.4.4 template<class... Ts> prior_hessian::CompositeDist::CompositeDist (const std::tuple< Ts... > & *dist_tuple*) [inline], [explicit]

Construct from a lvalue tuple of subclasses of UnivariateDist's or MulitvariateDist's.

Definition at line 85 of file CompositeDist.h.

References make_component_dist_tuple().

Here is the call graph for this function:



7.7.4.5 prior_hessian::CompositeDist::CompositeDist (const **CompositeDist** & *o*)

Definition at line 17 of file CompositeDist.cpp.

7.7.4.6 prior_hessian::CompositeDist::CompositeDist (**CompositeDist** && *o*)

Definition at line 28 of file CompositeDist.cpp.

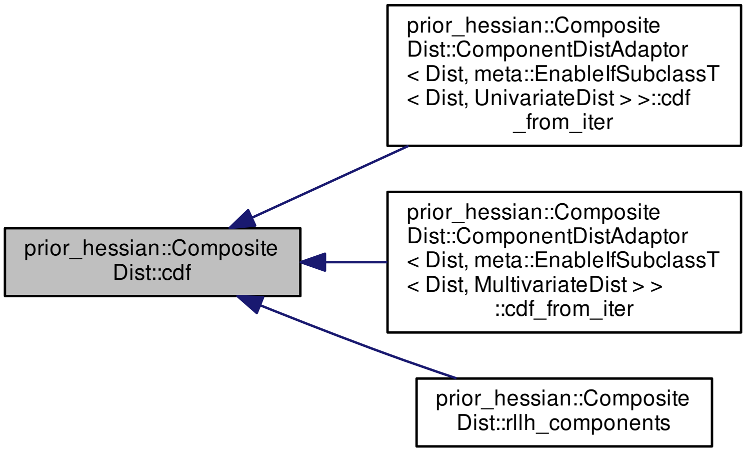
7.7.5 Member Function Documentation

7.7.5.1 double prior_hessian::CompositeDist::cdf (const VecT & *u*) const [inline]

Definition at line 186 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::cdf_from_iter(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIf↩SubclassT< Dist, MultivariateDist > >::cdf_from_iter(), and rllh_components().

Here is the caller graph for this function:

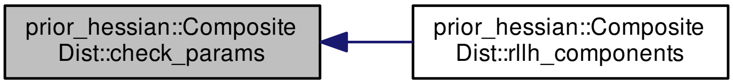

prior_hessian::Composite
Dist::cdf
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::cdf
_from_iter
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::cdf_from_iter
prior_hessian::Composite
Dist::rllh_components

7.7.5.2 bool prior_hessian::CompositeDist::check_params (const VecT & *new_params*) const [inline]

Definition at line 163 of file CompositeDist.h.

Referenced by rllh_components().

Here is the caller graph for this function:

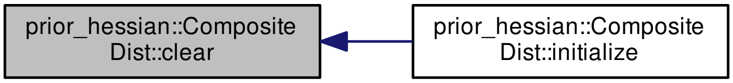


7.7.5.3 void prior_hessian::CompositeDist::clear ( )

Definition at line 38 of file CompositeDist.cpp.

Referenced by initialize().

Here is the caller graph for this function:

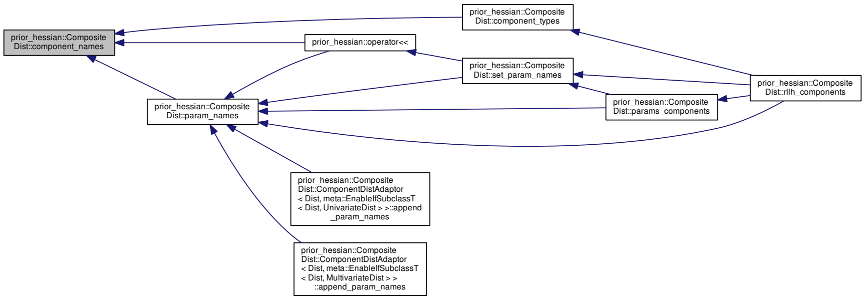

prior_hessian::Composite Dist::clear
prior_hessian::Composite Dist::initialize

7.7.5.4 const StringVecT & prior_hessian::CompositeDist::component_names ( ) const

Definition at line 108 of file CompositeDist.cpp.

Referenced by component_types(), prior_hessian::operator<<(), and param_names().

Here is the caller graph for this function:


prior_hessian::Composite Dist::component_names
prior_hessian::Composite Dist::component_types
prior_hessian::operator<<
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append _param_names
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_param_names

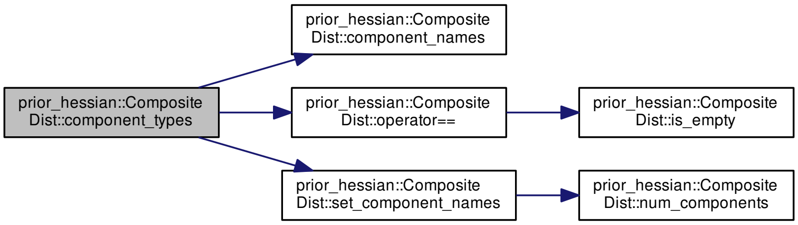
7.7.5.5 TypeInfoVecT prior_hessian::CompositeDist::component_types ( ) const [inline]

Definition at line 127 of file CompositeDist.h.

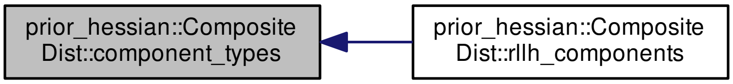
References component_names(), operator==(), and set_component_names().

Referenced by rllh_components().

Here is the call graph for this function:


prior_hessian::Composite Dist::component_types
prior_hessian::Composite Dist::component_names
prior_hessian::Composite Dist::operator==
prior_hessian::Composite Dist::is_empty
prior_hessian::Composite Dist::set_component_names
prior_hessian::Composite Dist::num_components

Here is the caller graph for this function:

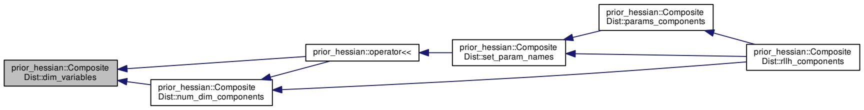

prior_hessian::Composite Dist::component_types
prior_hessian::Composite Dist::rllh_components

7.7.5.6 const StringVecT & prior_hessian::CompositeDist::dim_variables ( ) const

Definition at line 114 of file CompositeDist.cpp.

Referenced by num_dim_components(), and prior_hessian::operator<<().

Here is the caller graph for this function:

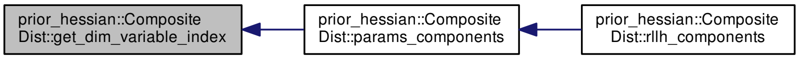

prior_hessian::Composite Dist::dim_variables
prior_hessian::operator<<
prior_hessian::Composite Dist::num_dim_components
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.7 IdxT prior_hessian::CompositeDist::get_dim_variable_index (const std::string & *name*) const

Definition at line 175 of file CompositeDist.cpp.

Referenced by params_components().

Here is the caller graph for this function:

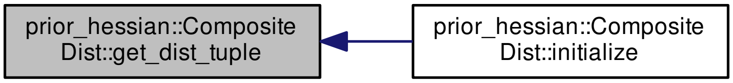

prior_hessian::Composite Dist::get_dim_variable_index
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.8 template< class... Ts > const std::tuple< Ts... > & prior_hessian::CompositeDist::get_dist_tuple ( ) const

Definition at line 930 of file CompositeDist.h.

Referenced by initialize().

Here is the caller graph for this function:

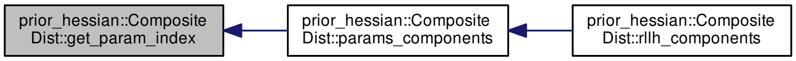

prior_hessian::Composite Dist::get_dist_tuple
prior_hessian::Composite Dist::initialize

7.7.5.9 IdxT prior_hessian::CompositeDist::get_param_index (const std::string & *name*) const

Definition at line 221 of file CompositeDist.cpp.

Referenced by params_components().

Here is the caller graph for this function:


prior_hessian::Composite Dist::get_param_index
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

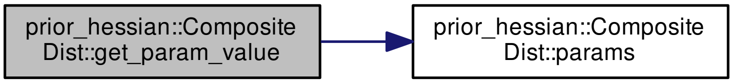
7.7.5.10 double prior_hessian::CompositeDist::get_param_value (const std::string & *name*) const

Definition at line 209 of file CompositeDist.cpp.

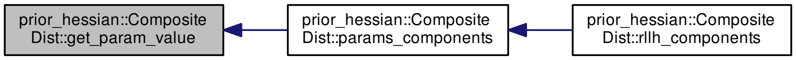
References params().

Referenced by params_components().

Here is the call graph for this function:



Here is the caller graph for this function:

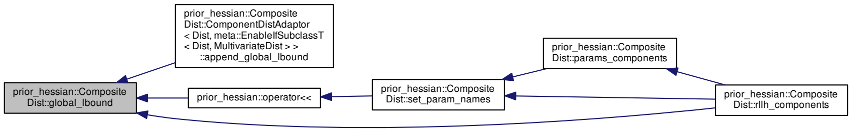


7.7.5.11 VecT prior_hessian::CompositeDist::global_lbound ( ) const [inline]

Definition at line 145 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_global_lbound(), prior_hessian::operator<<(), and rllh_components().

Here is the caller graph for this function:

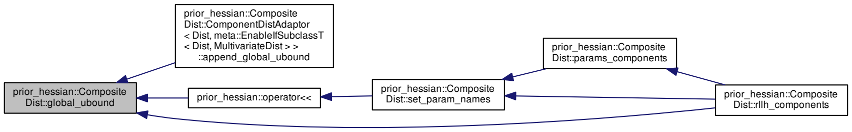


7.7.5.12 VecT prior_hessian::CompositeDist::global_ubound ( ) const [inline]

Definition at line 146 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_global_ubound(), prior_hessian::operator<<(), and rllh_components().

Here is the caller graph for this function:



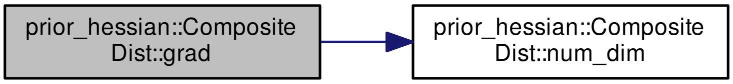
7.7.5.13 VecT prior_hessian::CompositeDist::grad (const VecT & *u*) const [inline]

Definition at line 190 of file CompositeDist.h.

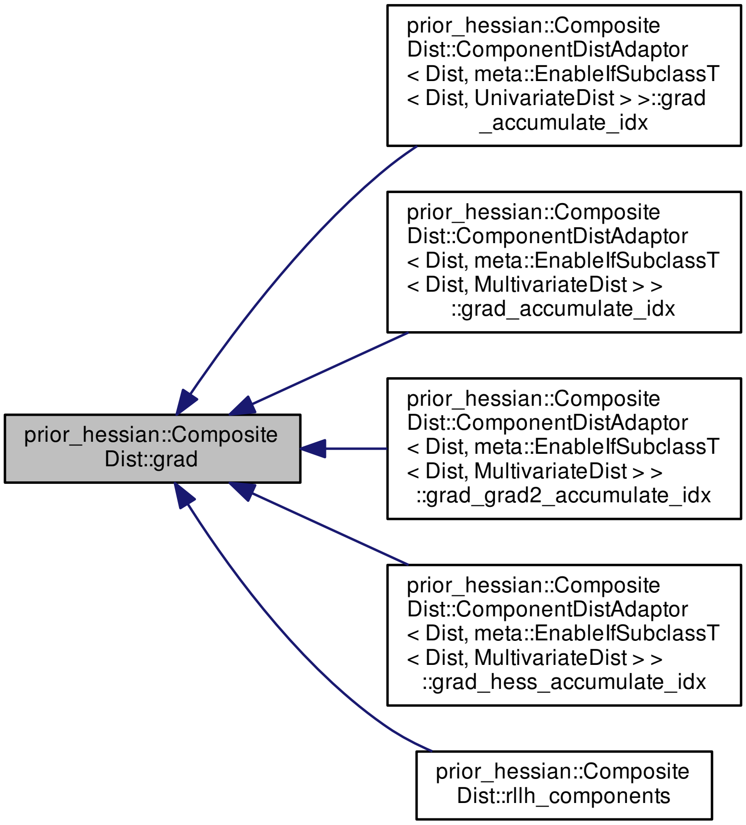
References num_dim().

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::grad_accumulate_idx(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad_accumulate_idx(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad_grad2_accumulate_idx(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad_hess_accumulate_idx(), and rllh_components().

Here is the call graph for this function:



Here is the caller graph for this function:


prior_hessian::Composite Dist::grad
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::grad _accumulate_idx
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_accumulate_idx
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_grad2_accumulate_idx
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_hess_accumulate_idx
prior_hessian::Composite Dist::rllh_components

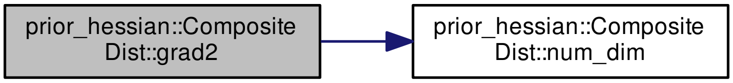
7.7.5.14 VecT prior_hessian::CompositeDist::grad2 (const VecT & *u*) const [inline]

Definition at line 197 of file CompositeDist.h.

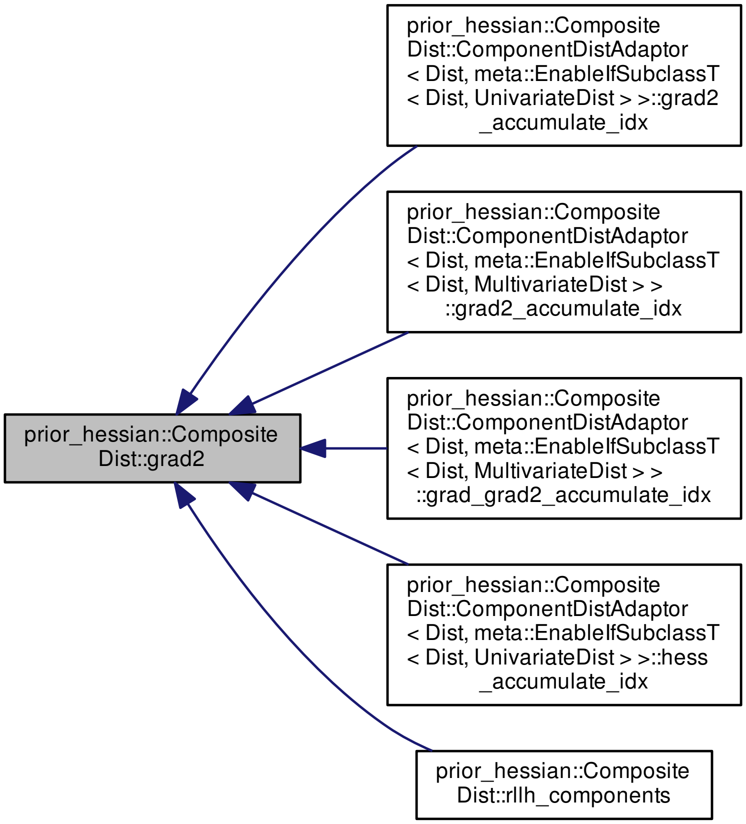
References num_dim().

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::grad2_accumulate_idx(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad2_accumulate_idx(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad_grad2_accumulate_idx(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::hess_accumulate_idx(), and rllh_components().

Here is the call graph for this function:



Here is the caller graph for this function:

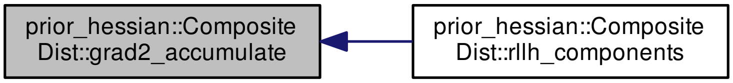

prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::grad2
_accumulate_idx
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::grad2_accumulate_idx
prior_hessian::Composite
Dist::grad2
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::grad_grad2_accumulate_idx
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::hess
_accumulate_idx
prior_hessian::Composite
Dist::rllh_components

7.7.5.15 void prior_hessian::CompositeDist::grad2_accumulate (const VecT & *theta*, VecT & *grad2*) const [inline]

Definition at line 219 of file CompositeDist.h.

Referenced by rllh_components().

Here is the caller graph for this function:

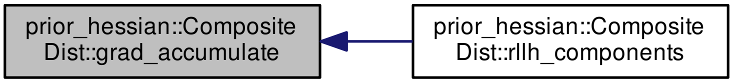

prior_hessian::Composite Dist::grad2_accumulate
prior_hessian::Composite Dist::rllh_components

7.7.5.16 void prior_hessian::CompositeDist::grad_accumulate (const VecT & *theta,* VecT & *grad*) const [inline]

Definition at line 218 of file CompositeDist.h.

Referenced by rllh_components().

Here is the caller graph for this function:

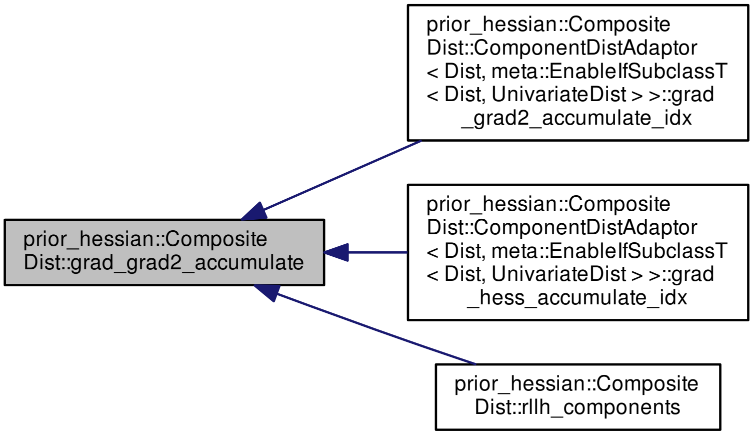

prior_hessian::Composite Dist::grad_accumulate
prior_hessian::Composite Dist::rllh_components

7.7.5.17 void prior_hessian::CompositeDist::grad_grad2_accumulate (const VecT & *theta,* VecT & *grad,* VecT & *grad2*) const [inline]

Definition at line 221 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::grad_grad2_accumulate_idx(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::grad_hess_accumulate_idx(), and rllh_components().

Here is the caller graph for this function:

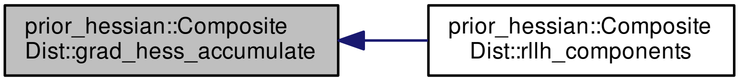

prior_hessian::Composite
Dist::grad_grad2_accumulate
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::grad
_grad2_accumulate_idx
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::grad
_hess_accumulate_idx
prior_hessian::Composite
Dist::rllh_components

7.7.5.18 void prior_hessian::CompositeDist::grad_hess_accumulate (const VecT & *theta*, VecT & *grad*, MatT & *hess*) const [inline]

Definition at line 224 of file CompositeDist.h.

Referenced by rllh_components().

Here is the caller graph for this function:

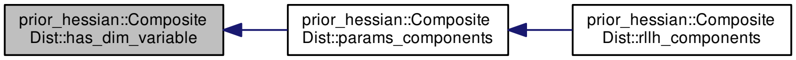


7.7.5.19 bool prior_hessian::CompositeDist::has_dim_variable (const std::string & *name*) const

Definition at line 169 of file CompositeDist.cpp.

Referenced by params_components().

Here is the caller graph for this function:

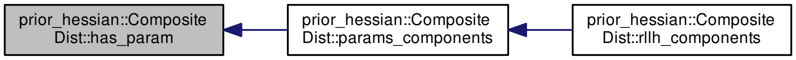

prior_hessian::Composite Dist::has_dim_variable
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.20 bool prior_hessian::CompositeDist::has_param (const std::string & *name*) const

Definition at line 203 of file CompositeDist.cpp.

Referenced by params_components().

Here is the caller graph for this function:


prior_hessian::Composite Dist::has_param
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

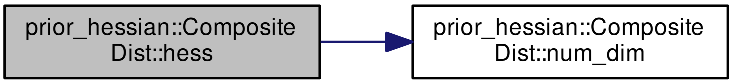
7.7.5.21 MatT prior_hessian::CompositeDist::hess (const VecT & *u*) const [inline]

Definition at line 205 of file CompositeDist.h.

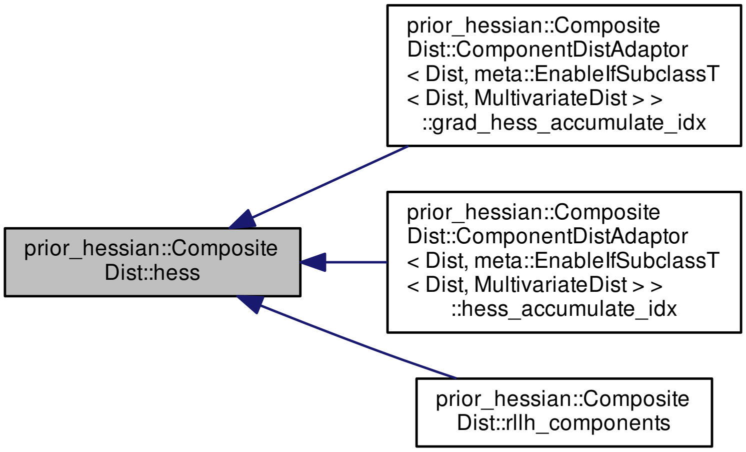
References num_dim().

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::grad_hess_accumulate_idx(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::hess_accumulate_idx(), and rllh_components().

Here is the call graph for this function:


prior_hessian::Composite Dist::hess
prior_hessian::Composite Dist::num_dim

Here is the caller graph for this function:

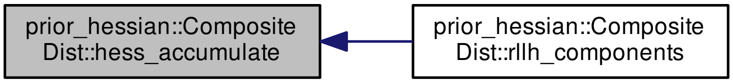

prior_hessian::Composite
Dist::hess
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::grad_hess_accumulate_idx
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::hess_accumulate_idx
prior_hessian::Composite
Dist::rllh_components

7.7.5.22 void prior_hessian::CompositeDist::hess_accumulate (const VecT & *theta,* MatT & *hess*) const [inline]

Definition at line 220 of file CompositeDist.h.

Referenced by rllh_components().

Here is the caller graph for this function:

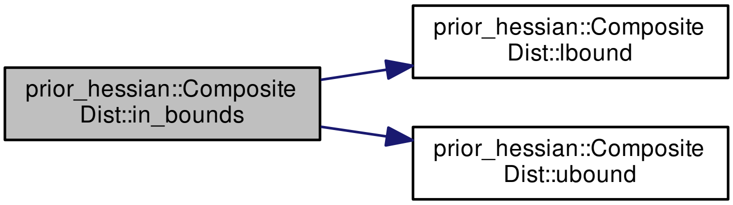


7.7.5.23 bool prior_hessian::CompositeDist::in_bounds (const VecT & *u*) const [inline]

Definition at line 147 of file CompositeDist.h.

References lbound(), and ubound().

Here is the call graph for this function:

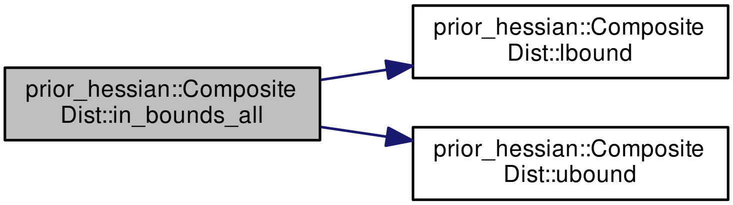


7.7.5.24 bool prior_hessian::CompositeDist::in_bounds_all (const MatT & *u*) const [inline]

Definition at line 149 of file CompositeDist.h.

References lbound(), and ubound().

Here is the call graph for this function:

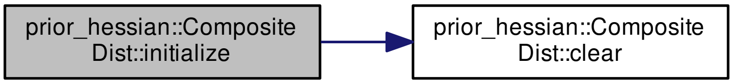


7.7.5.25 void prior_hessian::CompositeDist::initialize ( ) [inline]

Definition at line 89 of file CompositeDist.h.

References clear().

Here is the call graph for this function:



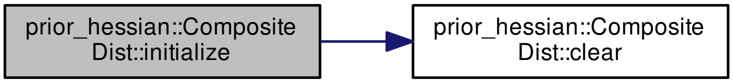
7.7.5.26 void prior_hessian::CompositeDist::initialize (const std::tuple<> &) [inline]

Initialize to the empty state.

Definition at line 90 of file CompositeDist.h.

References clear().

Here is the call graph for this function:



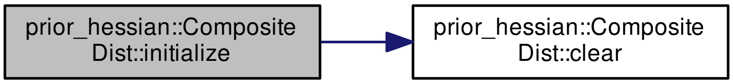
7.7.5.27 void prior_hessian::CompositeDist::initialize (std::tuple<> &&) [inline]

Initialize of an empty lvalue tuple produces the empty state.

Definition at line 91 of file CompositeDist.h.

References clear().

Here is the call graph for this function:



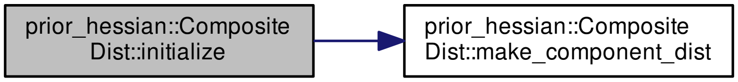
7.7.5.28 template< class... Ts, typename = meta::EnableIfAllAreNotTupleT< Ts...> > void prior_hessian::CompositeDist::initialize (Ts &&... *dists*) [inline]

Initialize of an empty rvalue tuple produces the empty state.

Definition at line 93 of file CompositeDist.h.

References make_component_dist().

Here is the call graph for this function:

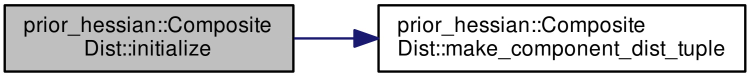

prior_hessian::Composite Dist::initialize
prior_hessian::Composite Dist::make_component_dist

7.7.5.29 template< class... Ts, typename = meta::EnableIfAllAreNotTupleT< Ts...> > void prior_hessian::CompositeDist::initialize (std::tuple< Ts... > && *dist_tuple*) [inline]

Definition at line 100 of file CompositeDist.h.

References make_component_dist_tuple().

Here is the call graph for this function:

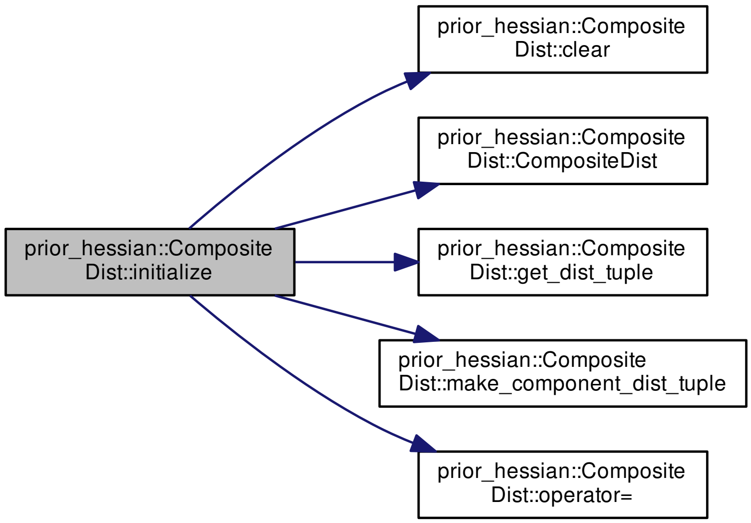

prior_hessian::Composite Dist::initialize
prior_hessian::Composite Dist::make_component_dist_tuple

7.7.5.30 template< class... Ts, typename = meta::EnableIfNonEmpty< Ts...> > void prior_hessian::CompositeDist::initialize (const std::tuple< Ts... > & *dist_tuple*) [inline]

Definition at line 107 of file CompositeDist.h.

References clear(), CompositeDist(), get_dist_tuple(), make_component_dist_tuple(), and operator=().

Here is the call graph for this function:

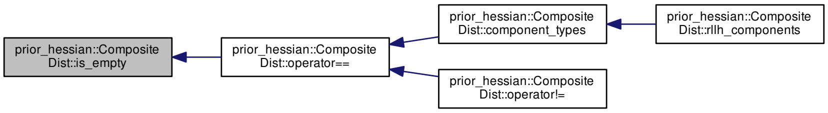

prior_hessian::Composite Dist::initialize
prior_hessian::Composite Dist::clear
prior_hessian::Composite Dist::CompositeDist
prior_hessian::Composite Dist::get_dist_tuple
prior_hessian::Composite Dist::make_component_dist_tuple
prior_hessian::Composite Dist::operator=

7.7.5.31 bool prior_hessian::CompositeDist::is_empty ( ) const [inline]

Definition at line 124 of file CompositeDist.h.

Referenced by operator==().

Here is the caller graph for this function:

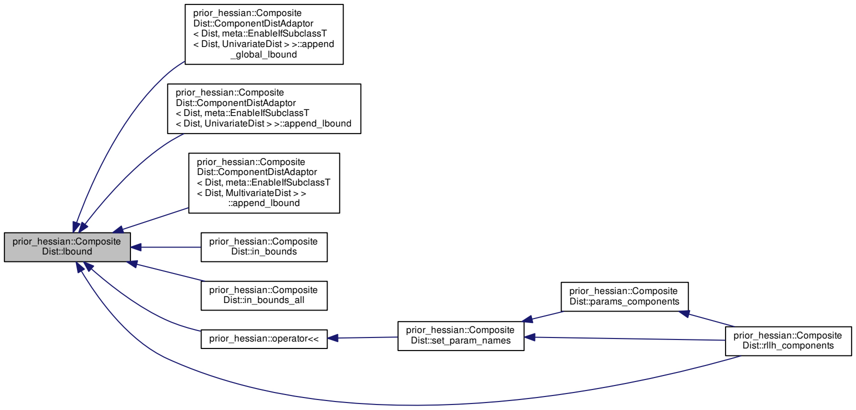

prior_hessian::Composite Dist::is_empty
prior_hessian::Composite Dist::operator==
prior_hessian::Composite Dist::component_types
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::operator!=

7.7.5.32 VecT prior_hessian::CompositeDist::lbound ( ) const [inline]

Definition at line 143 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_global_lbound(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta↩::EnableIfSubclassT< Dist, UnivariateDist > >::append_lbound(), prior_hessian::CompositeDist::ComponentDist↩Adaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_lbound(), in_bounds(), in_bounds_all(), prior_hessian::operator<<(), and rllh_components().

Here is the caller graph for this function:

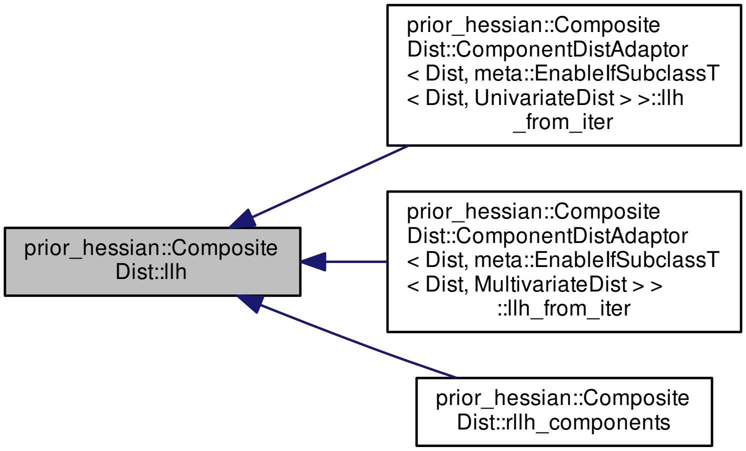

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append _global_lbound
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append_lbound
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_lbound
prior_hessian::Composite Dist::lbound
prior_hessian::Composite Dist::in_bounds
prior_hessian::Composite Dist::in_bounds_all
prior_hessian::operator<<
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.33 double prior_hessian::CompositeDist::llh (const VecT & *u*) const [inline]

Definition at line 188 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::llh_from_iter(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIf↩ SubclassT< Dist, MultivariateDist > >::llh_from_iter(), and rllh_components().

Here is the caller graph for this function:

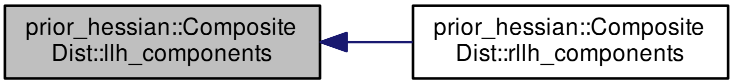

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::llh _from_iter
prior_hessian::Composite Dist::llh
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::llh_from_iter
prior_hessian::Composite Dist::rllh_components

7.7.5.34 VecT prior_hessian::CompositeDist::llh_components (const VecT & *u*) const [inline]

Definition at line 249 of file CompositeDist.h.

Referenced by rllh_components().

Here is the caller graph for this function:

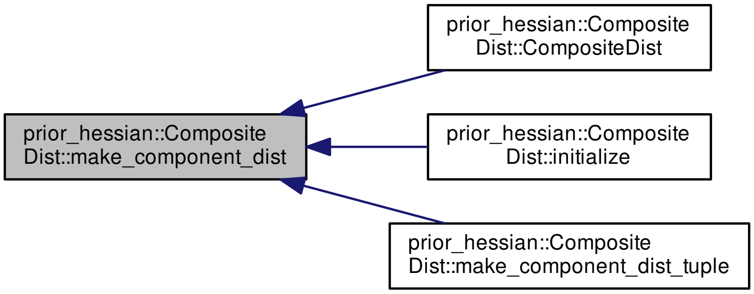

prior_hessian::Composite Dist::llh_components
prior_hessian::Composite Dist::rllh_components

7.7.5.35 template<class DistT > static meta::ReturnIfInstantiatedFromT<DistT,DistT,ComponentDistAdaptor> prior_hessian::CompositeDist::make_component_dist (DistT && *dist*) [inline], [static]

Definition at line 851 of file CompositeDist.h.

Referenced by CompositeDist(), initialize(), and make_component_dist_tuple().

Here is the caller graph for this function:

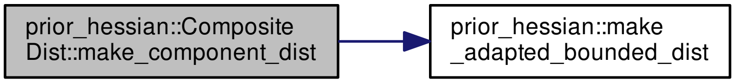

prior_hessian::Composite Dist::make_component_dist
prior_hessian::Composite Dist::CompositeDist
prior_hessian::Composite Dist::initialize
prior_hessian::Composite Dist::make_component_dist_tuple

7.7.5.36 template<class DistT > static meta::ReturnIfNotInstantiatedFromT<Component↩DistT<DistT>,DistT,ComponentDistAdaptor> prior_hessian::CompositeDist::make_component_dist (DistT && *dist*) [inline], [static]

Definition at line 857 of file CompositeDist.h.

References prior_hessian::make_adapted_bounded_dist().

Here is the call graph for this function:

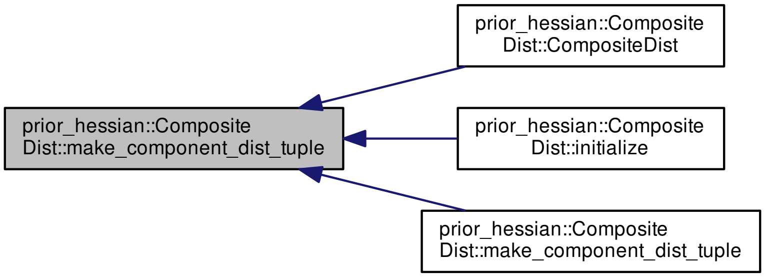

prior_hessian::Composite Dist::make_component_dist
prior_hessian::make _adapted_bounded_dist

7.7.5.37 template<class... Ts> static std::tuple<ComponentDistT<Ts>...> prior_hessian::↩CompositeDist::make_component_dist_tuple (const std::tuple< Ts... > & *dists*) [inline], [static]

Definition at line 867 of file CompositeDist.h.

Referenced by CompositeDist(), initialize(), and make_component_dist_tuple().

Here is the caller graph for this function:

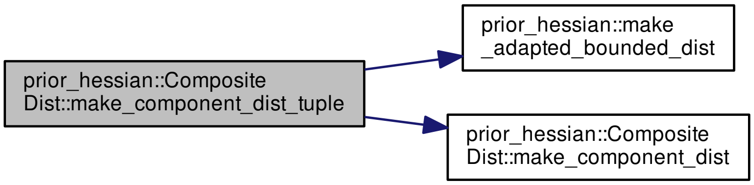

prior_hessian::Composite Dist::make_component_dist_tuple
prior_hessian::Composite Dist::CompositeDist
prior_hessian::Composite Dist::initialize
prior_hessian::Composite Dist::make_component_dist_tuple

7.7.5.38 template<class... Ts, std::size_t... I> static std::tuple<ComponentDistT<Ts>...> prior_hessian::Composite↩ Dist::make_component_dist_tuple (const std::tuple< Ts... > & *dists*, std::index_sequence< I... >) [inline], [static]

Definition at line 874 of file CompositeDist.h.

References prior_hessian::make_adapted_bounded_dist(), and make_component_dist().

Here is the call graph for this function:

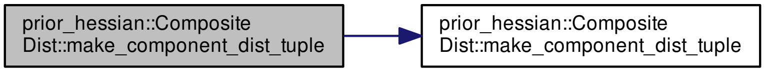


7.7.5.39 template<class... Ts> static std::tuple<ComponentDistT<Ts>...> prior_hessian::↩ CompositeDist::make_component_dist_tuple (std::tuple< Ts... > && *dists*) [inline], [static]

Definition at line 880 of file CompositeDist.h.

References make_component_dist_tuple().

Here is the call graph for this function:

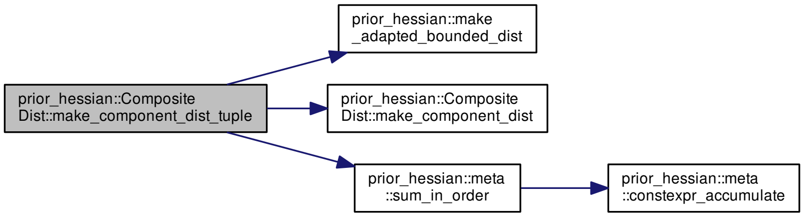

prior_hessian::Composite
Dist::make_component_dist_tuple
prior_hessian::Composite
Dist::make_component_dist_tuple

7.7.5.40 template<class... Ts, std::size_t... I> static std::tuple<ComponentDistT<Ts>...> prior_hessian::Composite↩ Dist::make_component_dist_tuple (std::tuple< Ts... > && *dists*, std::index_sequence< I... >) [inline], [static]

Definition at line 887 of file CompositeDist.h.

References prior_hessian::make_adapted_bounded_dist(), make_component_dist(), and prior_hessian::meta::sum_↩ in_order().

Here is the call graph for this function:

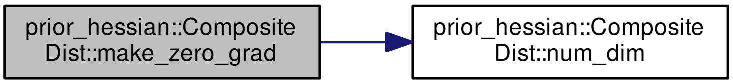

prior_hessian::Composite Dist::make_component_dist_tuple
prior_hessian::make _adapted_bounded_dist
prior_hessian::Composite Dist::make_component_dist
prior_hessian::meta ::sum_in_order
prior_hessian::meta ::constexpr_accumulate

7.7.5.41 VecT prior_hessian::CompositeDist::make_zero_grad ( ) const [inline]

Definition at line 226 of file CompositeDist.h.

References num_dim().

Here is the call graph for this function:

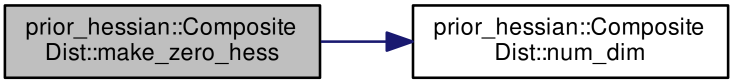

prior_hessian::Composite Dist::make_zero_grad
prior_hessian::Composite Dist::num_dim

7.7.5.42 MatT prior_hessian::CompositeDist::make_zero_hess ( ) const [inline]

Definition at line 227 of file CompositeDist.h.

References num_dim().

Here is the call graph for this function:

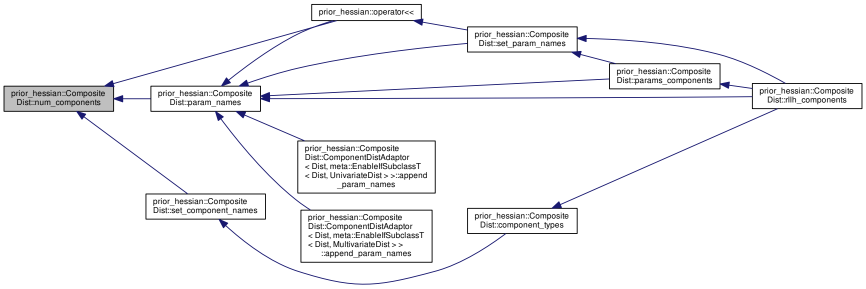

prior_hessian::Composite Dist::make_zero_hess
prior_hessian::Composite Dist::num_dim

7.7.5.43 IdxT prior_hessian::CompositeDist::num_components ( ) const [inline]

Definition at line 126 of file CompositeDist.h.

Referenced by prior_hessian::operator<<(), param_names(), and set_component_names().

Here is the caller graph for this function:

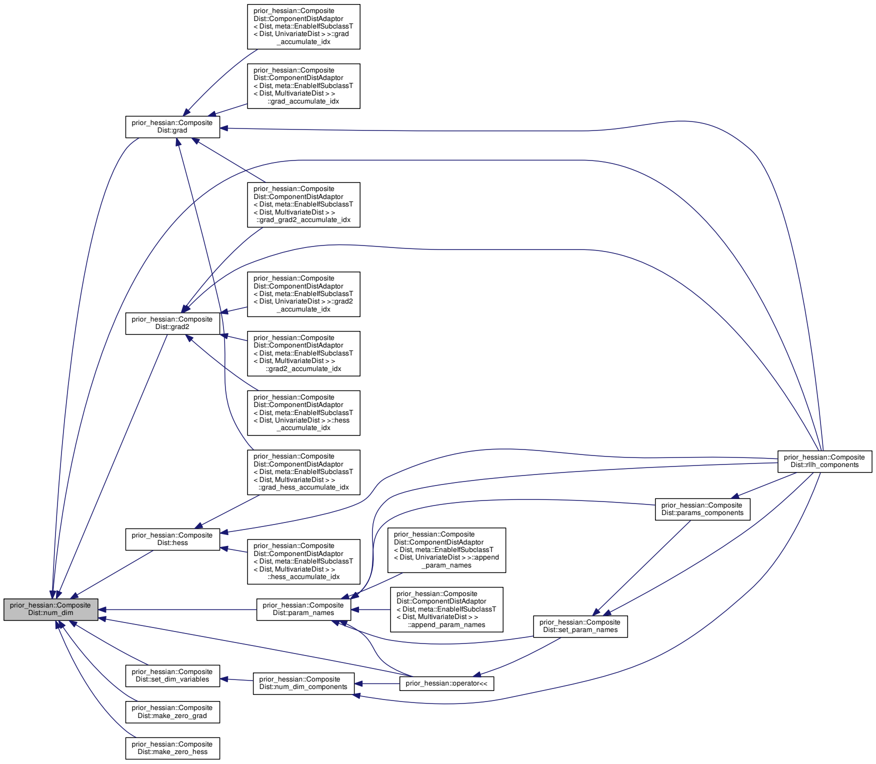

prior_hessian::operator<<
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::num_components
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append _param_names
prior_hessian::Composite Dist::set_component_names
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_param_names
prior_hessian::Composite Dist::component_types

7.7.5.44 IdxT prior_hessian::CompositeDist::num_dim ( ) const [inline]

Definition at line 136 of file CompositeDist.h.

Referenced by grad(), grad2(), hess(), make_zero_grad(), make_zero_hess(), prior_hessian::operator<<(), param_names(), rllh_components(), and set_dim_variables().

Here is the caller graph for this function:


prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::grad _accumulate_idx
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_accumulate_idx
prior_hessian::Composite Dist::grad
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_grad2_accumulate_idx
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::grad2 _accumulate_idx
prior_hessian::Composite Dist::grad2
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad2_accumulate_idx
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::hess _accumulate_idx
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::grad_hess_accumulate_idx
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::hess
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::hess_accumulate_idx
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append _param_names
prior_hessian::Composite Dist::num_dim
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_param_names
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::set_dim_variables
prior_hessian::Composite Dist::num_dim_components
prior_hessian::operator<<
prior_hessian::Composite Dist::make_zero_grad
prior_hessian::Composite Dist::make_zero_hess

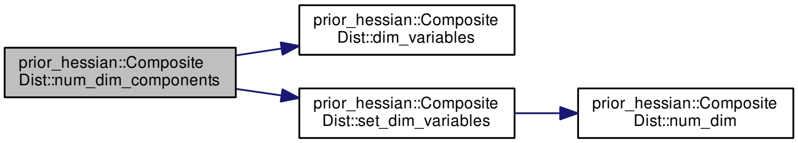
7.7.5.45 UVecT prior_hessian::CompositeDist::num_dim_components ( ) const [inline]

Definition at line 137 of file CompositeDist.h.

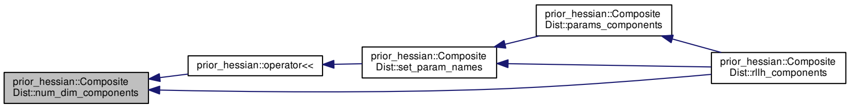
References dim_variables(), and set_dim_variables().

Referenced by prior_hessian::operator<<(), and rllh_components().

Here is the call graph for this function:



Here is the caller graph for this function:

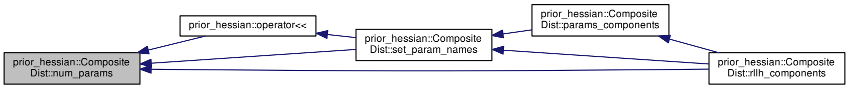


7.7.5.46 IdxT prior_hessian::CompositeDist::num_params ( ) const [inline]

Definition at line 159 of file CompositeDist.h.

Referenced by prior_hessian::operator<<(), rllh_components(), and set_param_names().

Here is the caller graph for this function:

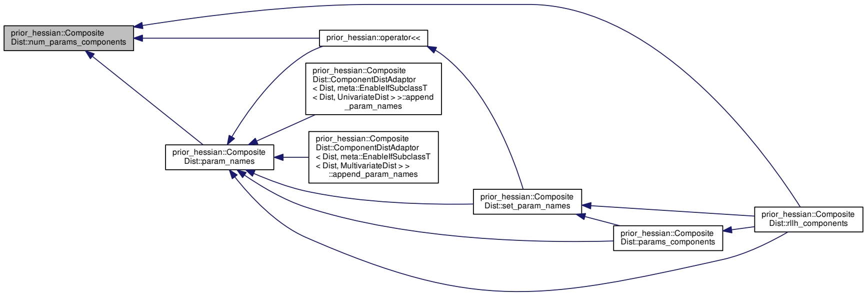


7.7.5.47 UVecT prior_hessian::CompositeDist::num_params_components ( ) const [inline]

Definition at line 160 of file CompositeDist.h.

Referenced by prior_hessian::operator<<(), param_names(), and rllh_components().

Here is the caller graph for this function:


prior_hessian::Composite Dist::num_params_components
prior_hessian::operator<<
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append _param_names
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_param_names
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::params_components

7.7.5.48 prior_hessian::CompositeDist::operator bool ( ) const [inline]

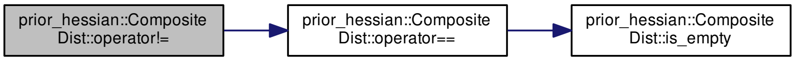
Definition at line 125 of file CompositeDist.h.

7.7.5.49 bool prior_hessian::CompositeDist::operator!= (const CompositeDist & *o*) const [inline]

Definition at line 133 of file CompositeDist.h.

References operator==().

Here is the call graph for this function:

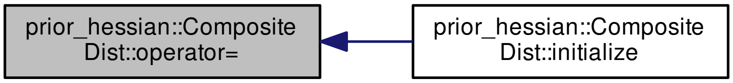

prior_hessian::Composite Dist::operator!=
prior_hessian::Composite Dist::operator==
prior_hessian::Composite Dist::is_empty

7.7.5.50 CompositeDist & prior_hessian::CompositeDist::operator= (const CompositeDist & *o*)

Definition at line 44 of file CompositeDist.cpp.

Referenced by initialize().

Here is the caller graph for this function:


prior_hessian::Composite Dist::operator=
prior_hessian::Composite Dist::initialize

7.7.5.51 CompositeDist & prior_hessian::CompositeDist::operator= (CompositeDist && *o*)

Definition at line 57 of file CompositeDist.cpp.

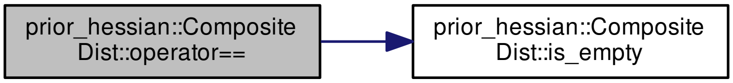
7.7.5.52 bool prior_hessian::CompositeDist::operator== (const CompositeDist & *o*) const

Definition at line 70 of file CompositeDist.cpp.

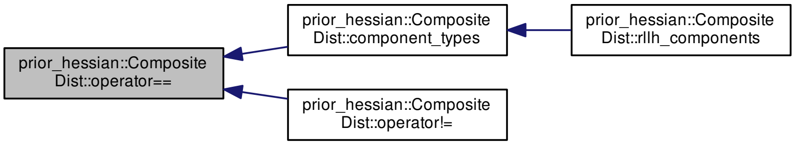
References is_empty().

Referenced by component_types(), and operator!=().

Here is the call graph for this function:


prior_hessian::Composite Dist::operator==
prior_hessian::Composite Dist::is_empty

Here is the caller graph for this function:


prior_hessian::Composite Dist::operator==
prior_hessian::Composite Dist::component_types
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::operator!=

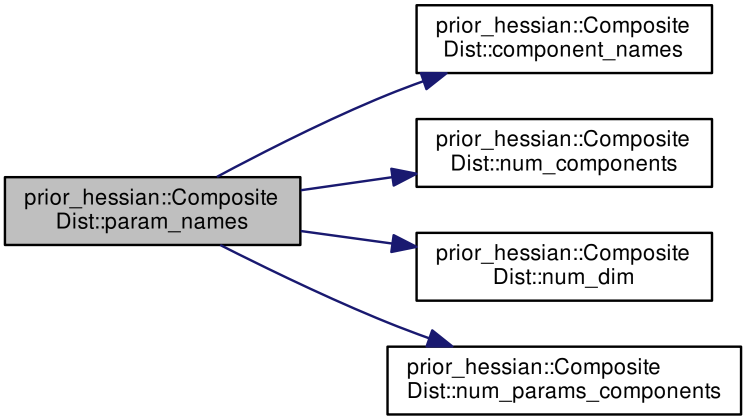
7.7.5.53 const StringVecT & prior_hessian::CompositeDist::param_names ( ) const

Definition at line 120 of file CompositeDist.cpp.

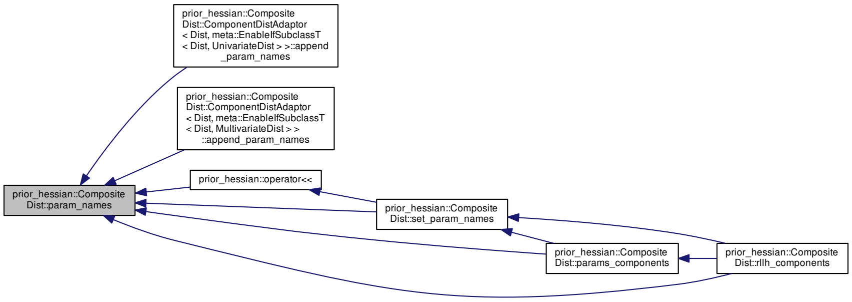
References component_names(), num_components(), num_dim(), and num_params_components().

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_param_names(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta↩ ::EnableIfSubclassT< Dist, MultivariateDist > >::append_param_names(), prior_hessian::operator<<(), params_↩ components(), rllh_components(), and set_param_names().

Here is the call graph for this function:


prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::component_names
prior_hessian::Composite Dist::num_components
prior_hessian::Composite Dist::num_dim
prior_hessian::Composite Dist::num_params_components

Here is the caller graph for this function:

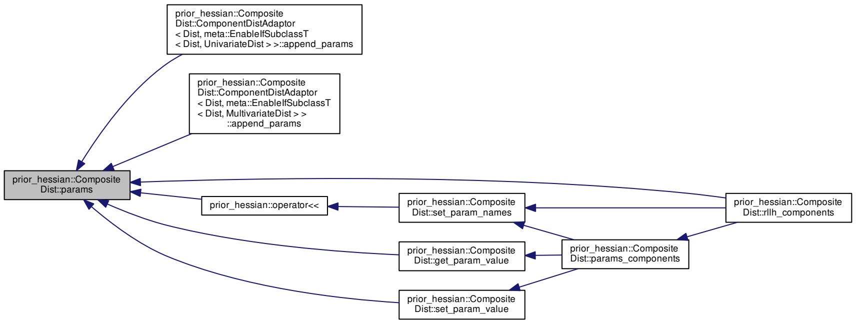

prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append _param_names
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_param_names
prior_hessian::operator<<
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.54 VecT prior_hessian::CompositeDist::params ( ) const [inline]

Definition at line 161 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_params(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_params(), get_param_value(), prior_hessian::operator<<(), rllh_components(), and set_param_value().

Here is the caller graph for this function:


prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::append_params
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::append_params
prior_hessian::Composite Dist::params
prior_hessian::operator<<
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::get_param_value
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::set_param_value

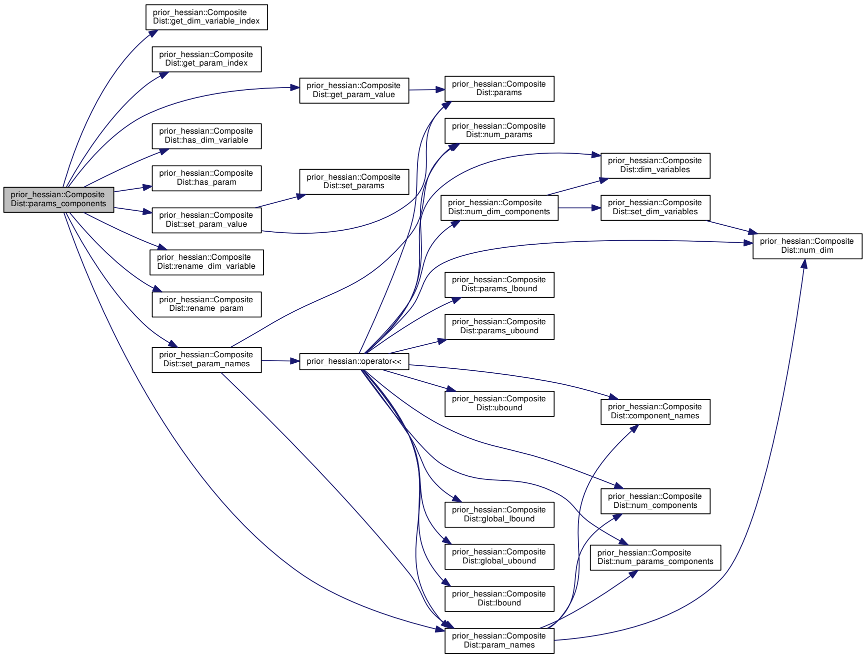
7.7.5.55 std::vector< VecT > prior_hessian::CompositeDist::params_components ( ) const [inline]

Definition at line 166 of file CompositeDist.h.

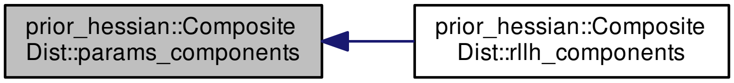
References get_dim_variable_index(), get_param_index(), get_param_value(), has_dim_variable(), has_param(), param_names(), rename_dim_variable(), rename_param(), set_param_names(), and set_param_value().

Referenced by rllh_components().

Here is the call graph for this function:


prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::get_dim_variable_index
prior_hessian::Composite Dist::get_param_index
prior_hessian::Composite Dist::get_param_value
prior_hessian::Composite Dist::params
prior_hessian::Composite Dist::num_params
prior_hessian::Composite Dist::has_dim_variable
prior_hessian::Composite Dist::has_param
prior_hessian::Composite Dist::set_params
prior_hessian::Composite Dist::dim_variables
prior_hessian::Composite Dist::set_param_value
prior_hessian::Composite Dist::num_dim_components
prior_hessian::Composite Dist::set_dim_variables
prior_hessian::Composite Dist::num_dim
prior_hessian::Composite Dist::rename_dim_variable
prior_hessian::Composite Dist::rename_param
prior_hessian::Composite Dist::params_lbound
prior_hessian::Composite Dist::params_ubound
prior_hessian::Composite Dist::set_param_names
prior_hessian::operator<<
prior_hessian::Composite Dist::ubound
prior_hessian::Composite Dist::component_names
prior_hessian::Composite Dist::num_components
prior_hessian::Composite Dist::global_lbound
prior_hessian::Composite Dist::num_params_components
prior_hessian::Composite Dist::global_ubound
prior_hessian::Composite Dist::lbound
prior_hessian::Composite Dist::param_names

Here is the caller graph for this function:

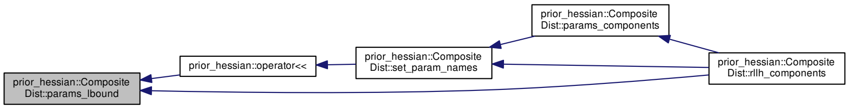

prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.56 VecT prior_hessian::CompositeDist::params_lbound ( ) const [inline]

Definition at line 164 of file CompositeDist.h.

Referenced by prior_hessian::operator<<(), and rllh_components().

Here is the caller graph for this function:

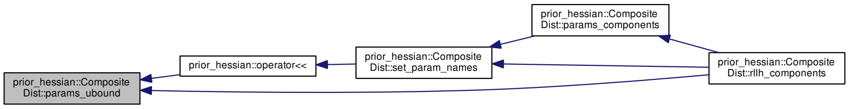

prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::params_lbound
prior_hessian::operator<<
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::rllh_components

7.7.5.57 VecT prior_hessian::CompositeDist::params_ubound ( ) const [inline]

Definition at line 165 of file CompositeDist.h.

Referenced by prior_hessian::operator<<(), and rllh_components().

Here is the caller graph for this function:

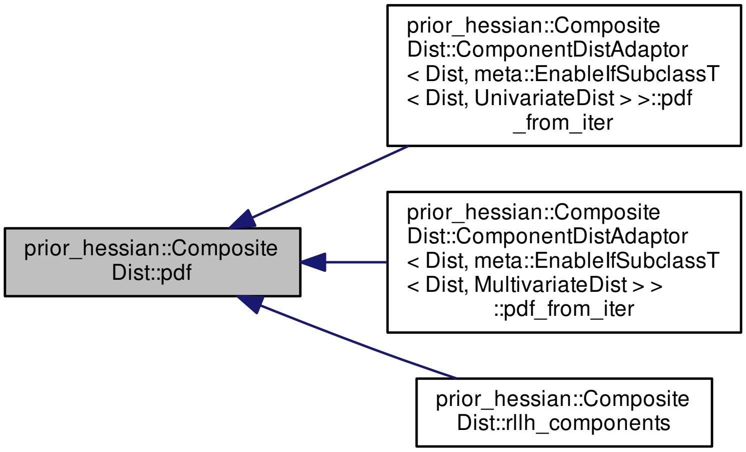

prior_hessian::Composite Dist::params_ubound
prior_hessian::operator<<
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.58 double prior_hessian::CompositeDist::pdf (const VecT & *u*) const [inline]

Definition at line 187 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::pdf_from_iter(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::pdf_from_iter(), and rllh_components().

Here is the caller graph for this function:

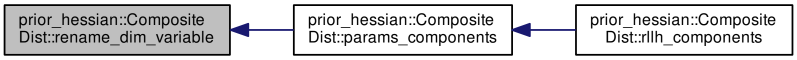

prior_hessian::Composite Dist::pdf
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::pdf _from_iter
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::pdf_from_iter
prior_hessian::Composite Dist::rllh_components

7.7.5.59 void prior_hessian::CompositeDist::rename_dim_variable (const std::string & *old_name,* std::string *new_name*)

Definition at line 187 of file CompositeDist.cpp.

Referenced by params_components().

Here is the caller graph for this function:

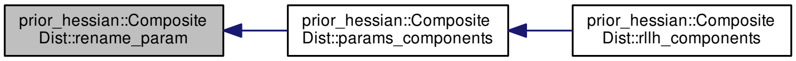


7.7.5.60 void prior_hessian::CompositeDist::rename_param (const std::string & *old_name,* std::string *new_name*)

Definition at line 247 of file CompositeDist.cpp.

Referenced by params_components().

Here is the caller graph for this function:

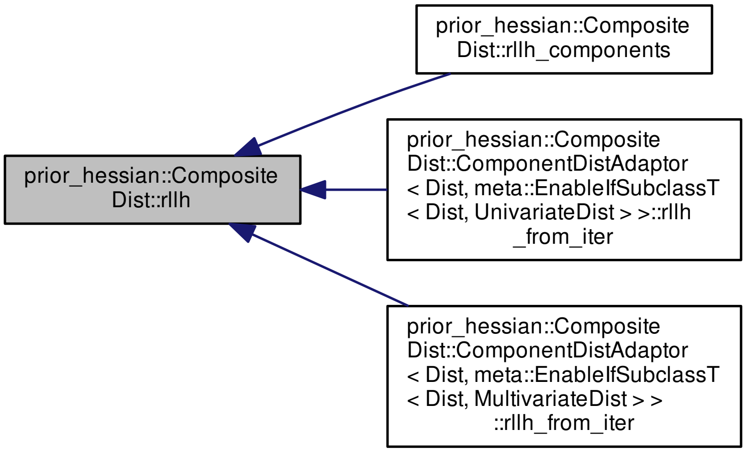


7.7.5.61 double prior_hessian::CompositeDist::rllh (const VecT & *u*) const [inline]

Definition at line 189 of file CompositeDist.h.

Referenced by rllh_components(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::rllh_from_iter(), and prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::rllh_from_iter().

Here is the caller graph for this function:

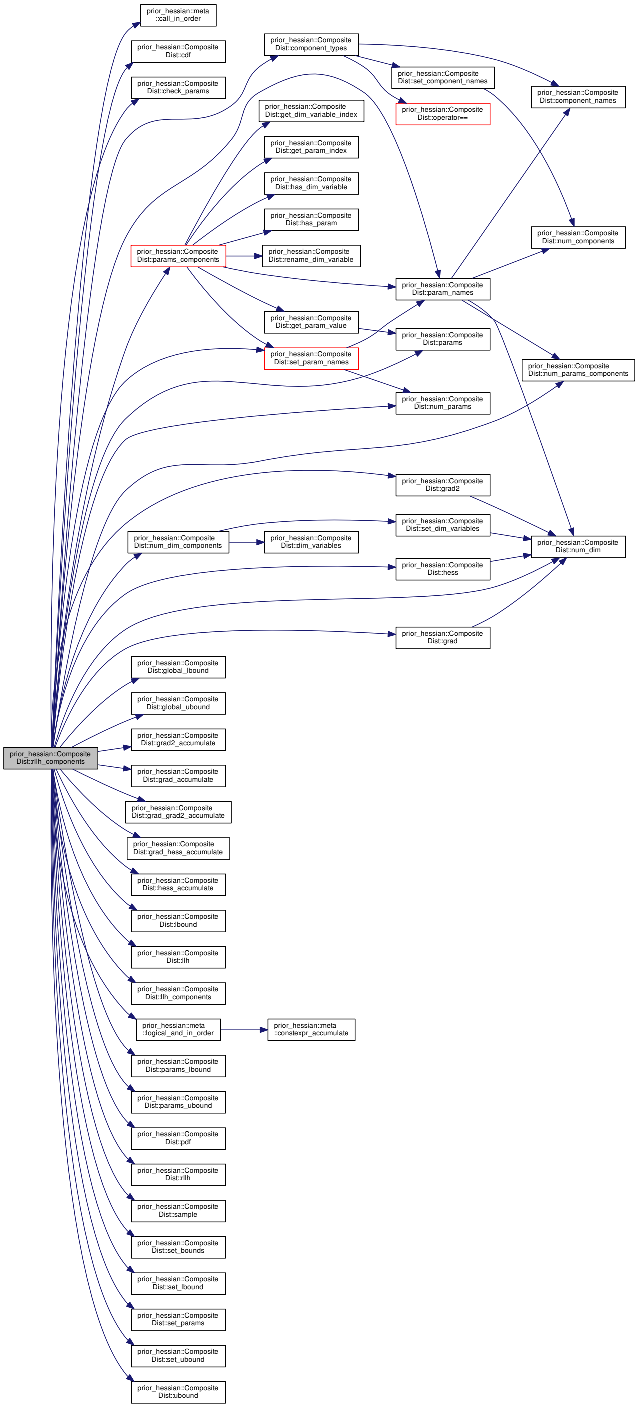

prior_hessian::Composite Dist::rllh
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, UnivariateDist > >::rllh _from_iter
prior_hessian::Composite Dist::ComponentDistAdaptor < Dist, meta::EnableIfSubclassT < Dist, MultivariateDist > > ::rllh_from_iter

7.7.5.62 VecT prior_hessian::CompositeDist::rllh_components (const VecT & *u*) const [inline]

Definition at line 250 of file CompositeDist.h.

References prior_hessian::meta::call_in_order(), cdf(), check_params(), component_types(), global_lbound(), global_ubound(), grad(), grad2(), grad2_accumulate(), grad_accumulate(), grad_grad2_accumulate(), grad_hess_accumulate(), hess(), hess_accumulate(), lbound(), llh(), llh_components(), prior_hessian::meta::logical_and_in_order(), num_dim(), num_dim_components(), num_params(), num_params_components(), param_names(), params(), params_components(), params_lbound(), params_ubound(), pdf(), rllh(), sample(), set_bounds(), set_lbound(), set_param_names(), set_params(), set_ubound(), and ubound().

Here is the call graph for this function:

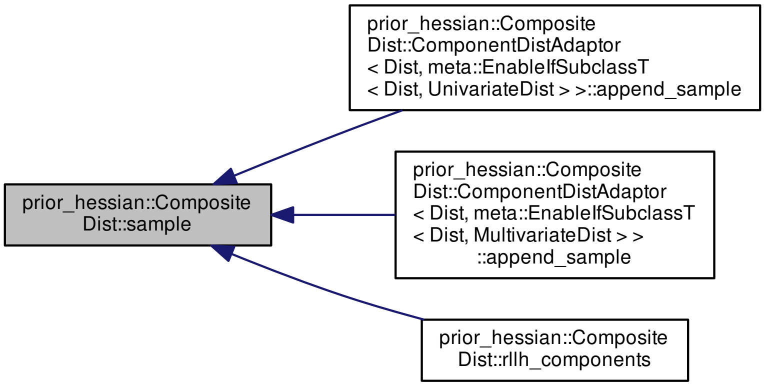

prior_hessian::meta ::call_in_order
prior_hessian::Composite Dist::cdf
prior_hessian::Composite Dist::check_params
prior_hessian::Composite Dist::component_types
prior_hessian::Composite Dist::set_component_names
prior_hessian::Composite Dist::component_names
prior_hessian::Composite Dist::get_dim_variable_index
prior_hessian::Composite Dist::operator==
prior_hessian::Composite Dist::get_param_index
prior_hessian::Composite Dist::has_dim_variable
prior_hessian::Composite Dist::has_param
prior_hessian::Composite Dist::num_components
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rename_dim_variable
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::get_param_value
prior_hessian::Composite Dist::params
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::num_params_components
prior_hessian::Composite Dist::num_params
prior_hessian::Composite Dist::grad2
prior_hessian::Composite Dist::set_dim_variables
prior_hessian::Composite Dist::num_dim_components
prior_hessian::Composite Dist::dim_variables
prior_hessian::Composite Dist::num_dim
prior_hessian::Composite Dist::hess
prior_hessian::Composite Dist::grad
prior_hessian::Composite Dist::global_lbound
prior_hessian::Composite Dist::global_ubound
prior_hessian::Composite Dist::grad2_accumulate
prior_hessian::Composite Dist::rllh_components
prior_hessian::Composite Dist::grad_accumulate
prior_hessian::Composite Dist::grad_grad2_accumulate
prior_hessian::Composite Dist::grad_hess_accumulate
prior_hessian::Composite Dist::hess_accumulate
prior_hessian::Composite Dist::lbound
prior_hessian::Composite Dist::llh
prior_hessian::Composite Dist::llh_components
prior_hessian::meta ::logical_and_in_order
prior_hessian::meta ::constexpr_accumulate
prior_hessian::Composite Dist::params_lbound
prior_hessian::Composite Dist::params_ubound
prior_hessian::Composite Dist::pdf
prior_hessian::Composite Dist::rllh
prior_hessian::Composite Dist::sample
prior_hessian::Composite Dist::set_bounds
prior_hessian::Composite Dist::set_lbound
prior_hessian::Composite Dist::set_params
prior_hessian::Composite Dist::set_ubound
prior_hessian::Composite Dist::ubound

7.7.5.63 VecT prior_hessian::CompositeDist::sample (AnyRngT & *rng*) const [inline]

Definition at line 229 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_sample(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_sample(), and rllh_components().

Here is the caller graph for this function:


prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::append_sample
prior_hessian::Composite
Dist::sample
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::append_sample
prior_hessian::Composite
Dist::rllh_components

7.7.5.64 VecT prior_hessian::CompositeDist::sample (AnyRngT && *rng*) const [inline]

Definition at line 230 of file CompositeDist.h.

7.7.5.65 MatT prior_hessian::CompositeDist::sample (AnyRngT & *rng,* IdxT *num_samples*) const [inline]

Definition at line 231 of file CompositeDist.h.

7.7.5.66 MatT prior_hessian::CompositeDist::sample (AnyRngT && *rng,* IdxT *num_samples*) const [inline]

Definition at line 232 of file CompositeDist.h.

7.7.5.67 template<class RngT > VecT prior_hessian::CompositeDist::sample (RngT && *rng*) const [inline]

Definition at line 235 of file CompositeDist.h.

7.7.5.68 template<class RngT > MatT prior_hessian::CompositeDist::sample (RngT && *rng,* IdxT *num_samples*) const [inline]

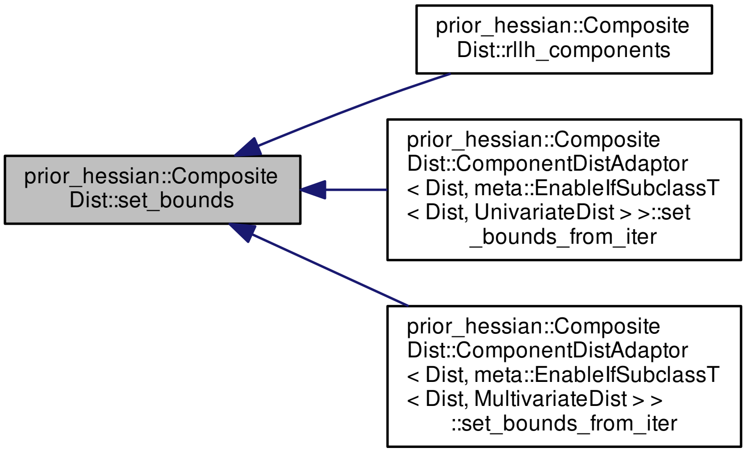
Definition at line 242 of file CompositeDist.h.

7.7.5.69 void prior_hessian::CompositeDist::set_bounds (const VecT & *new_lbound,* const VecT & *new_ubound*) [inline]

Definition at line 156 of file CompositeDist.h.

Referenced by rllh_components(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIf↩ SubclassT< Dist, UnivariateDist > >::set_bounds_from_iter(), and prior_hessian::CompositeDist::ComponentDist↩ Adaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::set_bounds_from_iter().

Here is the caller graph for this function:


prior_hessian::Composite
Dist::rllh_components
prior_hessian::Composite
Dist::set_bounds
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::set
_bounds_from_iter
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::set_bounds_from_iter

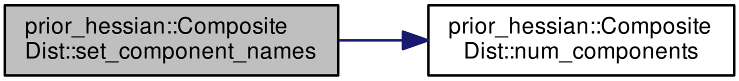
7.7.5.70 template<class StringVec > void prior_hessian::CompositeDist::set_component_names (StringVec && *names*)

Definition at line 943 of file CompositeDist.h.

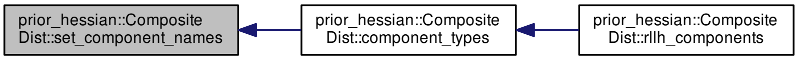
References num_components().

Referenced by component_types().

Here is the call graph for this function:



Here is the caller graph for this function:



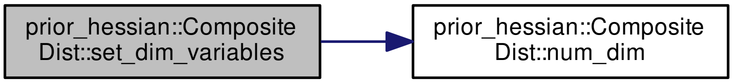
7.7.5.71 template< class StringVec > void prior_hessian::CompositeDist::set_dim_variables (StringVec && *vars*)

Definition at line 955 of file CompositeDist.h.

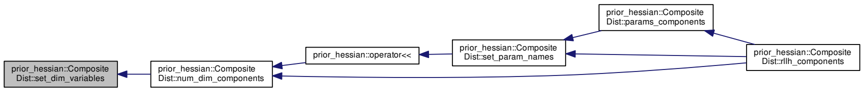
References num_dim().

Referenced by num_dim_components().

Here is the call graph for this function:



Here is the caller graph for this function:

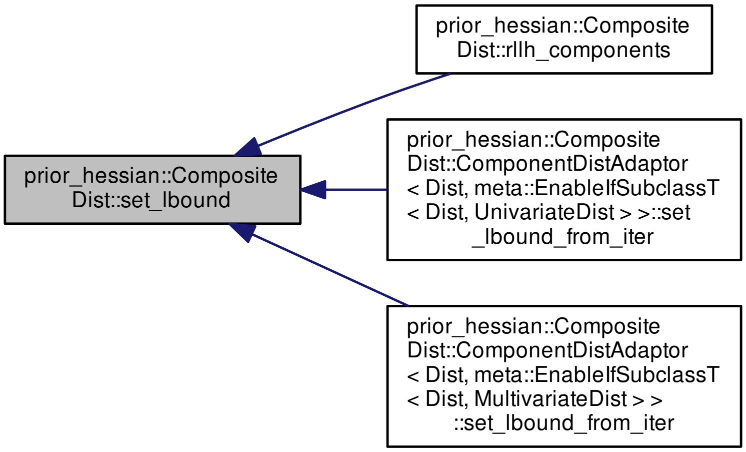


7.7.5.72 void prior_hessian::CompositeDist::set_lbound (const VecT & *new_bound*) [inline]

Definition at line 154 of file CompositeDist.h.

Referenced by rllh_components(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::set_lbound_from_iter(), and prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::set_lbound_from_iter().

Here is the caller graph for this function:


prior_hessian::Composite
Dist::set_lbound
prior_hessian::Composite
Dist::rllh_components
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::set
_lbound_from_iter
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::set_lbound_from_iter

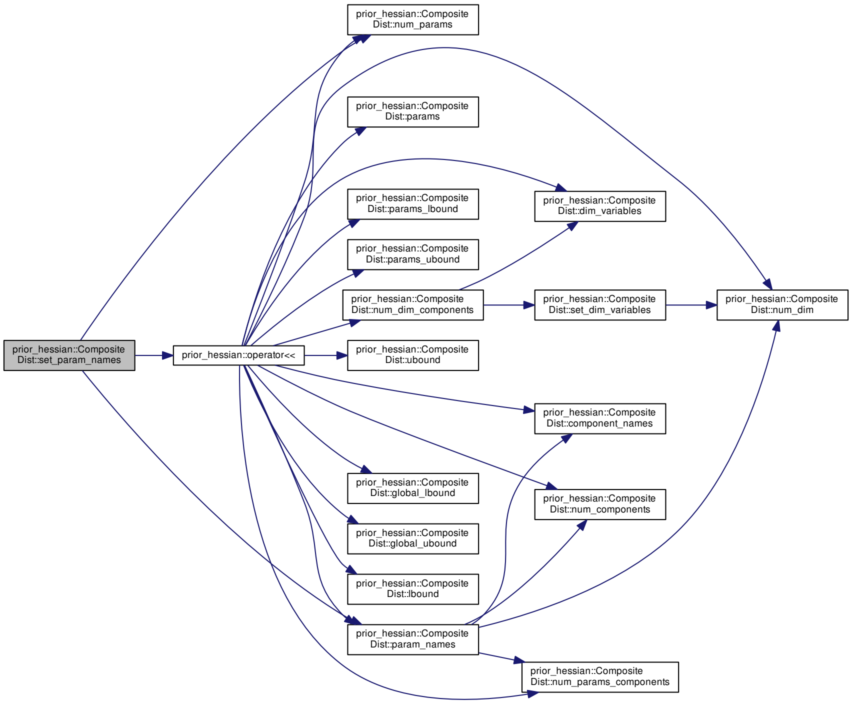
7.7.5.73 template<class StringVec > void prior_hessian::CompositeDist::set_param_names (StringVec && *vars*)

Definition at line 967 of file CompositeDist.h.

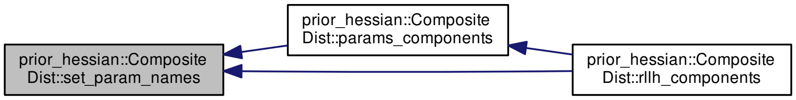
References num_params(), prior_hessian::operator<<(), and param_names().

Referenced by params_components(), and rllh_components().

Here is the call graph for this function:


prior_hessian::Composite Dist::num_params
prior_hessian::Composite Dist::params
prior_hessian::Composite Dist::params_lbound
prior_hessian::Composite Dist::dim_variables
prior_hessian::Composite Dist::params_ubound
prior_hessian::Composite Dist::num_dim_components
prior_hessian::Composite Dist::set_dim_variables
prior_hessian::Composite Dist::num_dim
prior_hessian::Composite Dist::set_param_names
prior_hessian::operator<<
prior_hessian::Composite Dist::ubound
prior_hessian::Composite Dist::component_names
prior_hessian::Composite Dist::global_lbound
prior_hessian::Composite Dist::num_components
prior_hessian::Composite Dist::global_ubound
prior_hessian::Composite Dist::lbound
prior_hessian::Composite Dist::param_names
prior_hessian::Composite Dist::num_params_components

Here is the caller graph for this function:


prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::set_param_names
prior_hessian::Composite Dist::rllh_components

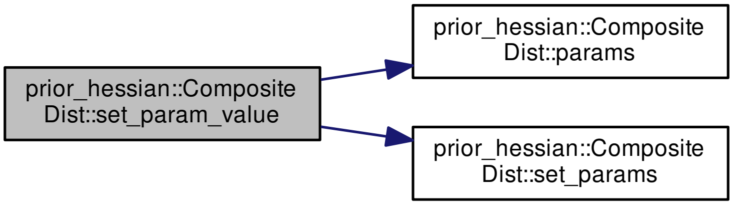
7.7.5.74 void prior_hessian::CompositeDist::set_param_value (const std::string & *name,* double *value*)

Definition at line 233 of file CompositeDist.cpp.

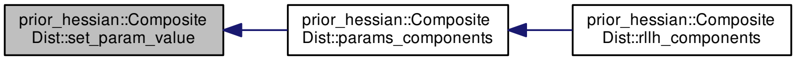
References params(), and set_params().

Referenced by params_components().

Here is the call graph for this function:


prior_hessian::Composite Dist::set_param_value
prior_hessian::Composite Dist::params
prior_hessian::Composite Dist::set_params

Here is the caller graph for this function:

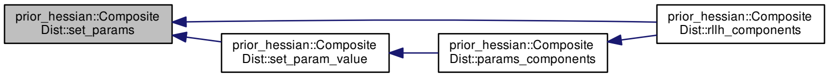

prior_hessian::Composite Dist::set_param_value
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.75 void prior_hessian::CompositeDist::set_params (const VecT & *new_params*) [inline]

Definition at line 162 of file CompositeDist.h.

Referenced by rllh_components(), and set_param_value().

Here is the caller graph for this function:

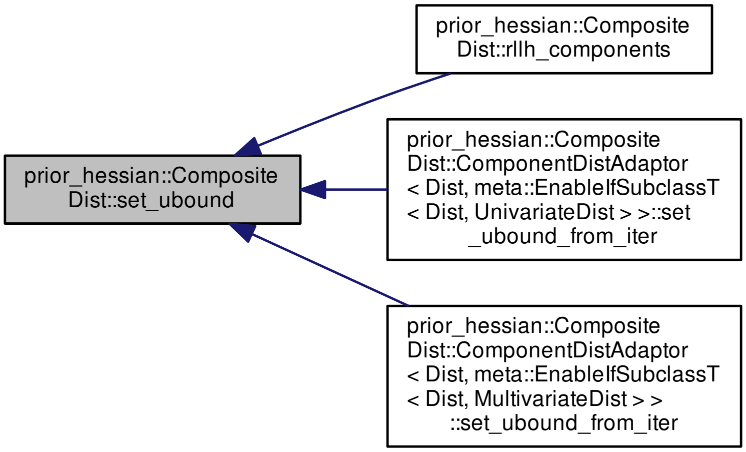

prior_hessian::Composite Dist::set_params
prior_hessian::Composite Dist::set_param_value
prior_hessian::Composite Dist::params_components
prior_hessian::Composite Dist::rllh_components

7.7.5.76 void prior_hessian::CompositeDist::set_ubound (const VecT & *new_bound*) [inline]

Definition at line 155 of file CompositeDist.h.

Referenced by rllh_components(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::set_ubound_from_iter(), and prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::set_ubound_from_iter().

Here is the caller graph for this function:

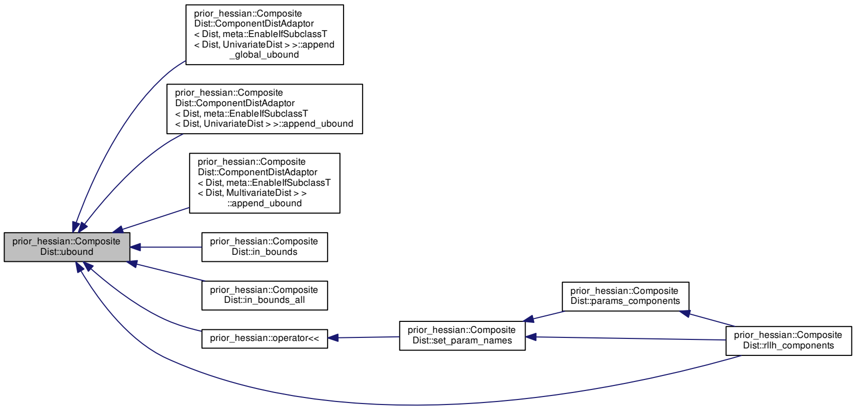

prior_hessian::Composite
Dist::set_ubound
prior_hessian::Composite
Dist::rllh_components
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, UnivariateDist > >::set
_ubound_from_iter
prior_hessian::Composite
Dist::ComponentDistAdaptor
< Dist, meta::EnableIfSubclassT
< Dist, MultivariateDist > >
::set_ubound_from_iter

7.7.5.77 VecT prior_hessian::CompositeDist::ubound ( ) const [inline]

Definition at line 144 of file CompositeDist.h.

Referenced by prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_global_ubound(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >::append_ubound(), prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >::append_ubound(), in_bounds(), in_bounds_all(), prior_hessian::operator<<(), and rllh_components().

Here is the caller graph for this function:



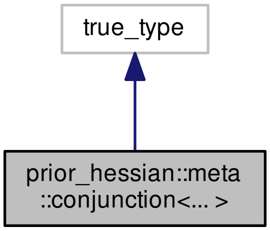
The documentation for this class was generated from the following files:

- CompositeDist.h
- CompositeDist.cpp

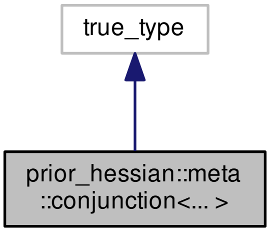
7.8 prior_hessian::meta::conjunction< ... > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Inheritance diagram for prior_hessian::meta::conjunction< ... >:



Collaboration diagram for prior_hessian::meta::conjunction< ... >:



7.8.1 Detailed Description

template<class...>
struct prior_hessian::meta::conjunction< ... >

Definition at line 66 of file Meta.h.

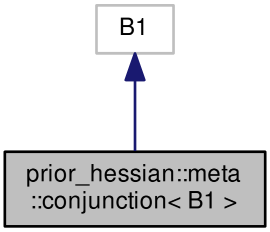
The documentation for this struct was generated from the following file:

- Meta.h

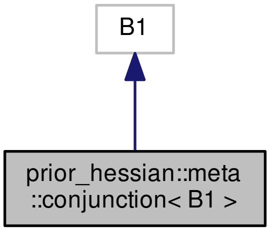
7.9 prior_hessian::meta::conjunction< B1 > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
Meta.h>
```

Inheritance diagram for prior_hessian::meta::conjunction< B1 >:



Collaboration diagram for prior_hessian::meta::conjunction< B1 >:



7.9.1 Detailed Description

template<class B1>
struct prior_hessian::meta::conjunction< B1 >

Definition at line 67 of file Meta.h.

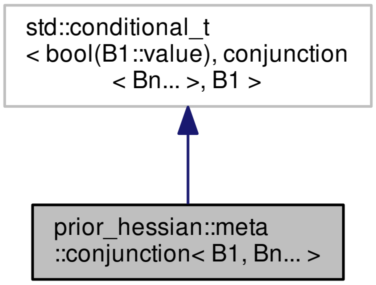
The documentation for this struct was generated from the following file:

- Meta.h

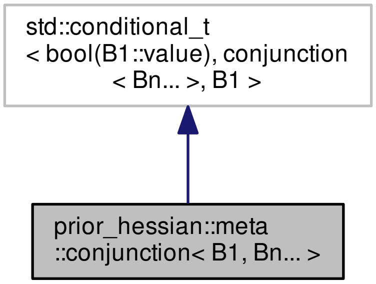
7.10 prior_hessian::meta::conjunction< B1, Bn... > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Inheritance diagram for prior_hessian::meta::conjunction< B1, Bn... >:



Collaboration diagram for prior_hessian::meta::conjunction< B1, Bn... >:



7.10.1 Detailed Description

template<class B1, class... Bn>
struct prior_hessian::meta::conjunction< B1, Bn... >

Definition at line 69 of file Meta.h.

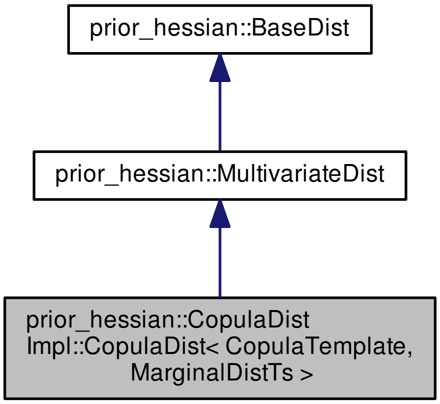
The documentation for this struct was generated from the following file:

- Meta.h

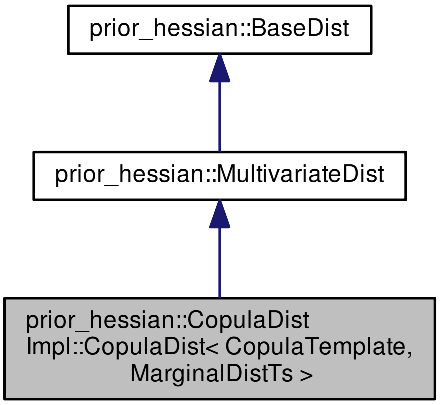
7.11 prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
CopulaDist.h>
```

Inheritance diagram for prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >:


prior_hessian::BaseDist
prior_hessian::MultivariateDist
prior_hessian::CopulaDist Impl::CopulaDist< CopulaTemplate, MarginalDistTs >

Collaboration diagram for prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >:


prior_hessian::BaseDist
prior_hessian::MultivariateDist
prior_hessian::CopulaDist Impl::CopulaDist< CopulaTemplate, MarginalDistTs >

Public Types

- using NdimVecT = arma::Col< double >::fixed< _num_dim >
- using NdimMatT = arma::Mat< double >::fixed< _num_dim, _num_dim >
- using NparamsVecT = arma::Col< double >
- using MarginalDistTupleT = std::tuple< MarginalDistTs... >
- using CopulaT = CopulaTemplate< _num_dim >
- template<size_t I>
  using MarginalDistT = std::tuple_element< I, MarginalDistTupleT >

Public Member Functions

- CopulaDist ()
- template<class Copula , class... DistTs, std::enable_if_t< sizeof...(DistTs)==sizeof...(MarginalDistTs), bool > Enable = true>
  CopulaDist (Copula &&copula, DistTs &&...dists)
- void initialize_copula (const CopulaT &_copula)
- void initialize_marginals (const MarginalDistTupleT &dists)
- NdimVecT lbound () const
- NdimVecT ubound () const
- template<class Vec , class Vec2 >
  void set_bounds (const Vec &lbound, const Vec2 &ubound)
- template<class Vec >
  void set_lbound (const Vec &lbound)
- template<class Vec >
  void set_ubound (const Vec &ubound)
- bool operator== (const CopulaDist< CopulaTemplate, MarginalDistTs... > &o) const
- bool operator!= (const CopulaDist< CopulaTemplate, MarginalDistTs... > &o) const
- NparamsVecT params () const
- double get_copula_theta () const
- void set_copula_theta (double theta)
- template<class Vec >
  void set_params (const Vec &params)
- template<class Vec >
  double cdf (const Vec &x) const
- template<class Vec >
  double pdf (const Vec &x) const
- template<class Vec >
  double llh (const Vec &x) const
- template<class Vec >
  double rllh (const Vec &x) const
- template<class Vec >
  NdimVecT grad (const Vec &x) const
- template<class Vec >
  NdimVecT grad2 (const Vec &x) const
- template<class Vec >
  NdimMatT hess (const Vec &x) const
- template<class Vec , class Vec2 >
  void grad_grad2_accumulate (const Vec &x, Vec2 &g, Vec2 &g2) const
- template<class Vec , class Vec2 , class Mat >
  void grad_hess_accumulate (const Vec &x, Vec2 &g, Mat &hess) const
- template<class RngT >
  NdimVecT sample (RngT &rng) const
- template<class IterT >
  void set_params_iter (IterT &params)

Static Public Member Functions

- static IdxT num_params ()
- static constexpr IdxT num_components ()
- static constexpr IdxT num_dim ()
- template<class Vec >
  static bool check_params (const Vec &params)
- static bool check_copula_theta (double theta)
- static const StringVecT & param_names ()
- static const NparamsVecT & param_lbound ()
- static const NparamsVecT & param_ubound ()
- static const NdimVecT & global_lbound ()
- static const NdimVecT & global_ubound ()
- template<class IterT >
  static bool check_params_iter (IterT &params)

Static Protected Member Functions

- template<class Vec >
  static void check_bounds (const Vec &lbound, const Vec &ubound)

7.11.1 Detailed Description

template<template< int > class CopulaTemplate, class... MarginalDistTs>
class prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >

Definition at line 22 of file CopulaDist.h.

7.11.2 Member Typedef Documentation

7.11.2.1 template<template< int > class CopulaTemplate, class... MarginalDistTs> using prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::CopulaT = CopulaTemplate<_num_dim>

Definition at line 41 of file CopulaDist.h.

7.11.2.2 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<size_t I> using prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::MarginalDistT = std::tuple_element<I,MarginalDistTupleT>

Definition at line 44 of file CopulaDist.h.

7.11.2.3 template<template< int > class CopulaTemplate, class... MarginalDistTs> using prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::MarginalDistTupleT = std::tuple<MarginalDistTs...>

Definition at line 40 of file CopulaDist.h.

7.11.2.4 template<template< int > class CopulaTemplate, class... MarginalDistTs> using prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::NdimMatT = arma::Mat<double>::fixed<_num_dim,_num_dim>

Definition at line 32 of file CopulaDist.h.

7.11.2.5 template<template< int > class CopulaTemplate, class... MarginalDistTs> using prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::NdimVecT = arma::Col<double>::fixed<_num_dim>

Definition at line 31 of file CopulaDist.h.

7.11.2.6 template<template< int > class CopulaTemplate, class... MarginalDistTs> using prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::NparamsVecT = arma::Col<double>

Definition at line 37 of file CopulaDist.h.

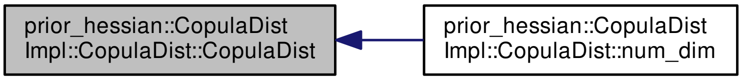
7.11.3 Constructor & Destructor Documentation

7.11.3.1 template<template< int > class CopulaTemplate, class... MarginalDistTs> prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::CopulaDist ( )

Definition at line 242 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim().

Here is the caller graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::CopulaDist
prior_hessian::CopulaDist Impl::CopulaDist::num_dim

7.11.3.2 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Copula , class... DistTs, std::enable_if_t< sizeof...(DistTs)==sizeof...(MarginalDistTs), bool > Enable> prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::CopulaDist (Copula && *copula,* DistTs &&... *dists*)

Definition at line 233 of file CopulaDist.h.

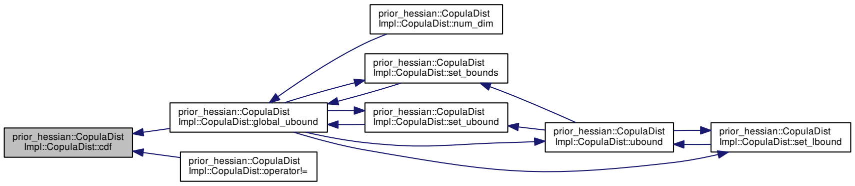
7.11.4 Member Function Documentation

7.11.4.1 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec > double prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::cdf (const Vec & *x*) const

Definition at line 385 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::cdf
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::operator!=
prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound

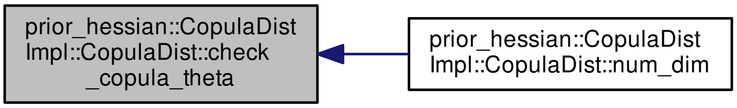
7.11.4.2 template<class Vec > static void prior_hessian::MultivariateDist::check_bounds (const Vec & *lbound,* const Vec & *ubound*) [inline], [static], [protected], [inherited]

Definition at line 57 of file MultivariateDist.h.

7.11.4.3 template<template< int > class CopulaTemplate, class... MarginalDistTs> static bool prior_hessian::←CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::check_copula_theta (double *theta*) [static]

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim().

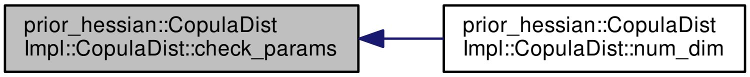
Here is the caller graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::check _copula_theta
prior_hessian::CopulaDist Impl::CopulaDist::num_dim

7.11.4.4 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec > static bool prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::check_params (const Vec & *params*) [static]

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim().

Here is the caller graph for this function:

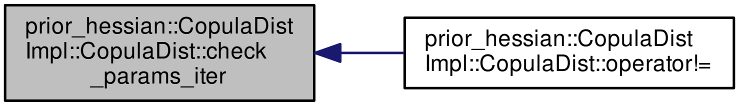

prior_hessian::CopulaDist
Impl::CopulaDist::check_params
prior_hessian::CopulaDist
Impl::CopulaDist::num_dim

7.11.4.5 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class IterT > bool prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::check_params_iter (IterT & *params*) [static]

Definition at line 368 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

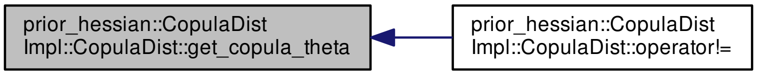

prior_hessian::CopulaDist
Impl::CopulaDist::check
_params_iter
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

7.11.4.6 template<template< int > class CopulaTemplate, class... MarginalDistTs> double prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::get_copula_theta ( ) const

Definition at line 346 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

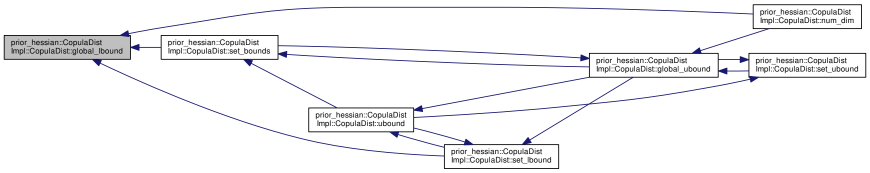

prior_hessian::CopulaDist
Impl::CopulaDist::get_copula_theta
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

7.11.4.7 template<template< int > class CopulaTemplate, class... MarginalDistTs> const CopulaDist< CopulaTemplate, MarginalDistTs... >::NdimVecT & prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_lbound ( ) [static]

Definition at line 536 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_bounds(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_lbound().

Here is the caller graph for this function:


prior_hessian::CopulaDist
Impl::CopulaDist::global_lbound
prior_hessian::CopulaDist
Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist
Impl::CopulaDist::num_dim
prior_hessian::CopulaDist
Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::ubound
prior_hessian::CopulaDist
Impl::CopulaDist::set_lbound

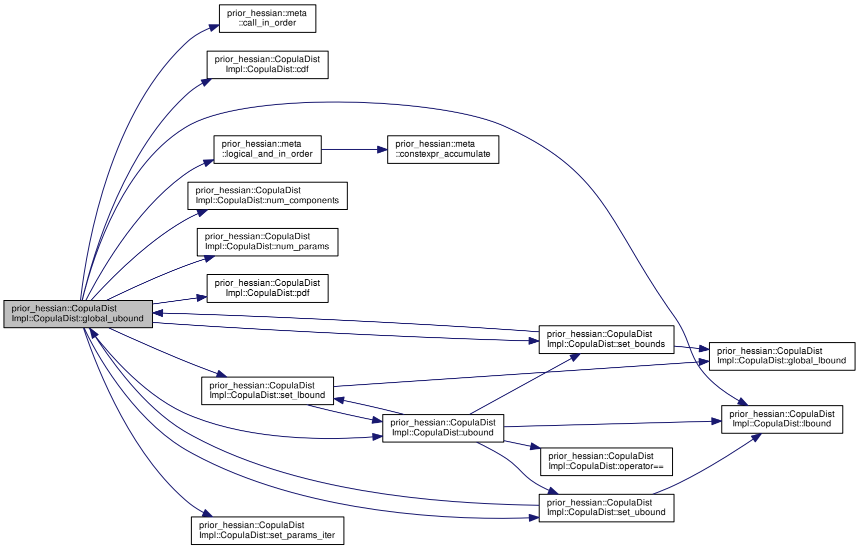
7.11.4.8 template<template< int > class CopulaTemplate, class... MarginalDistTs> const CopulaDist< CopulaTemplate, MarginalDistTs... >::NdimVecT & prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound ( ) [static]

Definition at line 545 of file CopulaDist.h.

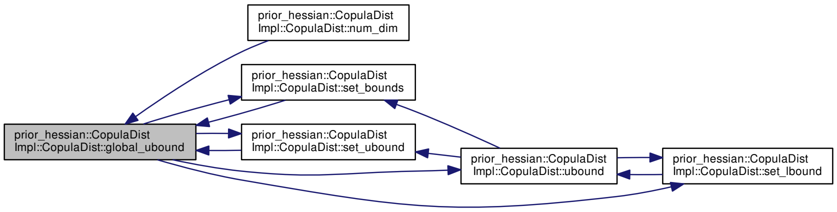
References prior_hessian::meta::call_in_order(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::cdf(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::lbound(), prior_hessian::meta::logical_and_in_order(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_components(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_params(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::pdf(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_bounds(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_lbound(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_params_iter(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::ubound().

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_bounds(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_ubound().

Here is the call graph for this function:


prior_hessian::meta ::call_in_order
prior_hessian::CopulaDist Impl::CopulaDist::cdf
prior_hessian::meta ::logical_and_in_order
prior_hessian::meta ::constexpr_accumulate
prior_hessian::CopulaDist Impl::CopulaDist::num_components
prior_hessian::CopulaDist Impl::CopulaDist::num_params
prior_hessian::CopulaDist Impl::CopulaDist::pdf
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::global_lbound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::lbound
prior_hessian::CopulaDist Impl::CopulaDist::operator==
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_params_iter

Here is the caller graph for this function:

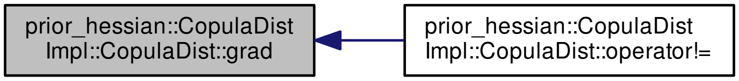

prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound

7.11.4.9 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec > **CopulaDist**< CopulaTemplate, MarginalDistTs... >::**NdimVecT prior_hessian::CopulaDistImpl::CopulaDist**< CopulaTemplate, MarginalDistTs >::grad (const Vec & *x*) const

Definition at line 428 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

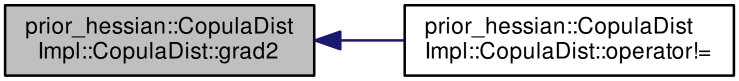

prior_hessian::CopulaDist
Impl::CopulaDist::grad
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

7.11.4.10 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec > **CopulaDist**< CopulaTemplate, MarginalDistTs... >::**NdimVecT prior_hessian::CopulaDistImpl::CopulaDist**< CopulaTemplate, MarginalDistTs >::grad2 (const Vec & *x*) const

Definition at line 440 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

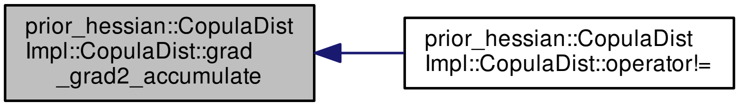

prior_hessian::CopulaDist
Impl::CopulaDist::grad2
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

7.11.4.11 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec , class Vec2 > void **prior_hessian::CopulaDistImpl::CopulaDist**< CopulaTemplate, MarginalDistTs >::grad_grad2_accumulate (const Vec & *x,* Vec2 & *g,* Vec2 & *g2*) const

Definition at line 466 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

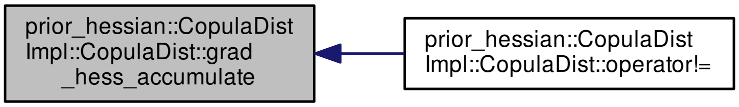

prior_hessian::CopulaDist
Impl::CopulaDist::grad
_grad2_accumulate
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

7.11.4.12 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec , class Vec2 , class Mat > void prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::grad_hess_accumulate (const Vec & *x*, Vec2 & *g*, Mat & *hess*) const

Definition at line 481 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

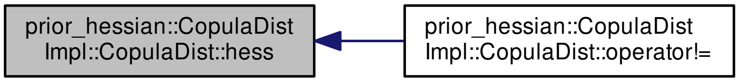

prior_hessian::CopulaDist Impl::CopulaDist::grad _hess_accumulate
prior_hessian::CopulaDist Impl::CopulaDist::operator!=

7.11.4.13 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec > CopulaDist< CopulaTemplate, MarginalDistTs... >::NdimMatT prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::hess (const Vec & *x*) const

Definition at line 452 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

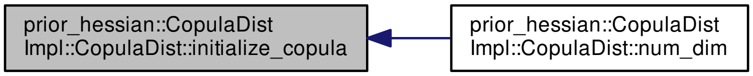

prior_hessian::CopulaDist Impl::CopulaDist::hess
prior_hessian::CopulaDist Impl::CopulaDist::operator!=

7.11.4.14 template<template< int > class CopulaTemplate, class... MarginalDistTs> void prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::initialize_copula (const CopulaT & *_copula*)

Definition at line 255 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim().

Here is the caller graph for this function:

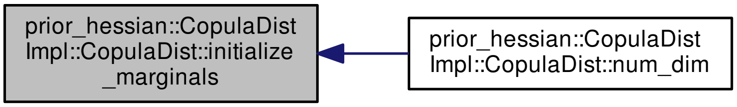

prior_hessian::CopulaDist Impl::CopulaDist::initialize_copula
prior_hessian::CopulaDist Impl::CopulaDist::num_dim

7.11.4.15 template<template< int > class CopulaTemplate, class... MarginalDistTs> void prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::initialize_marginals (const MarginalDistTupleT & *dists*)

Definition at line 262 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim().

Here is the caller graph for this function:

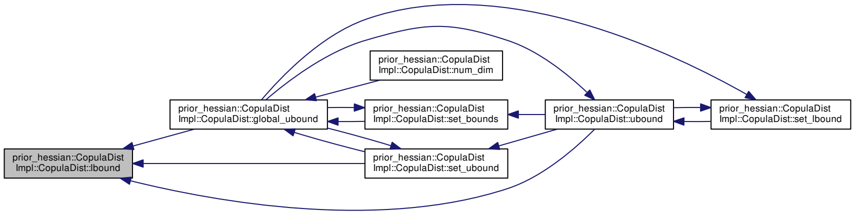

prior_hessian::CopulaDist Impl::CopulaDist::initialize _marginals
prior_hessian::CopulaDist Impl::CopulaDist::num_dim

7.11.4.16 template<template< int > class CopulaTemplate, class... MarginalDistTs> NdimVecT prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::lbound ( ) const [inline]

Definition at line 67 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::ubound().

Here is the caller graph for this function:

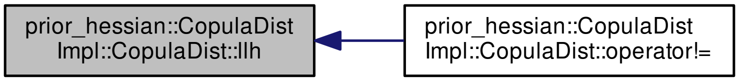

prior_hessian::CopulaDist Impl::CopulaDist::lbound
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound

7.11.4.17 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec > double prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::llh (const Vec & *x*) const

Definition at line 405 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

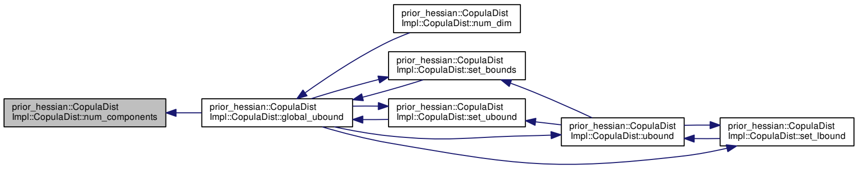

prior_hessian::CopulaDist
Impl::CopulaDist::llh
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

7.11.4.18 template<template< int > class CopulaTemplate, class... MarginalDistTs> static constexpr IdxT prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_components ( ) [inline], [static]

Definition at line 46 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound().

Here is the caller graph for this function:

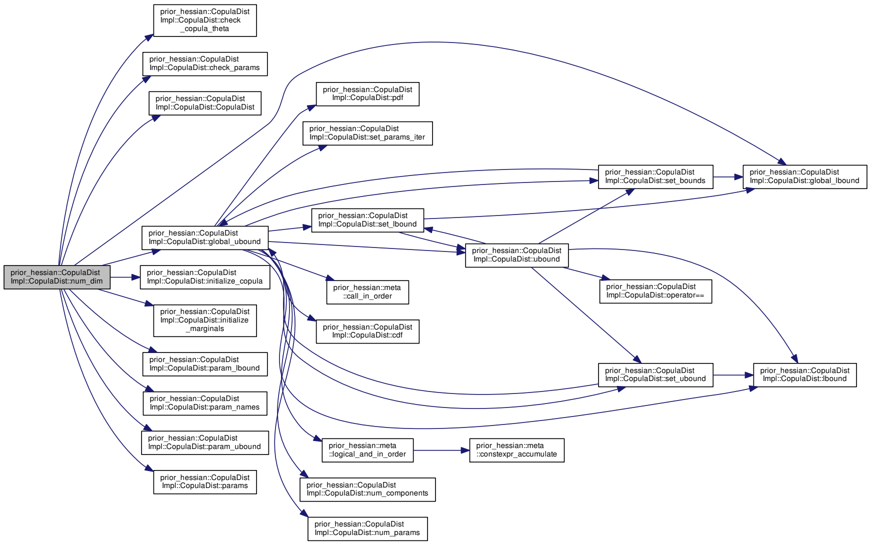

prior_hessian::CopulaDist
Impl::CopulaDist::num_components
prior_hessian::CopulaDist
Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::num_dim
prior_hessian::CopulaDist
Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist
Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::ubound
prior_hessian::CopulaDist
Impl::CopulaDist::set_lbound

7.11.4.19 template<template< int > class CopulaTemplate, class... MarginalDistTs> static constexpr IdxT prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim ( ) [inline], [static]

Definition at line 47 of file CopulaDist.h.

References prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::check_copula_theta(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::check_params(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::CopulaDist(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_lbound(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::initialize_copula(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::initialize_marginals(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::param_lbound(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::param_names(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::param_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::params().

Here is the call graph for this function:

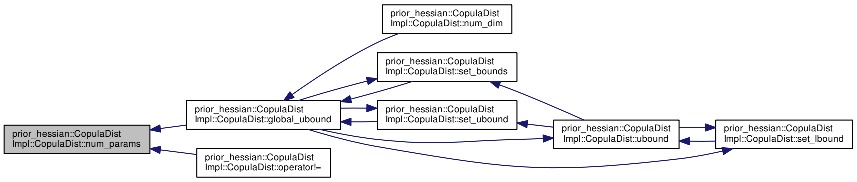

prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::check _copula_theta
prior_hessian::CopulaDist Impl::CopulaDist::check_params
prior_hessian::CopulaDist Impl::CopulaDist::CopulaDist
prior_hessian::CopulaDist Impl::CopulaDist::pdf
prior_hessian::CopulaDist Impl::CopulaDist::set_params_iter
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::global_lbound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::initialize_copula
prior_hessian::meta ::call_in_order
prior_hessian::CopulaDist Impl::CopulaDist::operator==
prior_hessian::CopulaDist Impl::CopulaDist::initialize _marginals
prior_hessian::CopulaDist Impl::CopulaDist::cdf
prior_hessian::CopulaDist Impl::CopulaDist::param_lbound
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::lbound
prior_hessian::CopulaDist Impl::CopulaDist::param_names
prior_hessian::CopulaDist Impl::CopulaDist::param_ubound
prior_hessian::meta ::logical_and_in_order
prior_hessian::meta ::constexpr_accumulate
prior_hessian::CopulaDist Impl::CopulaDist::params
prior_hessian::CopulaDist Impl::CopulaDist::num_components
prior_hessian::CopulaDist Impl::CopulaDist::num_params

7.11.4.20 template<template< int > class CopulaTemplate, class... MarginalDistTs> static IdxT prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_params ( ) [inline], [static]

Definition at line 38 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

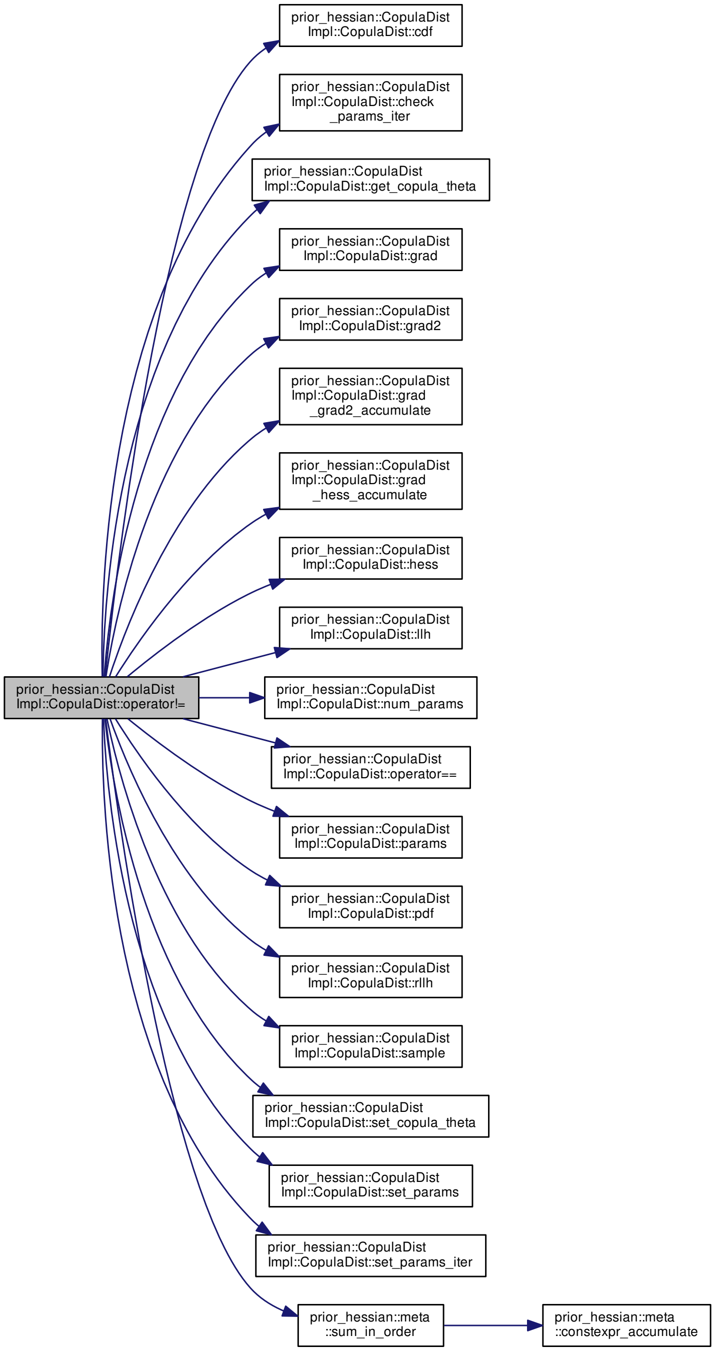

prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::num_params
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::operator!=

7.11.4.21 template< template< int > class CopulaTemplate, class... MarginalDistTs> bool prior_hessian::CopulaDist↩ Impl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!= (const CopulaDist< CopulaTemplate, MarginalDistTs... > & *o*) const [inline]

Definition at line 80 of file CopulaDist.h.

References prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::cdf(), prior_hessian::↩ CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::check_params_iter(), prior_hessian::CopulaDist↩ Impl::CopulaDist< CopulaTemplate, MarginalDistTs >::get_copula_theta(), prior_hessian::CopulaDistImpl::Copula↩ Dist< CopulaTemplate, MarginalDistTs >::grad(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::grad2(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::grad_↩ grad2_accumulate(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::grad_hess_↩ accumulate(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::hess(), prior_hessian↩ ::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::llh(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_params(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator==(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >↩ ::params(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::pdf(), prior_hessian↩ ::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::rllh(), prior_hessian::CopulaDistImpl::Copula↩ Dist< CopulaTemplate, MarginalDistTs >::sample(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_copula_theta(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_params(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_params_iter(), and prior_hessian::meta::sum_in_order().

Here is the call graph for this function:

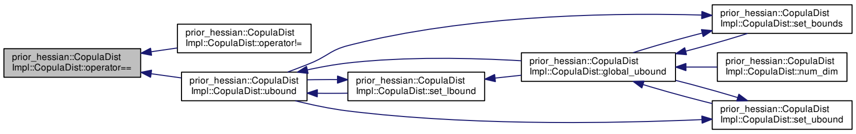

prior_hessian::CopulaDist Impl::CopulaDist::operator!=
prior_hessian::CopulaDist Impl::CopulaDist::cdf
prior_hessian::CopulaDist Impl::CopulaDist::check _params_iter
prior_hessian::CopulaDist Impl::CopulaDist::get_copula_theta
prior_hessian::CopulaDist Impl::CopulaDist::grad
prior_hessian::CopulaDist Impl::CopulaDist::grad2
prior_hessian::CopulaDist Impl::CopulaDist::grad _grad2_accumulate
prior_hessian::CopulaDist Impl::CopulaDist::grad _hess_accumulate
prior_hessian::CopulaDist Impl::CopulaDist::hess
prior_hessian::CopulaDist Impl::CopulaDist::llh
prior_hessian::CopulaDist Impl::CopulaDist::num_params
prior_hessian::CopulaDist Impl::CopulaDist::operator==
prior_hessian::CopulaDist Impl::CopulaDist::params
prior_hessian::CopulaDist Impl::CopulaDist::pdf
prior_hessian::CopulaDist Impl::CopulaDist::rllh
prior_hessian::CopulaDist Impl::CopulaDist::sample
prior_hessian::CopulaDist Impl::CopulaDist::set_copula_theta
prior_hessian::CopulaDist Impl::CopulaDist::set_params
prior_hessian::CopulaDist Impl::CopulaDist::set_params_iter
prior_hessian::meta ::sum_in_order
prior_hessian::meta ::constexpr_accumulate

7.11.4.22 template<template< int > class CopulaTemplate, class... MarginalDistTs> bool prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator== (const CopulaDist< CopulaTemplate, MarginalDistTs... > & *o*) const

Definition at line 330 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::ubound().

Here is the caller graph for this function:

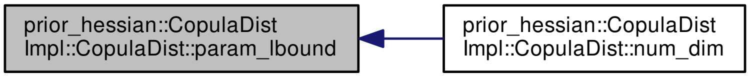

prior_hessian::CopulaDist Impl::CopulaDist::operator==
prior_hessian::CopulaDist Impl::CopulaDist::operator!=
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound

7.11.4.23 template<template< int > class CopulaTemplate, class... MarginalDistTs> const CopulaDist< CopulaTemplate, MarginalDistTs... >::NparamsVecT & prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::param_lbound ( ) [static]

Definition at line 518 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim().

Here is the caller graph for this function:

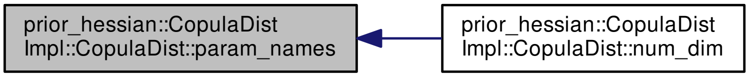

prior_hessian::CopulaDist Impl::CopulaDist::param_lbound
prior_hessian::CopulaDist Impl::CopulaDist::num_dim

7.11.4.24 template<template< int > class CopulaTemplate, class... MarginalDistTs> const StringVecT & prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::param_names ( ) [static]

Definition at line 509 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim().

Here is the caller graph for this function:

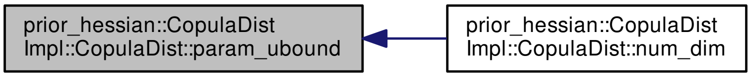

prior_hessian::CopulaDist Impl::CopulaDist::param_names
prior_hessian::CopulaDist Impl::CopulaDist::num_dim

7.11.4.25 template<template< int > class CopulaTemplate, class... MarginalDistTs> const **CopulaDist**< CopulaTemplate, MarginalDistTs... >::NparamsVecT & prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::param_ubound ( ) `[static]`

Definition at line 527 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim().

Here is the caller graph for this function:

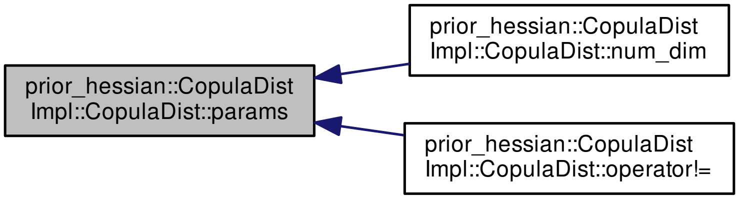

prior_hessian::CopulaDist Impl::CopulaDist::param_ubound
prior_hessian::CopulaDist Impl::CopulaDist::num_dim

7.11.4.26 template<template< int > class CopulaTemplate, class... MarginalDistTs> **CopulaDist**< CopulaTemplate, MarginalDistTs... >::NparamsVecT prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::params ( ) const

Definition at line 337 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::num_dim(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

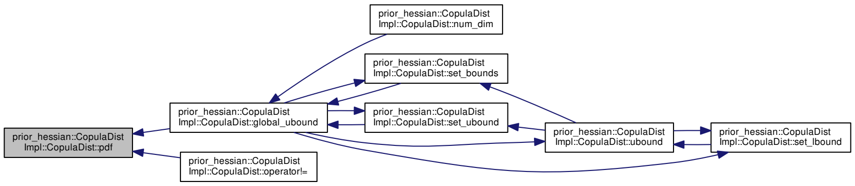

prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::params
prior_hessian::CopulaDist Impl::CopulaDist::operator!=

7.11.4.27 template< template< int > class CopulaTemplate, class... MarginalDistTs> template< class Vec > double prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::pdf (const Vec & *x*) const

Definition at line 394 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

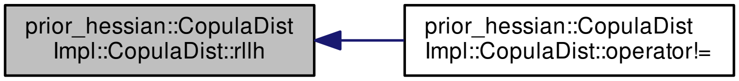

prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::pdf
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::operator!=

7.11.4.28 template< template< int > class CopulaTemplate, class... MarginalDistTs> template< class Vec > double prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::rllh (const Vec & *x*) const

Definition at line 416 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

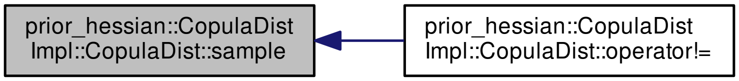

prior_hessian::CopulaDist Impl::CopulaDist::rllh
prior_hessian::CopulaDist Impl::CopulaDist::operator!=

7.11.4.29 template< template< int > class CopulaTemplate, class... MarginalDistTs> template< class RngT > CopulaDist< CopulaTemplate, MarginalDistTs... >::NdimVecT prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::sample (RngT & *rng*) const

Definition at line 499 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:


prior_hessian::CopulaDist
Impl::CopulaDist::sample
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

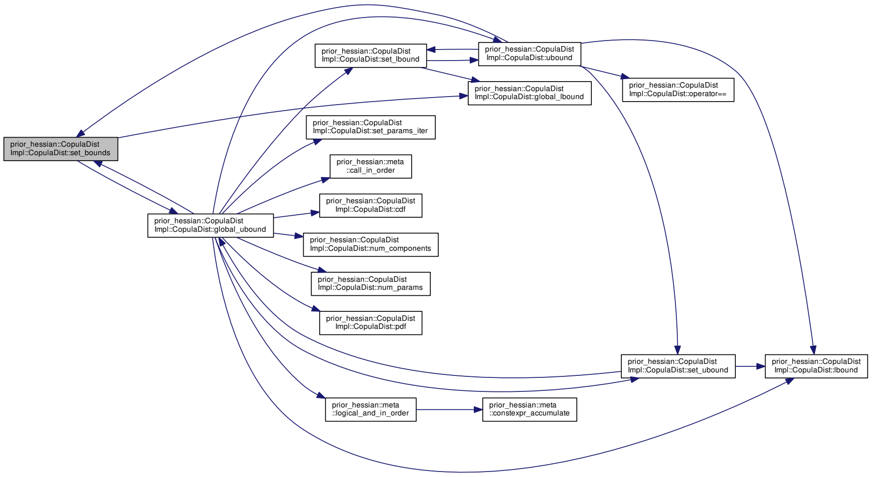
7.11.4.30 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec , class Vec2 > void **prior_hessian::CopulaDistImpl::CopulaDist**< CopulaTemplate, MarginalDistTs >::set_bounds (const Vec & *lbound,* const Vec2 & *ubound*)

Definition at line 271 of file CopulaDist.h.

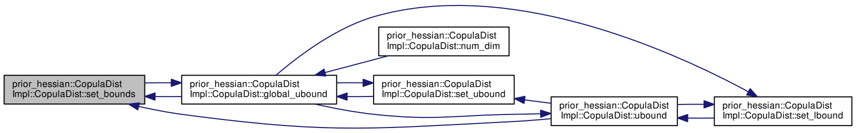
References prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_lbound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound().

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::ubound().

Here is the call graph for this function:


prior_hessian::CopulaDist
Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist
Impl::CopulaDist::ubound
prior_hessian::CopulaDist
Impl::CopulaDist::global_lbound
prior_hessian::CopulaDist
Impl::CopulaDist::operator==
prior_hessian::CopulaDist
Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist
Impl::CopulaDist::set_params_iter
prior_hessian::meta
::call_in_order
prior_hessian::CopulaDist
Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::cdf
prior_hessian::CopulaDist
Impl::CopulaDist::num_components
prior_hessian::CopulaDist
Impl::CopulaDist::num_params
prior_hessian::CopulaDist
Impl::CopulaDist::pdf
prior_hessian::CopulaDist
Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::lbound
prior_hessian::meta
::logical_and_in_order
prior_hessian::meta
::constexpr_accumulate

Here is the caller graph for this function:

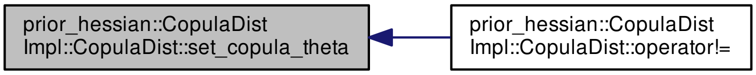

prior_hessian::CopulaDist
Impl::CopulaDist::num_dim
prior_hessian::CopulaDist
Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist
Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::ubound
prior_hessian::CopulaDist
Impl::CopulaDist::set_lbound

7.11.4.31 template< template< int > class CopulaTemplate, class... MarginalDistTs> void prior_hessian::↩ CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_copula_theta (double *theta*)

Definition at line 352 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:


prior_hessian::CopulaDist
Impl::CopulaDist::set_copula_theta
prior_hessian::CopulaDist
Impl::CopulaDist::operator!=

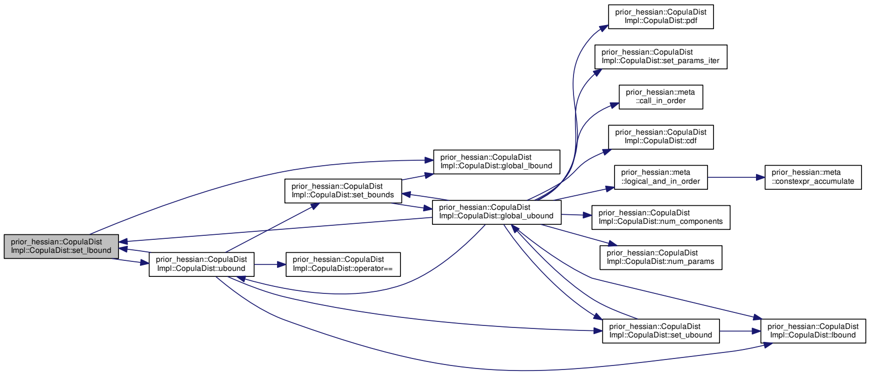
7.11.4.32 template< template< int > class CopulaTemplate, class... MarginalDistTs> template< class Vec > void prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_lbound (const Vec & *lbound*)

Definition at line 295 of file CopulaDist.h.

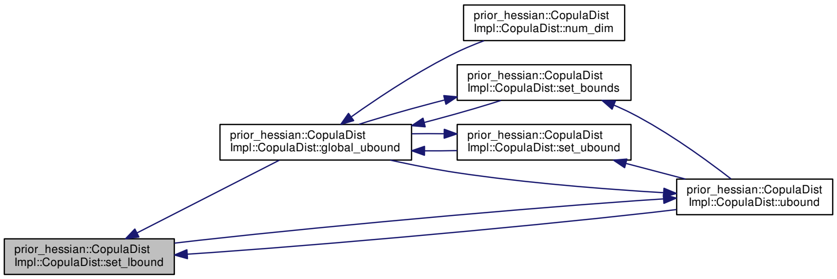
References prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_lbound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::ubound().

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::ubound().

Here is the call graph for this function:


prior_hessian::CopulaDist
Impl::CopulaDist::pdf
prior_hessian::CopulaDist
Impl::CopulaDist::set_params_iter
prior_hessian::meta
::call_in_order
prior_hessian::CopulaDist
Impl::CopulaDist::cdf
prior_hessian::CopulaDist
Impl::CopulaDist::global_lbound
prior_hessian::meta
::logical_and_in_order
prior_hessian::meta
::constexpr_accumulate
prior_hessian::CopulaDist
Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist
Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::num_components
prior_hessian::CopulaDist
Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist
Impl::CopulaDist::ubound
prior_hessian::CopulaDist
Impl::CopulaDist::operator==
prior_hessian::CopulaDist
Impl::CopulaDist::num_params
prior_hessian::CopulaDist
Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist
Impl::CopulaDist::lbound

Here is the caller graph for this function:

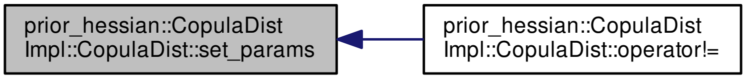

prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound

7.11.4.33 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec > void prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_params (const Vec & *params*)

Definition at line 359 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:

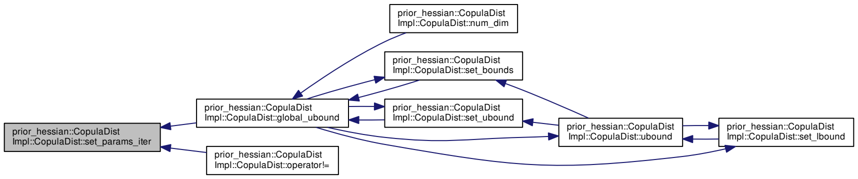

prior_hessian::CopulaDist Impl::CopulaDist::set_params
prior_hessian::CopulaDist Impl::CopulaDist::operator!=

7.11.4.34 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class IterT > void prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_params_iter (IterT & *params*)

Definition at line 375 of file CopulaDist.h.

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator!=().

Here is the caller graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_params_iter
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::operator!=

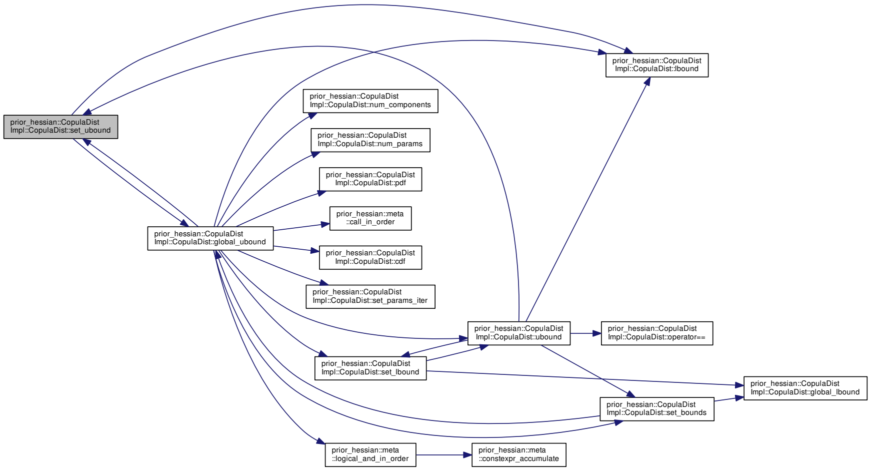
7.11.4.35 template<template< int > class CopulaTemplate, class... MarginalDistTs> template<class Vec > void **prior_hessian::CopulaDistImpl::CopulaDist**< CopulaTemplate, MarginalDistTs >::set_ubound (const Vec & *ubound*)

Definition at line 313 of file CopulaDist.h.

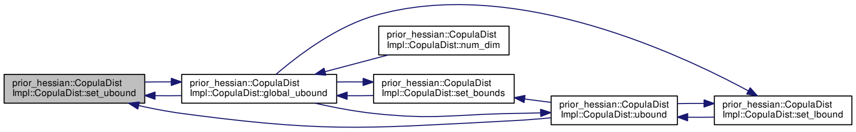
References prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::lbound().

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::ubound().

Here is the call graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::lbound
prior_hessian::CopulaDist Impl::CopulaDist::num_components
prior_hessian::CopulaDist Impl::CopulaDist::num_params
prior_hessian::CopulaDist Impl::CopulaDist::pdf
prior_hessian::meta ::call_in_order
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::cdf
prior_hessian::CopulaDist Impl::CopulaDist::set_params_iter
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::operator==
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::global_lbound
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::meta ::logical_and_in_order
prior_hessian::meta ::constexpr_accumulate

Here is the caller graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound

7.11.4.36 template<template< int > class CopulaTemplate, class... MarginalDistTs> NdimVecT **prior_hessian::CopulaDistImpl::CopulaDist**< CopulaTemplate, MarginalDistTs >::ubound ( ) const [inline]

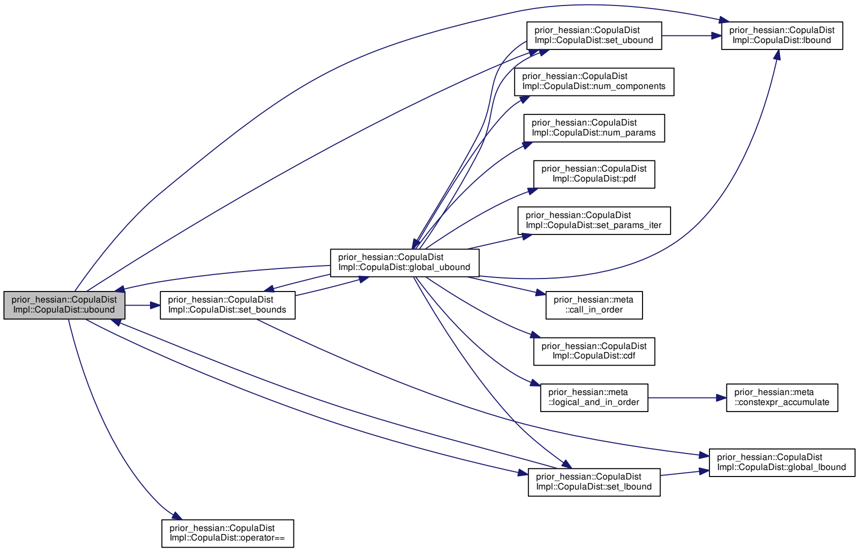
Definition at line 68 of file CopulaDist.h.

References prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::lbound(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::operator==(), prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_bounds(), prior_hessian::CopulaDistImpl::CopulaDist<

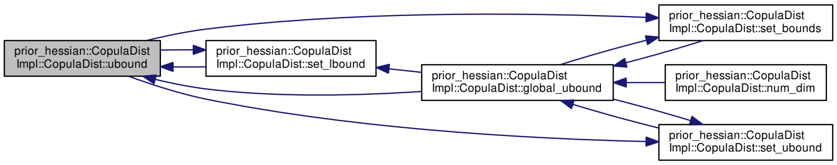
CopulaTemplate, MarginalDistTs >::set_lbound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_ubound().

Referenced by prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::global_ubound(), and prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >::set_lbound().

Here is the call graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::set_ubound
prior_hessian::CopulaDist Impl::CopulaDist::lbound
prior_hessian::CopulaDist Impl::CopulaDist::num_components
prior_hessian::CopulaDist Impl::CopulaDist::num_params
prior_hessian::CopulaDist Impl::CopulaDist::pdf
prior_hessian::CopulaDist Impl::CopulaDist::set_params_iter
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::meta ::call_in_order
prior_hessian::CopulaDist Impl::CopulaDist::cdf
prior_hessian::meta ::logical_and_in_order
prior_hessian::meta ::constexpr_accumulate
prior_hessian::CopulaDist Impl::CopulaDist::global_lbound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::operator==

Here is the caller graph for this function:


prior_hessian::CopulaDist Impl::CopulaDist::ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_lbound
prior_hessian::CopulaDist Impl::CopulaDist::global_ubound
prior_hessian::CopulaDist Impl::CopulaDist::set_bounds
prior_hessian::CopulaDist Impl::CopulaDist::num_dim
prior_hessian::CopulaDist Impl::CopulaDist::set_ubound

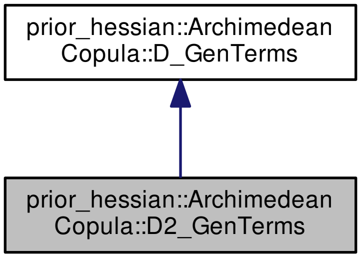
The documentation for this class was generated from the following file:

- CopulaDist.h

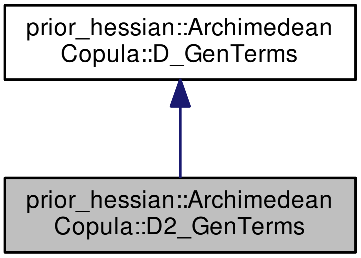
7.12 prior_hessian::ArchimedeanCopula::D2_GenTerms Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula::D2_GenTerms:



Collaboration diagram for prior_hessian::ArchimedeanCopula::D2_GenTerms:



Public Attributes

- double xi_n_t
- double log_dn_gen_t
- double eta_n_np1_t

7.12.1 Detailed Description

Definition at line 17 of file ArchimedeanCopula.h.

7.12.2 Member Data Documentation

7.12.2.1 double prior_hessian::ArchimedeanCopula::D_GenTerms::eta_n_np1_t [inherited]

Definition at line 15 of file ArchimedeanCopula.h.

7.12.2.2 double prior_hessian::ArchimedeanCopula::D_GenTerms::log_dn_gen_t [inherited]

Definition at line 14 of file ArchimedeanCopula.h.

7.12.2.3 double prior_hessian::ArchimedeanCopula::D2_GenTerms::xi_n_t

Definition at line 18 of file ArchimedeanCopula.h.

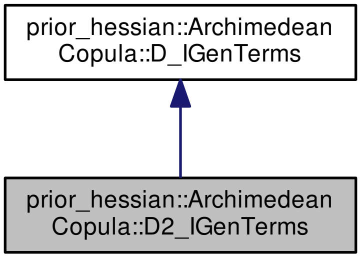
The documentation for this struct was generated from the following file:

- ArchimedeanCopula.h

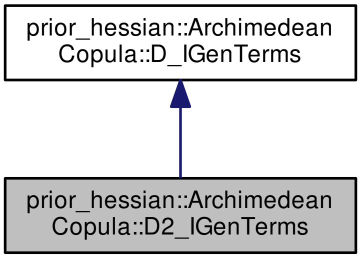
7.13 prior_hessian::ArchimedeanCopula::D2_lGenTerms Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula::D2_lGenTerms:



Collaboration diagram for prior_hessian::ArchimedeanCopula::D2_lGenTerms:



Public Attributes

- double d2_igen_ui
- double ixi_1_ui
- double d1_igen_ui
- double ieta_21_ui

7.13.1 Detailed Description

Definition at line 25 of file ArchimedeanCopula.h.

7.13.2 Member Data Documentation

7.13.2.1 double prior_hessian::ArchimedeanCopula::D_lGenTerms::d1_igen_ui [inherited]

Definition at line 22 of file ArchimedeanCopula.h.

7.13.2.2 double prior_hessian::ArchimedeanCopula::D2_lGenTerms::d2_igen_ui

Definition at line 26 of file ArchimedeanCopula.h.

7.13.2.3 double prior_hessian::ArchimedeanCopula::D_lGenTerms::ieta_21_ui [inherited]

Definition at line 23 of file ArchimedeanCopula.h.

7.13.2.4 double prior_hessian::ArchimedeanCopula::D2_lGenTerms::ixi_1_ui

Definition at line 27 of file ArchimedeanCopula.h.

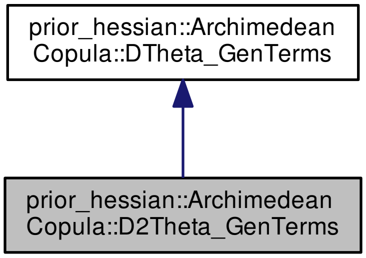
The documentation for this struct was generated from the following file:

- ArchimedeanCopula.h

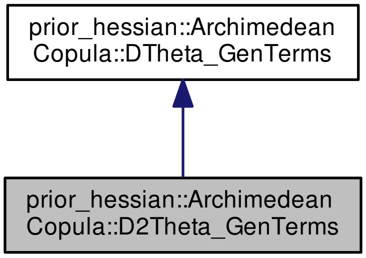
7.14 prior_hessian::ArchimedeanCopula::D2Theta_GenTerms Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula::D2Theta_GenTerms:



Collaboration diagram for prior_hessian::ArchimedeanCopula::D2Theta_GenTerms:



Public Attributes

- double xi_0n_t
- double log_dn_gen_t
- double eta_0n_1n_t

7.14.1 Detailed Description

Definition at line 34 of file ArchimedeanCopula.h.

7.14.2 Member Data Documentation

7.14.2.1 double prior_hessian::ArchimedeanCopula::DTheta_GenTerms::eta_0n_1n_t [inherited]

Definition at line 32 of file ArchimedeanCopula.h.

7.14.2.2 double prior_hessian::ArchimedeanCopula::DTheta_GenTerms::log_dn_gen_t [inherited]

Definition at line 31 of file ArchimedeanCopula.h.

7.14.2.3 double prior_hessian::ArchimedeanCopula::D2Theta_GenTerms::xi_0n_t

Definition at line 35 of file ArchimedeanCopula.h.

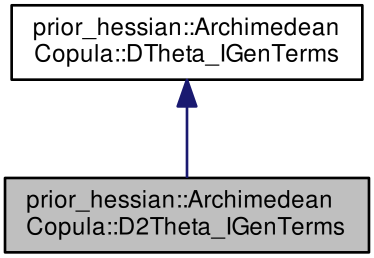
The documentation for this struct was generated from the following file:

- ArchimedeanCopula.h

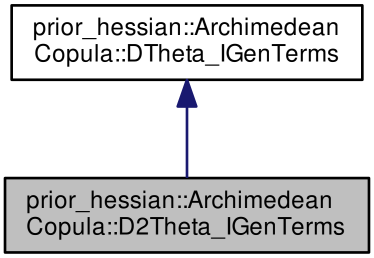
7.15 prior_hessian::ArchimedeanCopula::D2Theta_IGenTerms Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula::D2Theta_IGenTerms:


prior_hessian::Archimedean
Copula::DTheta_IGenTerms
prior_hessian::Archimedean
Copula::D2Theta_IGenTerms

Collaboration diagram for prior_hessian::ArchimedeanCopula::D2Theta_IGenTerms:


prior_hessian::Archimedean
Copula::DTheta_IGenTerms
prior_hessian::Archimedean
Copula::D2Theta_IGenTerms

Public Attributes

- double sum_d20_igen_u = 0
- double sum_ixi_01_u = 0
- double sum_log_d1_igen_u = 0
- double sum_d10_igen_u = 0
- double sum_ieta_01_11_u = 0

7.15.1 Detailed Description

Definition at line 43 of file ArchimedeanCopula.h.

7.15.2 Member Data Documentation

7.15.2.1 double prior_hessian::ArchimedeanCopula::DTheta_IGenTerms::sum_d10_igen_u = 0 [inherited]

Definition at line 40 of file ArchimedeanCopula.h.

7.15.2.2 double prior_hessian::ArchimedeanCopula::D2Theta_IGenTerms::sum_d20_igen_u = 0

Definition at line 44 of file ArchimedeanCopula.h.

7.15.2.3 double prior_hessian::ArchimedeanCopula::DTheta_IGenTerms::sum_ieta_01_11_u = 0 [inherited]

Definition at line 41 of file ArchimedeanCopula.h.

7.15.2.4 double prior_hessian::ArchimedeanCopula::D2Theta_IGenTerms::sum_ixi_01_u = 0

Definition at line 45 of file ArchimedeanCopula.h.

7.15.2.5 double prior_hessian::ArchimedeanCopula::DTheta_IGenTerms::sum_log_d1_igen_u = 0 [inherited]

Definition at line 39 of file ArchimedeanCopula.h.

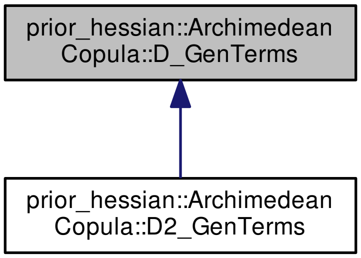
The documentation for this struct was generated from the following file:

- ArchimedeanCopula.h

7.16 prior_hessian::ArchimedeanCopula::D_GenTerms Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula::D_GenTerms:



Public Attributes

- double log_dn_gen_t
- double eta_n_np1_t

7.16.1 Detailed Description

Definition at line 13 of file ArchimedeanCopula.h.

7.16.2 Member Data Documentation

7.16.2.1 double prior_hessian::ArchimedeanCopula::D_GenTerms::eta_n_np1_t

Definition at line 15 of file ArchimedeanCopula.h.

7.16.2.2 double prior_hessian::ArchimedeanCopula::D_GenTerms::log_dn_gen_t

Definition at line 14 of file ArchimedeanCopula.h.

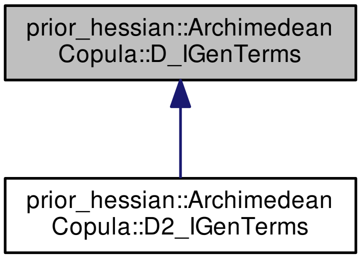
The documentation for this struct was generated from the following file:

- ArchimedeanCopula.h

7.17 prior_hessian::ArchimedeanCopula::D_IGenTerms Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula::D_IGenTerms:



Public Attributes

- double d1_igen_ui
- double ieta_21_ui

7.17.1 Detailed Description

Definition at line 21 of file ArchimedeanCopula.h.

7.17.2 Member Data Documentation

7.17.2.1 double prior_hessian::ArchimedeanCopula::D_IGenTerms::d1_igen_ui

Definition at line 22 of file ArchimedeanCopula.h.

7.17.2.2 double prior_hessian::ArchimedeanCopula::D_lGenTerms::ieta_21_ui

Definition at line 23 of file ArchimedeanCopula.h.

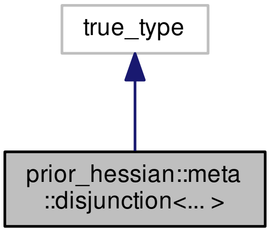
The documentation for this struct was generated from the following file:

- ArchimedeanCopula.h

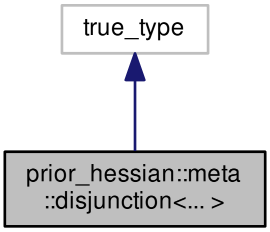
7.18 prior_hessian::meta::disjunction< ... > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Inheritance diagram for prior_hessian::meta::disjunction< ... >:



Collaboration diagram for prior_hessian::meta::disjunction< ... >:



7.18.1 Detailed Description

template<class...>
struct prior_hessian::meta::disjunction<... >

Definition at line 72 of file Meta.h.

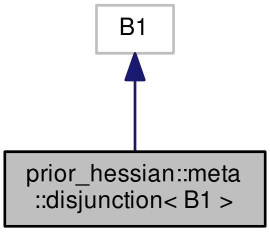
The documentation for this struct was generated from the following file:

- Meta.h

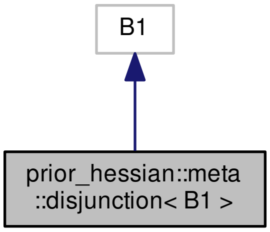
7.19 prior_hessian::meta::disjunction< B1 > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Inheritance diagram for prior_hessian::meta::disjunction< B1 >:



Collaboration diagram for prior_hessian::meta::disjunction< B1 >:



7.19.1 Detailed Description

template<class B1>
struct prior_hessian::meta::disjunction< B1 >

Definition at line 73 of file Meta.h.

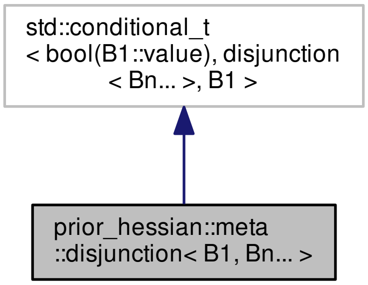
The documentation for this struct was generated from the following file:

- Meta.h

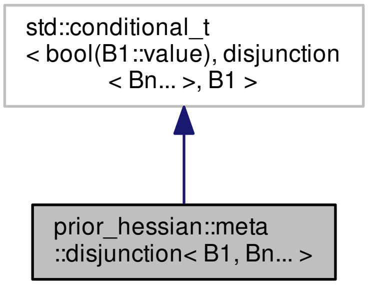
7.20 prior_hessian::meta::disjunction< B1, Bn... > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
Meta.h>
```

Inheritance diagram for prior_hessian::meta::disjunction< B1, Bn... >:



Collaboration diagram for prior_hessian::meta::disjunction< B1, Bn... >:



7.20.1 Detailed Description

template< class B1, class... Bn>
struct prior_hessian::meta::disjunction< B1, Bn... >

Definition at line 75 of file Meta.h.

The documentation for this struct was generated from the following file:

- Meta.h

7.21 prior_hessian::detail::dist_adaptor_traits< Dist > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
BoundsAdaptedDist.h>
```

Public Types

- using bounds_adapted_dist = void

Static Public Attributes

- static constexpr bool adaptable_bounds = false

7.21.1 Detailed Description

template< class Dist>
class prior_hessian::detail::dist_adaptor_traits< Dist >

Definition at line 42 of file BoundsAdaptedDist.h.

7.21.2 Member Typedef Documentation

7.21.2.1 template< class Dist> using prior_hessian::detail::dist_adaptor_traits< Dist >::bounds_adapted_dist = void

Definition at line 44 of file BoundsAdaptedDist.h.

7.21.3 Member Data Documentation

7.21.3.1 template<class Dist> constexpr bool prior_hessian::detail::dist_adaptor_traits< Dist >::adaptable_bounds = false [static]

Definition at line 45 of file BoundsAdaptedDist.h.

The documentation for this class was generated from the following file:

- BoundsAdaptedDist.h

7.22 prior_hessian::detail::dist_adaptor_traits< CopulaDistImpl::CopulaDist< CopulaTemplate, DistTs... > > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
CopulaDist.h>
```

Public Types

- using bounds_adapted_dist = CopulaDistImpl::CopulaDist< CopulaTemplate, DistTs... >

Static Public Attributes

- static constexpr bool adaptable_bounds = true

7.22.1 Detailed Description

template<template< int > class CopulaTemplate, class... DistTs>
struct prior_hessian::detail::dist_adaptor_traits< CopulaDistImpl::CopulaDist< CopulaTemplate, DistTs... > >

Definition at line 198 of file CopulaDist.h.

7.22.2 Member Typedef Documentation

7.22.2.1 template<template< int > class CopulaTemplate, class... DistTs> using prior_hessian::detail::dist_adaptor_traits< CopulaDistImpl::CopulaDist< CopulaTemplate, DistTs... > >::bounds_adapted_dist = CopulaDistImpl::CopulaDist<CopulaTemplate, DistTs...>

Definition at line 200 of file CopulaDist.h.

7.22.3 Member Data Documentation

7.22.3.1 template<template< int > class CopulaTemplate, class... DistTs> constexpr bool **prior_hessian::detail::dist_adaptor_traits< CopulaDistImpl::CopulaDist< CopulaTemplate, DistTs... > >::adaptable_bounds** = true [static]

Definition at line 201 of file CopulaDist.h.

The documentation for this struct was generated from the following file:

- CopulaDist.h

7.23 prior_hessian::detail::dist_adaptor_traits< GammaDist > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/TruncatedGammaDist.h>
```

Public Types

- using bounds_adapted_dist = TruncatedGammaDist

Static Public Attributes

- static constexpr bool adaptable_bounds = false

7.23.1 Detailed Description

template<>
struct prior_hessian::detail::dist_adaptor_traits< GammaDist >

Definition at line 28 of file TruncatedGammaDist.h.

7.23.2 Member Typedef Documentation

7.23.2.1 using **prior_hessian::detail::dist_adaptor_traits< GammaDist >::bounds_adapted_dist = TruncatedGammaDist**

Definition at line 30 of file TruncatedGammaDist.h.

7.23.3 Member Data Documentation

7.23.3.1 constexpr bool **prior_hessian::detail::dist_adaptor_traits< GammaDist >**::adaptable_bounds = false [static]

Definition at line 31 of file TruncatedGammaDist.h.

The documentation for this struct was generated from the following file:

- TruncatedGammaDist.h

7.24 prior_hessian::detail::dist_adaptor_traits< MultivariateNormalDist< Ndim > > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedMultivariateNormalDist.h>
```

Public Types

- using bounds_adapted_dist = TruncatedMultivariateNormalDist< Ndim >

Static Public Attributes

- static constexpr bool adaptable_bounds = false

7.24.1 Detailed Description

template<IdxT Ndim>
struct prior_hessian::detail::dist_adaptor_traits< MultivariateNormalDist< Ndim > >

Definition at line 33 of file TruncatedMultivariateNormalDist.h.

7.24.2 Member Typedef Documentation

7.24.2.1 template<IdxT Ndim> using **prior_hessian::detail::dist_adaptor_traits< MultivariateNormalDist< Ndim > >::bounds_adapted_dist = TruncatedMultivariateNormalDist**<Ndim>

Definition at line 35 of file TruncatedMultivariateNormalDist.h.

7.24.3 Member Data Documentation

7.24.3.1 template<IdxT Ndim> constexpr bool prior_hessian::detail::dist_adaptor_traits< MultivariateNormalDist< Ndim > >::adaptable_bounds = false [static]

Definition at line 36 of file TruncatedMultivariateNormalDist.h.

The documentation for this struct was generated from the following file:

- TruncatedMultivariateNormalDist.h

7.25 prior_hessian::detail::dist_adaptor_traits< NormalDist > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedNormalDist.h>
```

Public Types

- using bounds_adapted_dist = TruncatedNormalDist

Static Public Attributes

- static constexpr bool adaptable_bounds = false

7.25.1 Detailed Description

template<>
struct prior_hessian::detail::dist_adaptor_traits< NormalDist >

Definition at line 30 of file TruncatedNormalDist.h.

7.25.2 Member Typedef Documentation

7.25.2.1 using prior_hessian::detail::dist_adaptor_traits< NormalDist >::bounds_adapted_dist = TruncatedNormalDist

Definition at line 32 of file TruncatedNormalDist.h.

7.25.3 Member Data Documentation

7.25.3.1 constexpr bool **prior_hessian::detail::dist_adaptor_traits< NormalDist >**::adaptable_bounds = false [static]

Definition at line 33 of file TruncatedNormalDist.h.

The documentation for this struct was generated from the following file:

- TruncatedNormalDist.h

7.26 prior_hessian::detail::dist_adaptor_traits< ParetoDist > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedParetoDist.h>
```

Public Types

- using bounds_adapted_dist = TruncatedParetoDist

Static Public Attributes

- static constexpr bool adaptable_bounds = false

7.26.1 Detailed Description

template<>
struct prior_hessian::detail::dist_adaptor_traits< ParetoDist >

Definition at line 28 of file TruncatedParetoDist.h.

7.26.2 Member Typedef Documentation

7.26.2.1 using **prior_hessian::detail::dist_adaptor_traits< ParetoDist >::bounds_adapted_dist = TruncatedParetoDist**

Definition at line 30 of file TruncatedParetoDist.h.

7.26.3 Member Data Documentation

7.26.3.1 constexpr bool prior_hessian::detail::dist_adaptor_traits< ParetoDist >::adaptable_bounds = false [static]

Definition at line 31 of file TruncatedParetoDist.h.

The documentation for this struct was generated from the following file:

- TruncatedParetoDist.h

7.27 prior_hessian::detail::dist_adaptor_traits< ScaledSymmetricBetaDist > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ScaledSymmetricBetaDist.h>
```

Public Types

- using bounds_adapted_dist = ScaledSymmetricBetaDist

Static Public Attributes

- static constexpr bool adaptable_bounds = true

7.27.1 Detailed Description

template<>
struct prior_hessian::detail::dist_adaptor_traits< ScaledSymmetricBetaDist >

Definition at line 35 of file ScaledSymmetricBetaDist.h.

7.27.2 Member Typedef Documentation

7.27.2.1 using prior_hessian::detail::dist_adaptor_traits< ScaledSymmetricBetaDist >::bounds_adapted_dist = ScaledSymmetricBetaDist

Definition at line 37 of file ScaledSymmetricBetaDist.h.

7.27.3 Member Data Documentation

7.27.3.1 constexpr bool prior_hessian::detail::dist_adaptor_traits< ScaledSymmetricBetaDist >::adaptable_bounds = true [static]

Definition at line 38 of file ScaledSymmetricBetaDist.h.

The documentation for this struct was generated from the following file:

- ScaledSymmetricBetaDist.h

7.28 prior_hessian::detail::dist_adaptor_traits< SymmetricBetaDist > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ScaledSymmetricBetaDist.h>
```

Public Types

- using bounds_adapted_dist = ScaledSymmetricBetaDist

Static Public Attributes

- static constexpr bool adaptable_bounds = false

7.28.1 Detailed Description

template<>
struct prior_hessian::detail::dist_adaptor_traits< SymmetricBetaDist >

Definition at line 28 of file ScaledSymmetricBetaDist.h.

7.28.2 Member Typedef Documentation

7.28.2.1 using prior_hessian::detail::dist_adaptor_traits< SymmetricBetaDist >::bounds_adapted_dist = ScaledSymmetricBetaDist

Definition at line 30 of file ScaledSymmetricBetaDist.h.

7.28.3 Member Data Documentation

7.28.3.1 constexpr bool prior_hessian::detail::dist_adaptor_traits< SymmetricBetaDist >::adaptable_bounds = false [static]

Definition at line 31 of file ScaledSymmetricBetaDist.h.

The documentation for this struct was generated from the following file:

- ScaledSymmetricBetaDist.h

7.29 prior_hessian::detail::dist_adaptor_traits< TruncatedGammaDist > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedGammaDist.h>
```

Public Types

- using bounds_adapted_dist = TruncatedGammaDist

Static Public Attributes

- static constexpr bool adaptable_bounds = true

7.29.1 Detailed Description

template<>
struct prior_hessian::detail::dist_adaptor_traits< TruncatedGammaDist >

Definition at line 35 of file TruncatedGammaDist.h.

7.29.2 Member Typedef Documentation

7.29.2.1 using prior_hessian::detail::dist_adaptor_traits< TruncatedGammaDist >::bounds_adapted_dist = TruncatedGammaDist

Definition at line 37 of file TruncatedGammaDist.h.

7.29.3 Member Data Documentation

7.29.3.1 constexpr bool prior_hessian::detail::dist_adaptor_traits< TruncatedGammaDist >::adaptable_bounds = true [static]

Definition at line 38 of file TruncatedGammaDist.h.

The documentation for this struct was generated from the following file:

- TruncatedGammaDist.h

7.30 prior_hessian::detail::dist_adaptor_traits< TruncatedMultivariateNormalDist< Ndim > > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedMultivariateNormalDist.h>
```

Public Types

- using bounds_adapted_dist = TruncatedMultivariateNormalDist< Ndim >

Static Public Attributes

- static constexpr bool adaptable_bounds = true

7.30.1 Detailed Description

template<IdxT Ndim>
struct prior_hessian::detail::dist_adaptor_traits< TruncatedMultivariateNormalDist< Ndim > >

Definition at line 40 of file TruncatedMultivariateNormalDist.h.

7.30.2 Member Typedef Documentation

7.30.2.1 template<IdxT Ndim> using prior_hessian::detail::dist_adaptor_traits< TruncatedMultivariateNormalDist< Ndim > >::bounds_adapted_dist = TruncatedMultivariateNormalDist<Ndim>

Definition at line 42 of file TruncatedMultivariateNormalDist.h.

7.30.3 Member Data Documentation

7.30.3.1 template<IdxT Ndim> constexpr bool **prior_hessian::detail::dist_adaptor_traits< TruncatedMultivariateNormalDist**< Ndim > >::adaptable_bounds = true [static]

Definition at line 43 of file TruncatedMultivariateNormalDist.h.

The documentation for this struct was generated from the following file:

- TruncatedMultivariateNormalDist.h

7.31 prior_hessian::detail::dist_adaptor_traits< TruncatedNormalDist > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
TruncatedNormalDist.h>
```

Public Types

- using bounds_adapted_dist = TruncatedNormalDist

Static Public Attributes

- static constexpr bool adaptable_bounds = true

7.31.1 Detailed Description

template<>
struct prior_hessian::detail::dist_adaptor_traits< TruncatedNormalDist >

Definition at line 37 of file TruncatedNormalDist.h.

7.31.2 Member Typedef Documentation

7.31.2.1 using **prior_hessian::detail::dist_adaptor_traits< TruncatedNormalDist >::bounds_adapted_dist** = **TruncatedNormalDist**

Definition at line 39 of file TruncatedNormalDist.h.

7.31.3 Member Data Documentation

7.31.3.1 constexpr bool prior_hessian::detail::dist_adaptor_traits< TruncatedNormalDist >::adaptable_bounds = true [static]

Definition at line 40 of file TruncatedNormalDist.h.

The documentation for this struct was generated from the following file:

- TruncatedNormalDist.h

7.32 prior_hessian::detail::dist_adaptor_traits< TruncatedParetoDist > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedParetoDist.h>
```

Public Types

- using bounds_adapted_dist = TruncatedParetoDist

Static Public Attributes

- static constexpr bool adaptable_bounds = true

7.32.1 Detailed Description

template<>
struct prior_hessian::detail::dist_adaptor_traits< TruncatedParetoDist >

Definition at line 35 of file TruncatedParetoDist.h.

7.32.2 Member Typedef Documentation

7.32.2.1 using prior_hessian::detail::dist_adaptor_traits< TruncatedParetoDist >::bounds_adapted_dist = TruncatedParetoDist

Definition at line 37 of file TruncatedParetoDist.h.

7.32.3 Member Data Documentation

7.32.3.1 constexpr bool prior_hessian::detail::dist_adaptor_traits< TruncatedParetoDist >::adaptable_bounds = true [static]

Definition at line 38 of file TruncatedParetoDist.h.

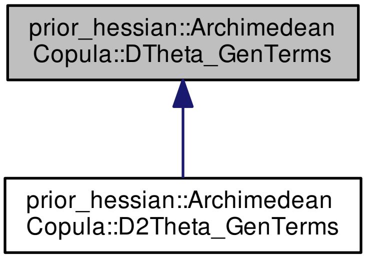
The documentation for this struct was generated from the following file:

- TruncatedParetoDist.h

7.33 prior_hessian::ArchimedeanCopula::DTheta_GenTerms Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula::DTheta_GenTerms:



Public Attributes

- double log_dn_gen_t
- double eta_0n_1n_t

7.33.1 Detailed Description

Definition at line 30 of file ArchimedeanCopula.h.

7.33.2 Member Data Documentation

7.33.2.1 double prior_hessian::ArchimedeanCopula::DTheta_GenTerms::eta_0n_1n_t

Definition at line 32 of file ArchimedeanCopula.h.

7.33.2.2 double prior_hessian::ArchimedeanCopula::DTheta_GenTerms::log_dn_gen_t

Definition at line 31 of file ArchimedeanCopula.h.

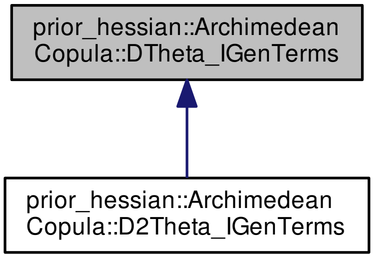
The documentation for this struct was generated from the following file:

- ArchimedeanCopula.h

7.34 prior_hessian::ArchimedeanCopula::DTheta_IGenTerms Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ArchimedeanCopula.h>
```

Inheritance diagram for prior_hessian::ArchimedeanCopula::DTheta_IGenTerms:


prior_hessian::Archimedean
Copula::DTheta_IGenTerms
prior_hessian::Archimedean
Copula::D2Theta_IGenTerms

Public Attributes

- double sum_log_d1_igen_u = 0
- double sum_d10_igen_u = 0
- double sum_ieta_01_11_u = 0

7.34.1 Detailed Description

Definition at line 38 of file ArchimedeanCopula.h.

7.34.2 Member Data Documentation

7.34.2.1 double prior_hessian::ArchimedeanCopula::DTheta_IGenTerms::sum_d10_igen_u = 0

Definition at line 40 of file ArchimedeanCopula.h.

7.34.2.2 double prior_hessian::ArchimedeanCopula::DTheta_lGenTerms::sum_ieta_01_11_u = 0

Definition at line 41 of file ArchimedeanCopula.h.

7.34.2.3 double prior_hessian::ArchimedeanCopula::DTheta_lGenTerms::sum_log_d1_igen_u = 0

Definition at line 39 of file ArchimedeanCopula.h.

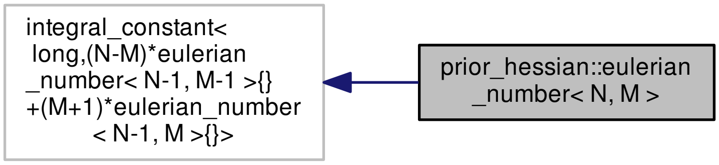
The documentation for this struct was generated from the following file:

- ArchimedeanCopula.h

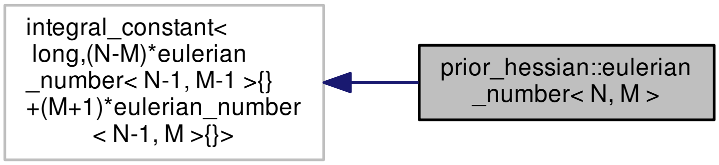
7.35 prior_hessian::eulerian_number< N, M > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
EulerianPolynomial.h>
```

Inheritance diagram for prior_hessian::eulerian_number< N, M >:


integral_constant< long,(N-M)*eulerian _number< N-1, M-1 >{} +(M+1)*eulerian_number < N-1, M >{}>
prior_hessian::eulerian _number< N, M >

Collaboration diagram for prior_hessian::eulerian_number< N, M >:


integral_constant< long,(N-M)*eulerian _number< N-1, M-1 >{} +(M+1)*eulerian_number < N-1, M >{}>
prior_hessian::eulerian _number< N, M >

7.35.1 Detailed Description

template<long N, long M>
struct prior_hessian::eulerian_number< N, M >

Definition at line 17 of file EulerianPolynomial.h.

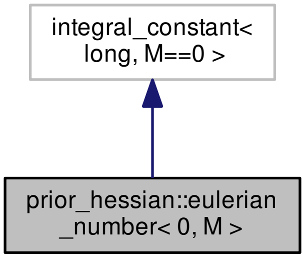
The documentation for this struct was generated from the following file:

- EulerianPolynomial.h

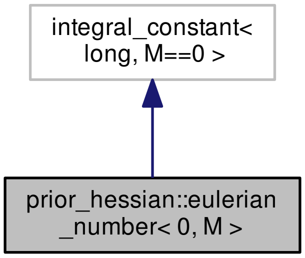
7.36 prior_hessian::eulerian_number< 0, M > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
EulerianPolynomial.h>
```

Inheritance diagram for prior_hessian::eulerian_number< 0, M >:


integral_constant< long, M==0 >
prior_hessian::eulerian _number< 0, M >

Collaboration diagram for prior_hessian::eulerian_number< 0, M >:


integral_constant< long, M==0 >
prior_hessian::eulerian _number< 0, M >

7.36.1 Detailed Description

template<long M>
struct prior_hessian::eulerian_number< 0, M >

Definition at line 20 of file EulerianPolynomial.h.

The documentation for this struct was generated from the following file:

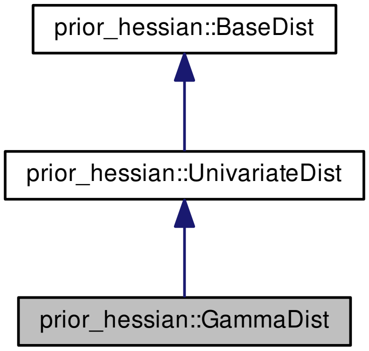
- EulerianPolynomial.h

7.37 prior_hessian::GammaDist Class Reference

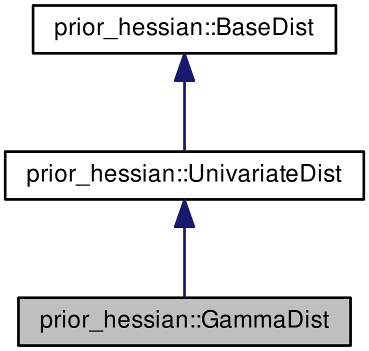
Gamma distribution.

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
GammaDist.h>
```

Inheritance diagram for prior_hessian::GammaDist:



Collaboration diagram for prior_hessian::GammaDist:



Public Types

- using NparamsVecT = arma::Col< double >::fixed< _num_params >

Public Member Functions

- GammaDist (double scale, double shape)
- GammaDist ()
- template<class Vec , meta::ConstructableIfNotSelfT< Vec, GammaDist > = true>
  GammaDist (const Vec &params)
- double get_param (int idx) const
- void set_param (int idx, double val)
- NparamsVecT params () const
- template<class Vec >
  void set_params (const Vec &p)
- void set_params (double scale, double shape)
- bool operator== (const GammaDist &o) const
- bool operator!= (const GammaDist &o) const
- double scale () const
- double shape () const
- void set_scale (double val)
- void set_shape (double val)
- double mean () const
- double median () const
- double cdf (double x) const
- double icdf (double u) const
- double pdf (double x) const
- double llh (double x) const
- double rllh (double x) const

- double grad (double x) const
- double grad2 (double x) const
- void grad_grad2_accumulate (double x, double &g, double &g2) const
- template<class RngT >
  double sample (RngT &rng) const
- template<class IterT >
  void set_params_iter (IterT &params)

Static Public Member Functions

- static constexpr IdxT num_params ()
- static constexpr double lbound ()
- static constexpr double ubound ()
- static bool in_bounds (double u)
- static const StringVecT & param_names ()
- static const NparamsVecT & param_lbound ()
- static const NparamsVecT & param_ubound ()
- static bool check_params (double shape, double scale)
- template<class Vec >
  static bool check_params (const Vec &params)
- template<class IterT >
  static bool check_params_iter (IterT &params)
- static constexpr IdxT num_dim ()

Static Protected Member Functions

- static void check_bounds (double lbound, double ubound)

7.37.1 Detailed Description

Gamma distribution.

Definition at line 22 of file GammaDist.h.

7.37.2 Member Typedef Documentation

7.37.2.1 using **prior_hessian::GammaDist::NparamsVecT** = arma::Col<double>::fixed<_num_params>

Definition at line 26 of file GammaDist.h.

7.37.3 Constructor & Destructor Documentation

7.37.3.1 prior_hessian::GammaDist::GammaDist (double *scale,* double *shape*)

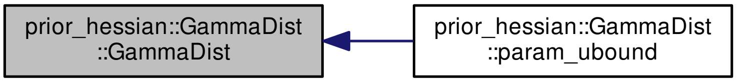
Definition at line 25 of file GammaDist.cpp.

7.37.3.2 prior_hessian::GammaDist::GammaDist ( ) [inline]

Definition at line 43 of file GammaDist.h.

Referenced by param_ubound().

Here is the caller graph for this function:

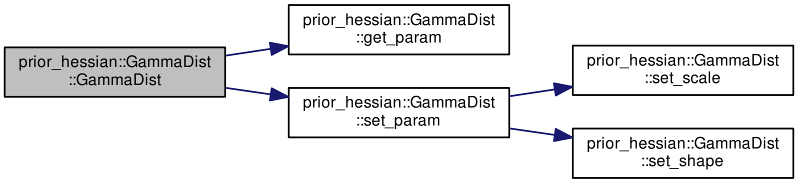

prior_hessian::GammaDist ::GammaDist
prior_hessian::GammaDist ::param_ubound

7.37.3.3 template<class Vec , meta::ConstructableIfNotSelfT< Vec, GammaDist > = true> prior_hessian::GammaDist::GammaDist (const Vec & *params*) [inline], [explicit]

Definition at line 45 of file GammaDist.h.

References get_param(), and set_param().

Here is the call graph for this function:


prior_hessian::GammaDist ::GammaDist
prior_hessian::GammaDist ::get_param
prior_hessian::GammaDist ::set_param
prior_hessian::GammaDist ::set_scale
prior_hessian::GammaDist ::set_shape

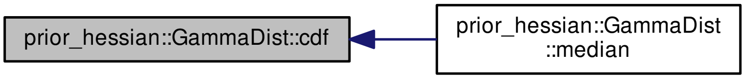
7.37.4 Member Function Documentation

7.37.4.1 double prior_hessian::GammaDist::cdf (double *x*) const

Definition at line 53 of file GammaDist.cpp.

Referenced by median().

Here is the caller graph for this function:

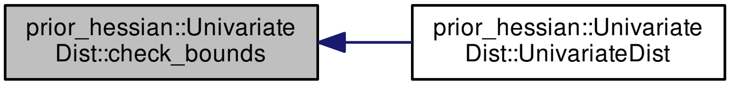

prior_hessian::GammaDist::cdf
prior_hessian::GammaDist ::median

7.37.4.2 void prior_hessian::UnivariateDist::check_bounds (double *lbound,* double *ubound*) [static], [protected], [inherited]

Definition at line 17 of file UnivariateDist.cpp.

Referenced by prior_hessian::UnivariateDist::UnivariateDist().

Here is the caller graph for this function:

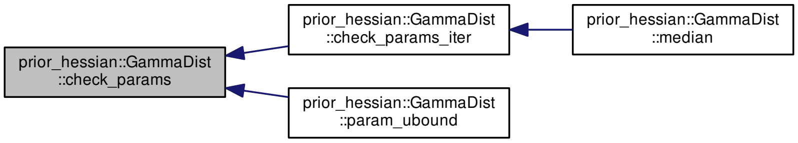

prior_hessian::Univariate Dist::check_bounds
prior_hessian::Univariate Dist::UnivariateDist

7.37.4.3 bool prior_hessian::GammaDist::check_params (double *shape,* double *scale*) [inline], [static]

Definition at line 107 of file GammaDist.h.

Referenced by check_params_iter(), and param_ubound().

Here is the caller graph for this function:

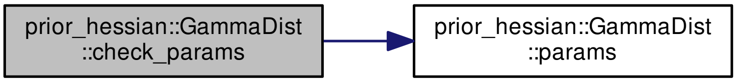

prior_hessian::GammaDist ::check_params
prior_hessian::GammaDist ::check_params_iter
prior_hessian::GammaDist ::median
prior_hessian::GammaDist ::param_ubound

7.37.4.4 template< class Vec > bool prior_hessian::GammaDist::check_params (const Vec & *params*) [static]

Definition at line 113 of file GammaDist.h.

References params().

Here is the call graph for this function:


prior_hessian::GammaDist ::check_params
prior_hessian::GammaDist ::params

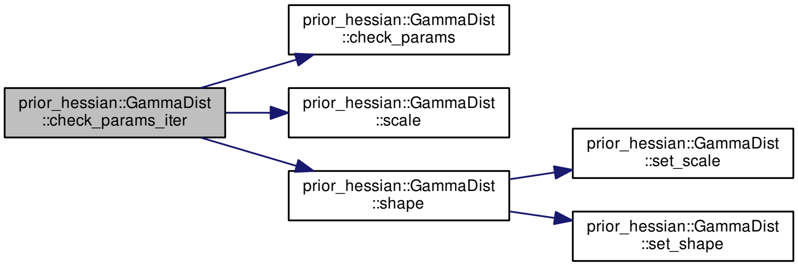
7.37.4.5 template< class IterT > bool prior_hessian::GammaDist::check_params_iter (IterT & *params*) [static]

Definition at line 183 of file GammaDist.h.

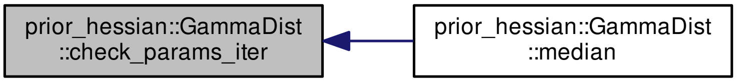
References check_params(), scale(), and shape().

Referenced by median().

Here is the call graph for this function:


prior_hessian::GammaDist ::check_params_iter
prior_hessian::GammaDist ::check_params
prior_hessian::GammaDist ::scale
prior_hessian::GammaDist ::shape
prior_hessian::GammaDist ::set_scale
prior_hessian::GammaDist ::set_shape

Here is the caller graph for this function:

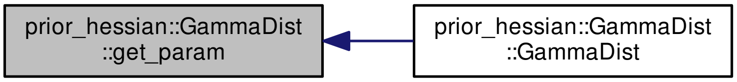

prior_hessian::GammaDist ::check_params_iter
prior_hessian::GammaDist ::median

7.37.4.6 double prior_hessian::GammaDist::get_param (int *idx*) const [inline]

Definition at line 119 of file GammaDist.h.

Referenced by GammaDist().

Here is the caller graph for this function:

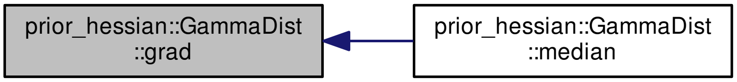


7.37.4.7 double prior_hessian::GammaDist::grad (double *x*) const [inline]

Definition at line 155 of file GammaDist.h.

Referenced by median().

Here is the caller graph for this function:

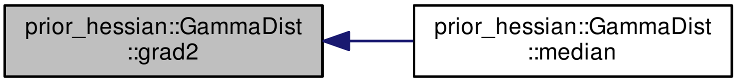


7.37.4.8 double prior_hessian::GammaDist::grad2 (double *x*) const [inline]

Definition at line 161 of file GammaDist.h.

Referenced by median().

Here is the caller graph for this function:

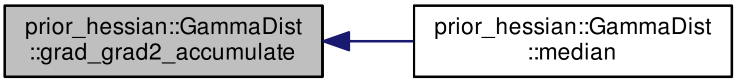


7.37.4.9 void prior_hessian::GammaDist::grad_grad2_accumulate (double *x*, double & *g*, double & *g2*) const [inline]

Definition at line 167 of file GammaDist.h.

Referenced by median().

Here is the caller graph for this function:

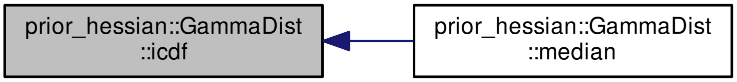


7.37.4.10 double prior_hessian::GammaDist::icdf (double *u*) const

Definition at line 58 of file GammaDist.cpp.

Referenced by median().

Here is the caller graph for this function:

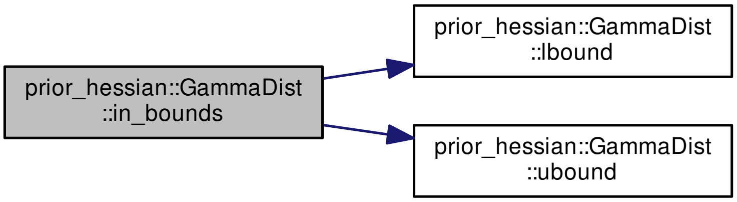


7.37.4.11 static bool prior_hessian::GammaDist::in_bounds (double *u*) [inline], [static]

Definition at line 32 of file GammaDist.h.

References lbound(), and ubound().

Here is the call graph for this function:

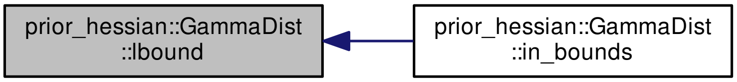

prior_hessian::GammaDist ::in_bounds
prior_hessian::GammaDist ::lbound
prior_hessian::GammaDist ::ubound

7.37.4.12 static constexpr double prior_hessian::GammaDist::lbound ( ) [inline], [static]

Definition at line 30 of file GammaDist.h.

Referenced by in_bounds().

Here is the caller graph for this function:


prior_hessian::GammaDist ::lbound
prior_hessian::GammaDist ::in_bounds

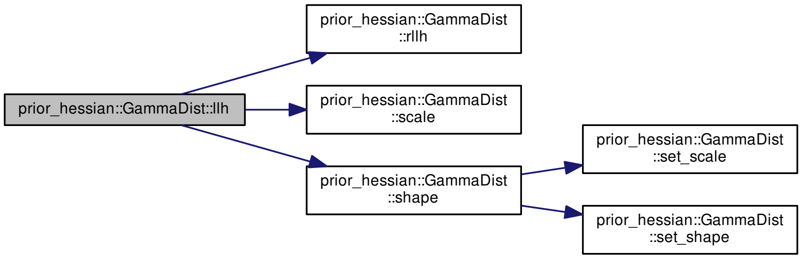
7.37.4.13 double prior_hessian::GammaDist::llh (double *x*) const

Definition at line 72 of file GammaDist.cpp.

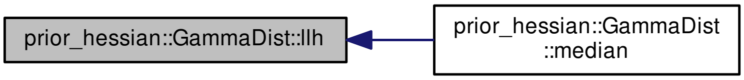
References rllh(), scale(), and shape().

Referenced by median().

Here is the call graph for this function:


prior_hessian::GammaDist::llh
prior_hessian::GammaDist ::rllh
prior_hessian::GammaDist ::scale
prior_hessian::GammaDist ::shape
prior_hessian::GammaDist ::set_scale
prior_hessian::GammaDist ::set_shape

Here is the caller graph for this function:


prior_hessian::GammaDist::llh
prior_hessian::GammaDist ::median

7.37.4.14 double prior_hessian::GammaDist::mean ( ) const [inline]

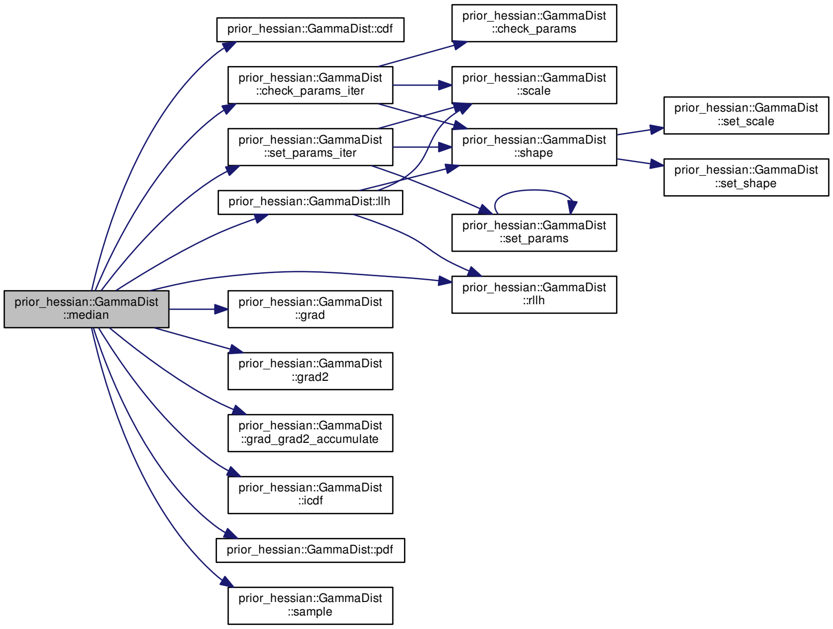
Definition at line 61 of file GammaDist.h.

7.37.4.15 double prior_hessian::GammaDist::median ( ) const [inline]

Definition at line 62 of file GammaDist.h.

References cdf(), check_params_iter(), grad(), grad2(), grad_grad2_accumulate(), icdf(), llh(), pdf(), rllh(), sample(), and set_params_iter().

Here is the call graph for this function:


prior_hessian::GammaDist ::median
prior_hessian::GammaDist::cdf
prior_hessian::GammaDist ::check_params_iter
prior_hessian::GammaDist ::set_params_iter
prior_hessian::GammaDist::llh
prior_hessian::GammaDist ::grad
prior_hessian::GammaDist ::grad2
prior_hessian::GammaDist ::grad_grad2_accumulate
prior_hessian::GammaDist ::icdf
prior_hessian::GammaDist::pdf
prior_hessian::GammaDist ::sample
prior_hessian::GammaDist ::check_params
prior_hessian::GammaDist ::scale
prior_hessian::GammaDist ::shape
prior_hessian::GammaDist ::set_params
prior_hessian::GammaDist ::rllh
prior_hessian::GammaDist ::set_scale
prior_hessian::GammaDist ::set_shape

7.37.4.16 static constexpr IdxT prior_hessian::UnivariateDist::num_dim ( ) [inline], [static], [inherited]

Definition at line 17 of file UnivariateDist.h.

7.37.4.17 static constexpr IdxT prior_hessian::GammaDist::num_params ( ) [inline], [static]

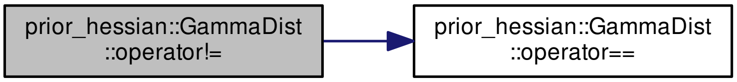
Definition at line 29 of file GammaDist.h.

7.37.4.18 bool prior_hessian::GammaDist::operator!= (const GammaDist & *o*) const [inline]

Definition at line 54 of file GammaDist.h.

References operator==().

Here is the call graph for this function:

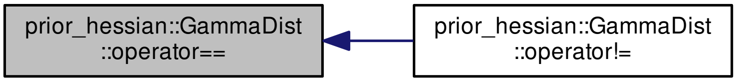

prior_hessian::GammaDist ::operator!=
prior_hessian::GammaDist ::operator==

7.37.4.19 bool prior_hessian::GammaDist::operator== (const GammaDist & *o*) const [inline]

Definition at line 53 of file GammaDist.h.

Referenced by operator!=().

Here is the caller graph for this function:



7.37.4.20 static const NparamsVecT& prior_hessian::GammaDist::param_lbound ( ) [inline], [static]

Definition at line 35 of file GammaDist.h.

7.37.4.21 static const StringVecT& prior_hessian::GammaDist::param_names ( ) [inline], [static]

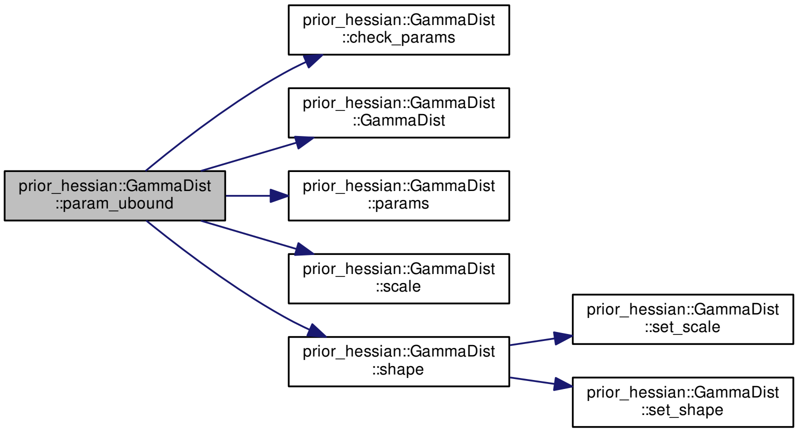
Definition at line 34 of file GammaDist.h.

7.37.4.22 static const NparamsVecT& prior_hessian::GammaDist::param_ubound ( ) [inline], [static]

Definition at line 36 of file GammaDist.h.

References check_params(), GammaDist(), params(), scale(), and shape().

Here is the call graph for this function:

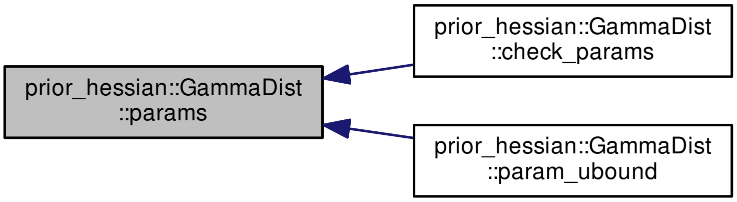


7.37.4.23 NparamsVecT prior_hessian::GammaDist::params ( ) const [inline]

Definition at line 49 of file GammaDist.h.

Referenced by check_params(), and param_ubound().

Here is the caller graph for this function:

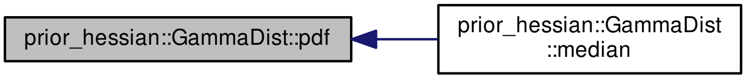


7.37.4.24 double prior_hessian::GammaDist::pdf (double *x*) const

Definition at line 65 of file GammaDist.cpp.

Referenced by median().

Here is the caller graph for this function:

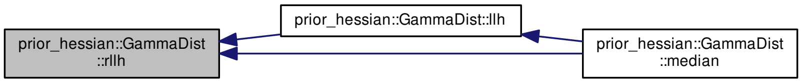


7.37.4.25 double prior_hessian::GammaDist::rllh (double *x*) const [inline]

Definition at line 149 of file GammaDist.h.

Referenced by llh(), and median().

Here is the caller graph for this function:

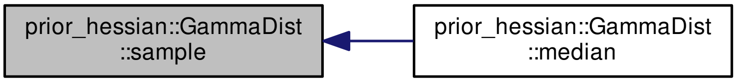


7.37.4.26 template<class RngT > double prior_hessian::GammaDist::sample (RngT & *rng*) const

Definition at line 175 of file GammaDist.h.

Referenced by median().

Here is the caller graph for this function:

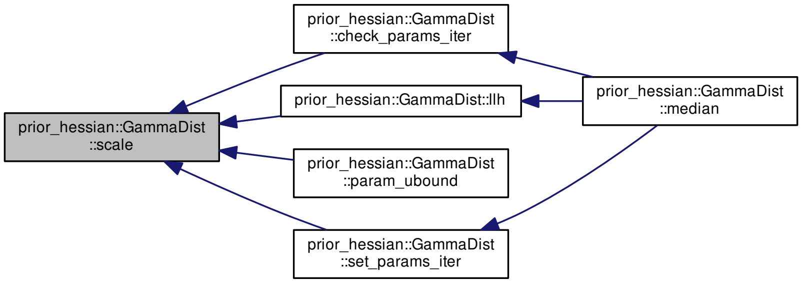

prior_hessian::GammaDist ::sample
prior_hessian::GammaDist ::median

7.37.4.27 double prior_hessian::GammaDist::scale ( ) const [inline]

Definition at line 56 of file GammaDist.h.

Referenced by check_params_iter(), llh(), param_ubound(), and set_params_iter().

Here is the caller graph for this function:


prior_hessian::GammaDist ::check_params_iter
prior_hessian::GammaDist::llh
prior_hessian::GammaDist ::scale
prior_hessian::GammaDist ::median
prior_hessian::GammaDist ::param_ubound
prior_hessian::GammaDist ::set_params_iter

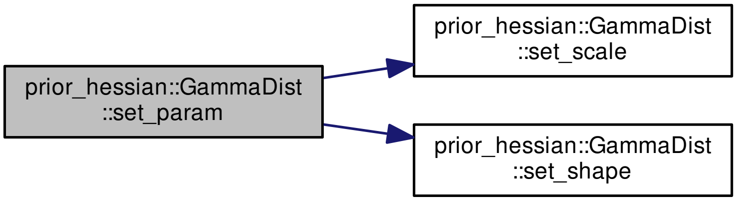
7.37.4.28 void prior_hessian::GammaDist::set_param (int *idx,* double *val*) [inline]

Definition at line 133 of file GammaDist.h.

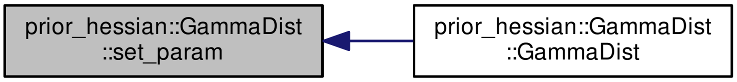
References set_scale(), and set_shape().

Referenced by GammaDist().

Here is the call graph for this function:


prior_hessian::GammaDist ::set_param
prior_hessian::GammaDist ::set_scale
prior_hessian::GammaDist ::set_shape

Here is the caller graph for this function:


prior_hessian::GammaDist ::set_param
prior_hessian::GammaDist ::GammaDist

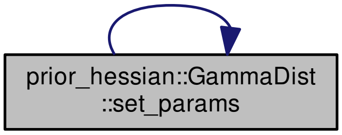
7.37.4.29 template<class Vec > void prior_hessian::GammaDist::set_params (const Vec & *p*) [inline]

Definition at line 51 of file GammaDist.h.

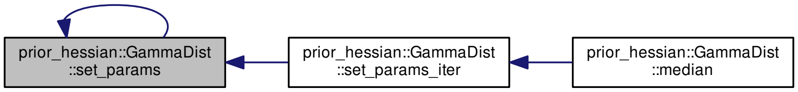
References set_params().

Referenced by set_params(), and set_params_iter().

Here is the call graph for this function:



Here is the caller graph for this function:


prior_hessian::GammaDist ::set_params
prior_hessian::GammaDist ::set_params_iter
prior_hessian::GammaDist ::median

7.37.4.30 void prior_hessian::GammaDist::set_params (double *scale,* double *shape*)

Definition at line 46 of file GammaDist.cpp.

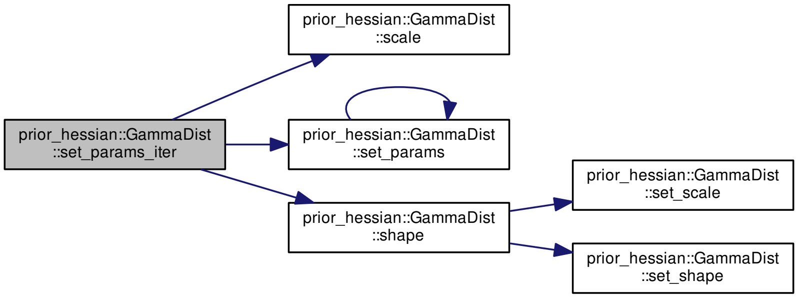
7.37.4.31 template<class IterT > void prior_hessian::GammaDist::set_params_iter (IterT & *params*)

Definition at line 191 of file GammaDist.h.

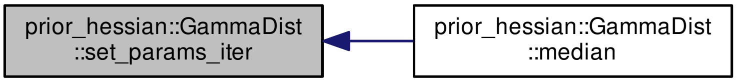
References scale(), set_params(), and shape().

Referenced by median().

Here is the call graph for this function:


prior_hessian::GammaDist ::scale
prior_hessian::GammaDist ::set_params_iter
prior_hessian::GammaDist ::set_params
prior_hessian::GammaDist ::set_scale
prior_hessian::GammaDist ::shape
prior_hessian::GammaDist ::set_shape

Here is the caller graph for this function:

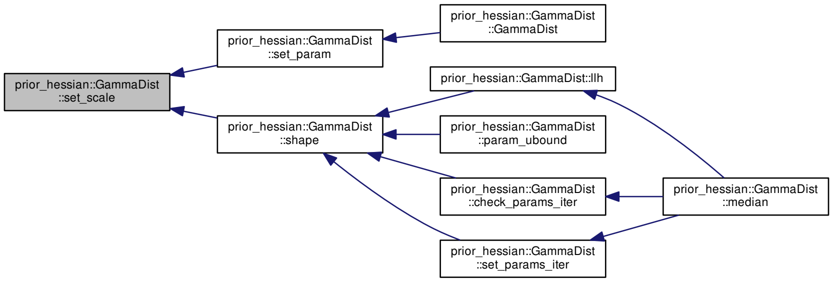

prior_hessian::GammaDist ::set_params_iter
prior_hessian::GammaDist ::median

7.37.4.32 void prior_hessian::GammaDist::set_scale (double *val*)

Definition at line 34 of file GammaDist.cpp.

Referenced by set_param(), and shape().

Here is the caller graph for this function:

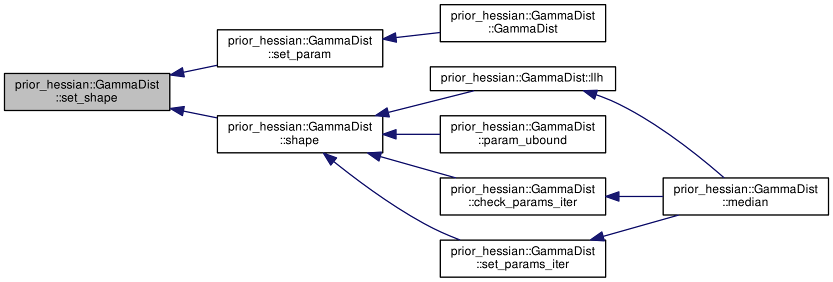

prior_hessian::GammaDist ::set_scale
prior_hessian::GammaDist ::set_param
prior_hessian::GammaDist ::shape
prior_hessian::GammaDist ::GammaDist
prior_hessian::GammaDist::llh
prior_hessian::GammaDist ::param_ubound
prior_hessian::GammaDist ::check_params_iter
prior_hessian::GammaDist ::set_params_iter
prior_hessian::GammaDist ::median

7.37.4.33 void prior_hessian::GammaDist::set_shape (double *val*)

Definition at line 40 of file GammaDist.cpp.

Referenced by set_param(), and shape().

Here is the caller graph for this function:


prior_hessian::GammaDist ::set_shape
prior_hessian::GammaDist ::set_param
prior_hessian::GammaDist ::shape
prior_hessian::GammaDist ::GammaDist
prior_hessian::GammaDist::llh
prior_hessian::GammaDist ::param_ubound
prior_hessian::GammaDist ::check_params_iter
prior_hessian::GammaDist ::set_params_iter
prior_hessian::GammaDist ::median

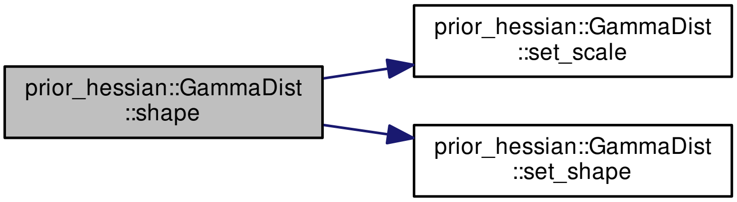
7.37.4.34 double prior_hessian::GammaDist::shape ( ) const [inline]

Definition at line 57 of file GammaDist.h.

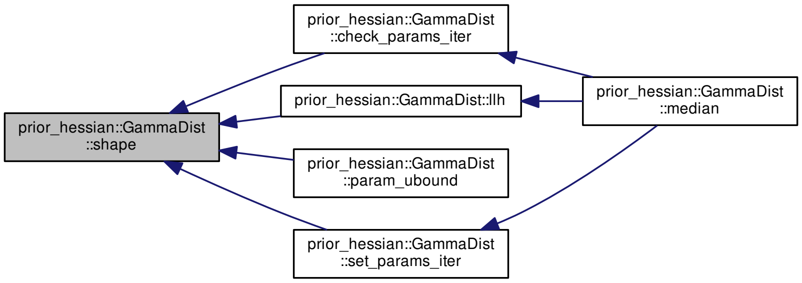
References set_scale(), and set_shape().

Referenced by check_params_iter(), llh(), param_ubound(), and set_params_iter().

Here is the call graph for this function:


prior_hessian::GammaDist ::shape
prior_hessian::GammaDist ::set_scale
prior_hessian::GammaDist ::set_shape

Here is the caller graph for this function:

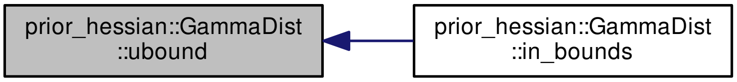

prior_hessian::GammaDist ::shape
prior_hessian::GammaDist ::check_params_iter
prior_hessian::GammaDist::llh
prior_hessian::GammaDist ::param_ubound
prior_hessian::GammaDist ::set_params_iter
prior_hessian::GammaDist ::median

7.37.4.35 static constexpr double prior_hessian::GammaDist::ubound ( ) [inline], [static]

Definition at line 31 of file GammaDist.h.

Referenced by in_bounds().

Here is the caller graph for this function:



The documentation for this class was generated from the following files:

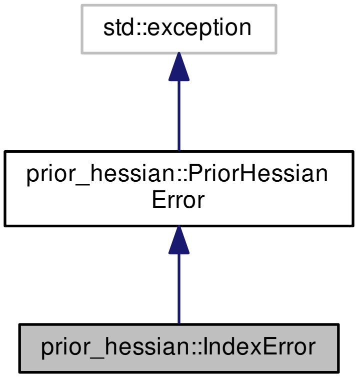
- GammaDist.h
- GammaDist.cpp

7.38 prior_hessian::IndexError Struct Reference

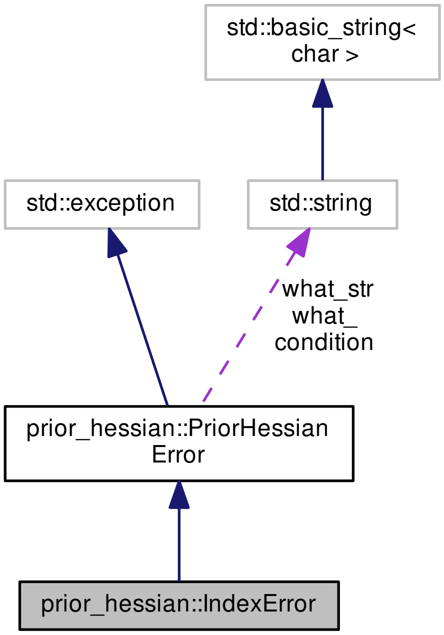
Indicates a index access was out of bounds.

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::IndexError:



Collaboration diagram for prior_hessian::IndexError:



Public Member Functions

- IndexError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.38.1 Detailed Description

Indicates a index access was out of bounds.

Definition at line 65 of file PriorHessianError.h.

7.38.2 Constructor & Destructor Documentation

7.38.2.1 prior_hessian::IndexError::IndexError (std::string *message*) [inline]

Definition at line 67 of file PriorHessianError.h.

7.38.3 Member Function Documentation

7.38.3.1 const char* prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.38.4 Member Data Documentation

7.38.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.38.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.38.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

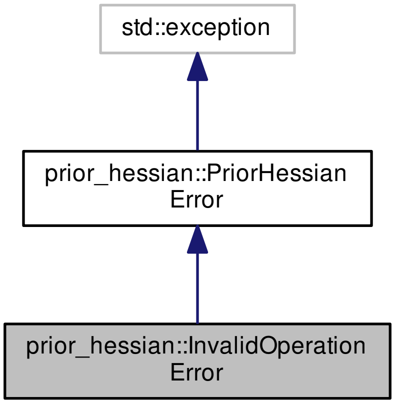
The documentation for this struct was generated from the following file:

- PriorHessianError.h

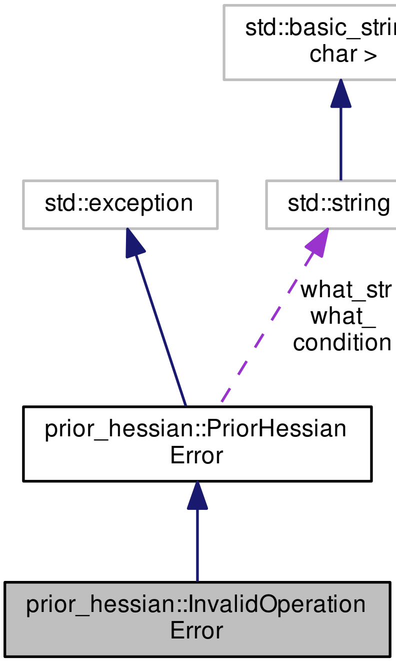
7.39 prior_hessian::InvalidOperationError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::InvalidOperationError:


std::exception
prior_hessian::PriorHessian Error
prior_hessian::InvalidOperation Error

Collaboration diagram for prior_hessian::InvalidOperationError:


std::basic_string< char >
std::exception
std::string
what_str
what_
condition
prior_hessian::PriorHessian Error
prior_hessian::InvalidOperation Error

Public Member Functions

- InvalidOperationError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.39.1 Detailed Description

Definition at line 70 of file PriorHessianError.h.

7.39.2 Constructor & Destructor Documentation

7.39.2.1 prior_hessian::InvalidOperationError::InvalidOperationError (std::string *message*) [inline]

Definition at line 72 of file PriorHessianError.h.

7.39.3 Member Function Documentation

7.39.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.39.4 Member Data Documentation

7.39.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.39.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.39.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

The documentation for this struct was generated from the following file:

- PriorHessianError.h

7.40 prior_hessian::meta::is_copula< T, U > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Static Public Attributes

- static constexpr bool value = decltype(is_copula::test(std::declval<U>()))::value

7.40.1 Detailed Description

template<template< template< int > class, class... > class T, typename U>
class prior_hessian::meta::is_copula< T, U >

Definition at line 102 of file Meta.h.

7.40.2 Member Data Documentation

7.40.2.1 template<template< template< int > class, class... > class T, typename U > constexpr bool prior_hessian::meta::is_copula< T, U >::value = decltype(is_copula::test(std::declval<U>()))::value [static]

Definition at line 107 of file Meta.h.

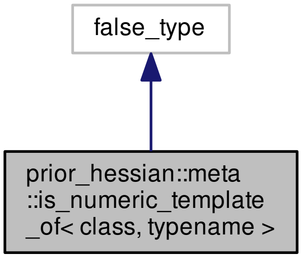
The documentation for this class was generated from the following file:

- Meta.h

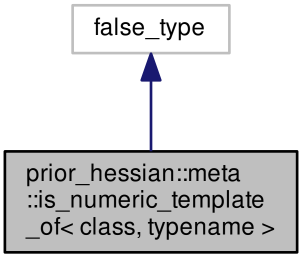
7.41 prior_hessian::meta::is_numeric_template_of< class, typename > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Inheritance diagram for prior_hessian::meta::is_numeric_template_of< class, typename >:



Collaboration diagram for prior_hessian::meta::is_numeric_template_of< class, typename >:



7.41.1 Detailed Description

template<template< int... > class, typename>
struct prior_hessian::meta::is_numeric_template_of< class, typename >

Definition at line 86 of file Meta.h.

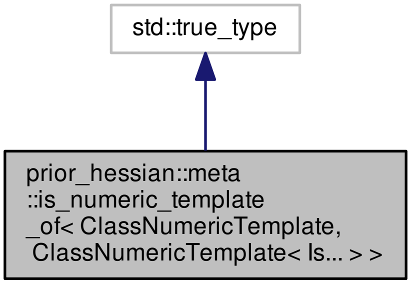
The documentation for this struct was generated from the following file:

- Meta.h

7.42 prior_hessian::meta::is_numeric_template_of< ClassNumericTemplate, ClassNumericTemplate< Is... > > Struct Template Reference

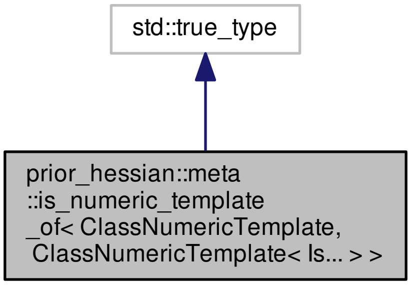
```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Inheritance diagram for prior_hessian::meta::is_numeric_template_of< ClassNumericTemplate, ClassNumeric↩ Template< Is... > >:



Collaboration diagram for prior_hessian::meta::is_numeric_template_of< ClassNumericTemplate, ClassNumeric↩

Template< Is... > >:


std::true_type
prior_hessian::meta ::is_numeric_template _of< ClassNumericTemplate, ClassNumericTemplate< Is... > >

7.42.1 Detailed Description

template<template< int... > class ClassNumericTemplate, int... Is>
struct prior_hessian::meta::is_numeric_template_of< ClassNumericTemplate, ClassNumericTemplate< Is... > >

Definition at line 89 of file Meta.h.

The documentation for this struct was generated from the following file:

- Meta.h

7.43 prior_hessian::meta::is_subclass_of_numeric_template< T, U > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Static Public Attributes

- static constexpr bool value = decltype(is_subclass_of_numeric_template::test(std::declval<U>()))::value

7.43.1 Detailed Description

template<template< int... > class T, typename U>
class prior_hessian::meta::is_subclass_of_numeric_template< T, U >

Definition at line 92 of file Meta.h.

7.43.2 Member Data Documentation

7.43.2.1 template<template< int... > class T, typename U> constexpr bool **prior_hessian::meta::is_subclass_of_numeric_template**< T, U >::value = decltype(is_subclass_of_numeric_template::test(std::declval<U>()))::value `[static]`

Definition at line 97 of file Meta.h.

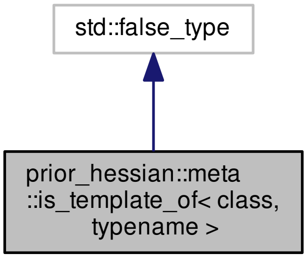
The documentation for this class was generated from the following file:

- Meta.h

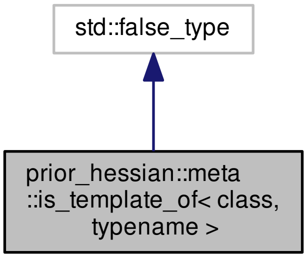
7.44 prior_hessian::meta::is_template_of< class, typename > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/Meta.h>
```

Inheritance diagram for prior_hessian::meta::is_template_of< class, typename >:



Collaboration diagram for prior_hessian::meta::is_template_of< class, typename >:



7.44.1 Detailed Description

template<template< typename... > class, typename>
struct prior_hessian::meta::is_template_of< class, typename >

Definition at line 79 of file Meta.h.

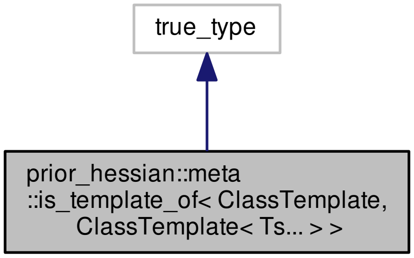
The documentation for this struct was generated from the following file:

- Meta.h

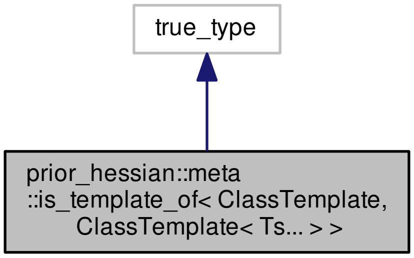
7.45 prior_hessian::meta::is_template_of< ClassTemplate, ClassTemplate< Ts... > > Struct Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
Meta.h>
```

Inheritance diagram for prior_hessian::meta::is_template_of< ClassTemplate, ClassTemplate< Ts... > >:



Collaboration diagram for prior_hessian::meta::is_template_of< ClassTemplate, ClassTemplate< Ts... > >:



7.45.1 Detailed Description

template<template< typename... > class ClassTemplate, typename... Ts>
struct prior_hessian::meta::is_template_of< ClassTemplate, ClassTemplate< Ts... > >

Definition at line 82 of file Meta.h.

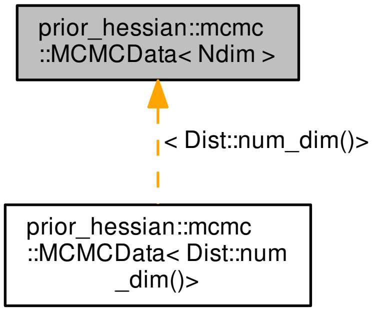
The documentation for this struct was generated from the following file:

- Meta.h

7.46 prior_hessian::mcmc::MCMCData< Ndim > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedMultivariateDist.h>
```

Inheritance diagram for prior_hessian::mcmc::MCMCData< Ndim >:



Public Types

- using NdimVecT = arma::Col< double >::fixed< Ndim >

Public Member Functions

- MCMCData ()
- MCMCData (const MCMCData< Ndim > &o)
- MCMCData< Ndim > & operator= (const MCMCData< Ndim > &o)

Public Attributes

- NdimVecT sample
- double rllh
- int nsample =0
- std::mutex mutex

7.46.1 Detailed Description

template<int Ndim>
class prior_hessian::mcmc::MCMCData< Ndim >

Definition at line 22 of file TruncatedMultivariateDist.h.

7.46.2 Member Typedef Documentation

7.46.2.1 template<int Ndim> using prior_hessian::mcmc::MCMCData< Ndim >::NdimVecT = arma::Col<double>::fixed<Ndim>

Definition at line 24 of file TruncatedMultivariateDist.h.

7.46.3 Constructor & Destructor Documentation

7.46.3.1 template<int Ndim> prior_hessian::mcmc::MCMCData< Ndim >::MCMCData ( ) [inline]

Definition at line 25 of file TruncatedMultivariateDist.h.

7.46.3.2 template<int Ndim> prior_hessian::mcmc::MCMCData< Ndim >::MCMCData (const MCMCData< Ndim > & *o*) [inline]

Definition at line 26 of file TruncatedMultivariateDist.h.

7.46.4 Member Function Documentation

7.46.4.1 template<int Ndim> MCMCData<Ndim>& prior_hessian::mcmc::MCMCData< Ndim >::operator= (const MCMCData< Ndim > & *o*) [inline]

Definition at line 37 of file TruncatedMultivariateDist.h.

7.46.5 Member Data Documentation

7.46.5.1 template<int Ndim> std::mutex **prior_hessian::mcmc::MCMCData**< Ndim >::mutex `[mutable]`

Definition at line 51 of file TruncatedMultivariateDist.h.

Referenced by prior_hessian::mcmc::MCMCData< Dist::num_dim()>::MCMCData(), and prior_hessian::mcmc::MC←
MCData< Dist::num_dim()>::operator=().

7.46.5.2 template<int Ndim> int **prior_hessian::mcmc::MCMCData**< Ndim >::nsample =0

Definition at line 50 of file TruncatedMultivariateDist.h.

Referenced by prior_hessian::mcmc::MCMCData< Dist::num_dim()>::MCMCData(), and prior_hessian::mcmc::MC←
MCData< Dist::num_dim()>::operator=().

7.46.5.3 template<int Ndim> double **prior_hessian::mcmc::MCMCData**< Ndim >::rllh

Definition at line 49 of file TruncatedMultivariateDist.h.

Referenced by prior_hessian::mcmc::MCMCData< Dist::num_dim()>::MCMCData(), prior_hessian::mcmc::MCMC←
Data< Dist::num_dim()>::operator=(), and prior_hessian::TruncatedMultivariateDist< Dist >::sample().

7.46.5.4 template<int Ndim> **NdimVecT prior_hessian::mcmc::MCMCData**< Ndim >::sample

Definition at line 48 of file TruncatedMultivariateDist.h.

Referenced by prior_hessian::mcmc::MCMCData< Dist::num_dim()>::MCMCData(), prior_hessian::Truncated←
MultivariateDist< Dist >::mean(), prior_hessian::mcmc::MCMCData< Dist::num_dim()>::operator=(), and prior_←
hessian::TruncatedMultivariateDist< Dist >::sample().

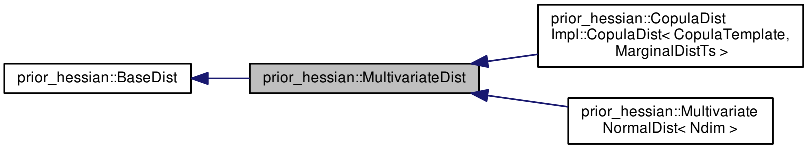
The documentation for this class was generated from the following file:

- TruncatedMultivariateDist.h

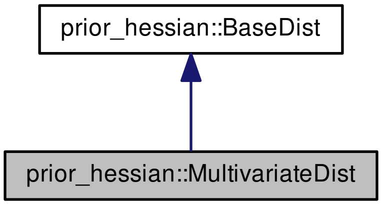
7.47 prior_hessian::MultivariateDist Class Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
MultivariateDist.h>
```

Inheritance diagram for prior_hessian::MultivariateDist:


prior_hessian::BaseDist
prior_hessian::MultivariateDist
prior_hessian::CopulaDist Impl::CopulaDist< CopulaTemplate, MarginalDistTs >
prior_hessian::Multivariate NormalDist< Ndim >

Collaboration diagram for prior_hessian::MultivariateDist:



Public Member Functions

- MultivariateDist ()

Static Protected Member Functions

- template<class Vec >
  static void check_bounds (const Vec &lbound, const Vec &ubound)

7.47.1 Detailed Description

Definition at line 15 of file MultivariateDist.h.

7.47.2 Constructor & Destructor Documentation

7.47.2.1 prior_hessian::MultivariateDist::MultivariateDist ( ) [inline]

Definition at line 18 of file MultivariateDist.h.

7.47.3 Member Function Documentation

7.47.3.1 template<class Vec > static void prior_hessian::MultivariateDist::check_bounds (const Vec & *lbound,* const Vec & *ubound*) [inline], [static], [protected]

Definition at line 57 of file MultivariateDist.h.

The documentation for this class was generated from the following file:

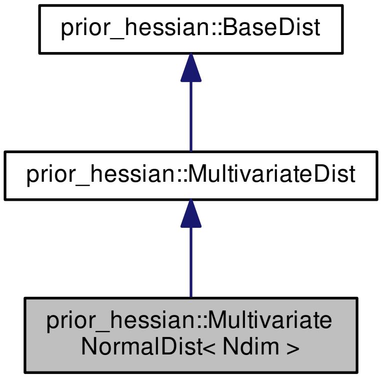
- MultivariateDist.h

7.48 prior_hessian::MultivariateNormalDist< Ndim > Class Template Reference

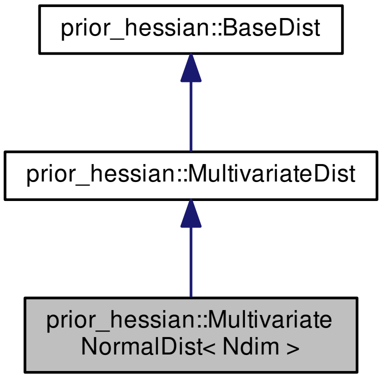
Multivariate Normal distribution.

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
MultivariateNormalDist.h>
```

Inheritance diagram for prior_hessian::MultivariateNormalDist< Ndim >:


prior_hessian::BaseDist
prior_hessian::MultivariateDist
prior_hessian::Multivariate NormalDist< Ndim >

Collaboration diagram for prior_hessian::MultivariateNormalDist< Ndim >:


prior_hessian::BaseDist
prior_hessian::MultivariateDist
prior_hessian::Multivariate NormalDist< Ndim >

Public Types

- using NdimVecT = arma::Col< double >::fixed< Ndim >
- using NdimMatT = arma::Mat< double >::fixed< Ndim, Ndim >
- using NparamsVecT = arma::Col< double >::fixed< _num_params >

Public Member Functions

- MultivariateNormalDist ()
- template< class Vec , class Mat >
  MultivariateNormalDist (Vec &&mu, Mat &&sigma)
- const NdimVecT & mu () const
- const NdimMatT & sigma () const
- const NdimMatT & sigma_inv () const
- template< class Vec >
  void set_mu (Vec &&val)
- template< class Mat >
  void set_sigma (Mat &&val)
- bool operator== (const MultivariateNormalDist< Ndim > &o) const
- bool operator!= (const MultivariateNormalDist< Ndim > &o) const
- double get_param (IdxT idx) const
- NparamsVecT params () const
- template< class Vec >
  void set_params (const Vec &p)
- template< class Vec , class Mat >
  void set_params (Vec &&mu, Mat &&sigma)
- NdimVecT mean () const
- NdimVecT mode () const
- template< class Vec >
  double cdf (Vec x) const
- template< class Vec >
  double pdf (const Vec &x) const
- template< class Vec >
  double llh (const Vec &x) const
- template< class Vec >
  double rllh (const Vec &x) const
- template< class Vec >
  NdimVecT grad (const Vec &x) const
- template< class Vec >
  NdimVecT grad2 (const Vec &x) const
- template< class Vec >
  NdimMatT hess (const Vec &x) const
- template< class Vec , class Vec2 >
  void grad_grad2_accumulate (const Vec &x, Vec2 &g, Vec2 &g2) const
- template< class Vec , class Vec2 , class Mat >
  void grad_hess_accumulate (const Vec &x, Vec2 &g, Mat &hess) const
- template< class RngT >
  NdimVecT sample (RngT &rng) const
- template< class IterT >
  void append_params (IterT &params) const
- template< class IterT >
  void set_params_iter (IterT &params)
- template<>
  double cdf (Vec x) const

Static Public Member Functions

- static constexpr IdxT num_params ()
- static constexpr IdxT num_dim ()
- static const NdimVecT & lbound ()
- static const NdimVecT & ubound ()
- template<class Vec >
  static bool in_bounds (const Vec &u)
- static const StringVecT & param_names ()
- static const NparamsVecT & param_lbound ()
- static const NparamsVecT & param_ubound ()
- template<class Vec >
  static bool check_mu (const Vec &mu)
- template<class Mat >
  static bool check_sigma (const Mat &sigma)
- template<class Vec , class Mat >
  static bool check_params (const Vec &mu, const Mat &sigma)
- template<class Vec >
  static bool check_params (const Vec &params)
- template<class IterT >
  static bool check_params_iter (IterT &params)

Static Protected Member Functions

- template<class Vec >
  static void check_bounds (const Vec &lbound, const Vec &ubound)

7.48.1 Detailed Description

template<IdxT Ndim>
class prior_hessian::MultivariateNormalDist< Ndim >

Multivariate Normal distribution.

Definition at line 18 of file MultivariateNormalDist.h.

7.48.2 Member Typedef Documentation

7.48.2.1 template<IdxT Ndim> using prior_hessian::MultivariateNormalDist< Ndim >::NdimMatT = arma::Mat<double>::fixed<Ndim,Ndim>

Definition at line 24 of file MultivariateNormalDist.h.

7.48.2.2 template<IdxT Ndim> using prior_hessian::MultivariateNormalDist< Ndim >::NdimVecT = arma::Col<double>::fixed<Ndim>

Definition at line 23 of file MultivariateNormalDist.h.

7.48.2.3 template<IdxT Ndim> using prior_hessian::MultivariateNormalDist< Ndim >::NparamsVecT = arma::Col<double>::fixed<_num_params>

Definition at line 25 of file MultivariateNormalDist.h.

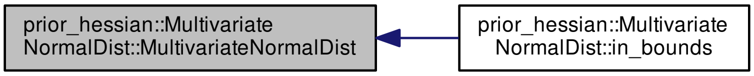
7.48.3 Constructor & Destructor Documentation

7.48.3.1 template<IdxT Ndim> prior_hessian::MultivariateNormalDist< Ndim >::MultivariateNormalDist ( )

Definition at line 172 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds().

Here is the caller graph for this function:

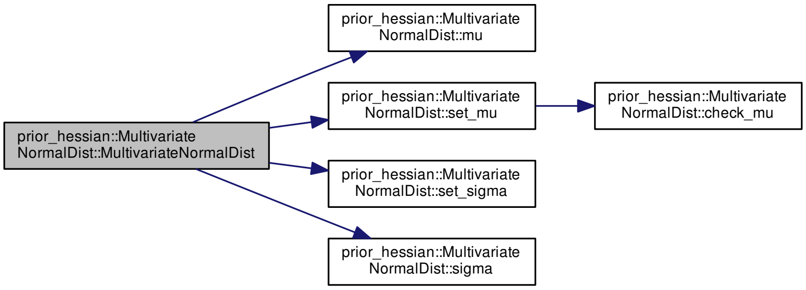

prior_hessian::Multivariate NormalDist::MultivariateNormalDist
prior_hessian::Multivariate NormalDist::in_bounds

7.48.3.2 template<IdxT Ndim> template<class Vec , class Mat > prior_hessian::MultivariateNormalDist< Ndim >::MultivariateNormalDist (Vec && *mu*, Mat && *sigma*)

Definition at line 185 of file MultivariateNormalDist.h.

References prior_hessian::MultivariateNormalDist< Ndim >::mu(), prior_hessian::MultivariateNormalDist< Ndim >↩ ::set_mu(), prior_hessian::MultivariateNormalDist< Ndim >::set_sigma(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma().

Here is the call graph for this function:

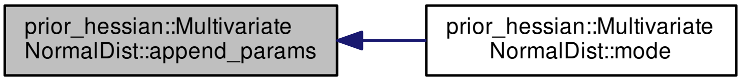

prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::check_mu
prior_hessian::Multivariate NormalDist::MultivariateNormalDist
prior_hessian::Multivariate NormalDist::set_sigma
prior_hessian::Multivariate NormalDist::sigma

7.48.4 Member Function Documentation

7.48.4.1 template< IdxT Ndim> template< class IterT > void **prior_hessian::MultivariateNormalDist**< Ndim >::append_params (IterT & *params*) const

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::append_params
prior_hessian::Multivariate NormalDist::mode

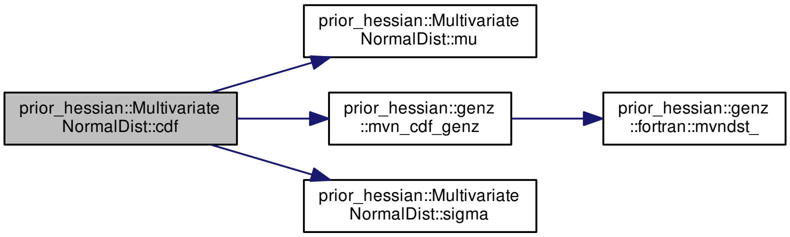
7.48.4.2 template< IdxT Ndim> template< class Vec > double **prior_hessian::MultivariateNormalDist**< Ndim >::cdf (Vec *x*) const

Definition at line 480 of file MultivariateNormalDist.h.

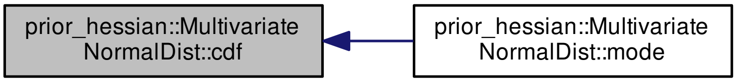
References prior_hessian::MultivariateNormalDist< Ndim >::mu(), prior_hessian::genz::mvn_cdf_genz(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::cdf
prior_hessian::genz ::mvn_cdf_genz
prior_hessian::genz ::fortran::mvndst_
prior_hessian::Multivariate NormalDist::sigma

Here is the caller graph for this function:

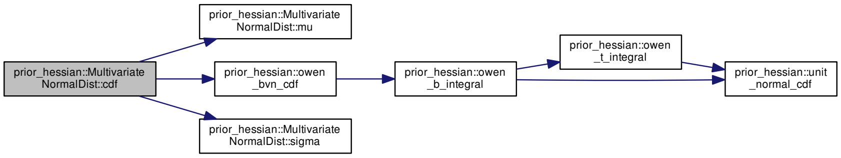

prior_hessian::Multivariate NormalDist::cdf
prior_hessian::Multivariate NormalDist::mode

7.48.4.3 template<> double prior_hessian::MultivariateNormalDist< 2 >::cdf (Vec *x*) const

Definition at line 489 of file MultivariateNormalDist.h.

References prior_hessian::MultivariateNormalDist< Ndim >::mu(), prior_hessian::owen_bvn_cdf(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::cdf
prior_hessian::Multivariate NormalDist::mu
prior_hessian::owen _bvn_cdf
prior_hessian::Multivariate NormalDist::sigma
prior_hessian::owen _b_integral
prior_hessian::owen _t_integral
prior_hessian::unit _normal_cdf

7.48.4.4 template<class Vec > static void prior_hessian::MultivariateDist::check_bounds (const Vec & *lbound,* const Vec & *ubound*) [inline], [static], [protected], [inherited]

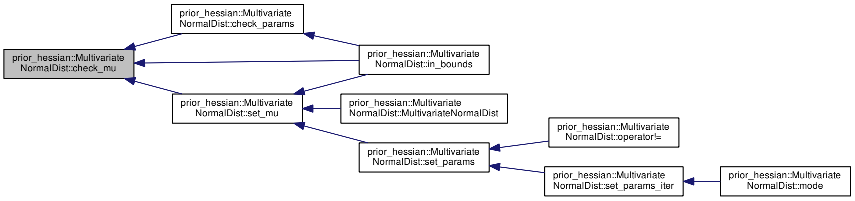
Definition at line 57 of file MultivariateDist.h.

7.48.4.5 template<IdxT Ndim> template<class Vec > bool prior_hessian::MultivariateNormalDist< Ndim >::check_mu (const Vec & *mu*) [static]

Definition at line 194 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::check_params(), prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), and prior_hessian::MultivariateNormalDist< Ndim >::set_mu().

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::check_mu
prior_hessian::Multivariate NormalDist::check_params
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::MultivariateNormalDist
prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::operator!=
prior_hessian::Multivariate NormalDist::set_params_iter
prior_hessian::Multivariate NormalDist::mode

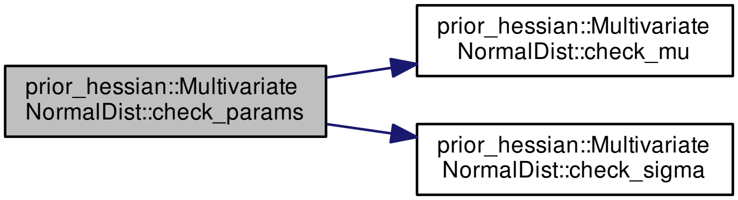
7.48.4.6 template<IdxT Ndim> template<class Vec , class Mat > bool **prior_hessian::MultivariateNormalDist**< Ndim >::check_params (const Vec & *mu,* const Mat & *sigma*) [static]

Definition at line 211 of file MultivariateNormalDist.h.

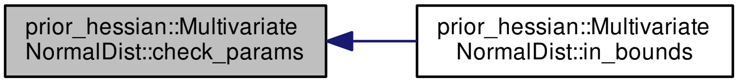
References prior_hessian::MultivariateNormalDist< Ndim >::check_mu(), and prior_hessian::MultivariateNormalDist< Ndim >::check_sigma().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds().

Here is the call graph for this function:


prior_hessian::Multivariate
NormalDist::check_params
prior_hessian::Multivariate
NormalDist::check_mu
prior_hessian::Multivariate
NormalDist::check_sigma

Here is the caller graph for this function:

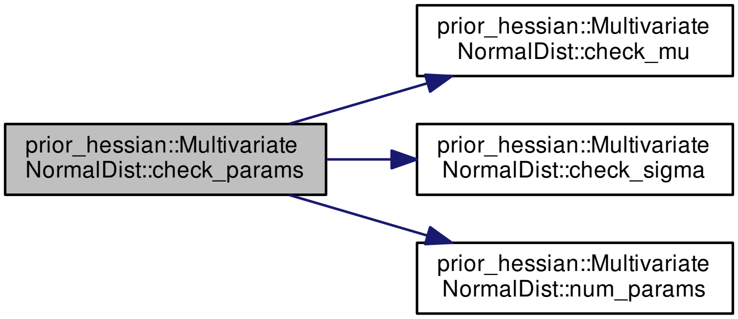


7.48.4.7 template<IdxT Ndim> template<class Vec > bool **prior_hessian::MultivariateNormalDist**< Ndim >::check_params (const Vec & *params*) [static]

Definition at line 218 of file MultivariateNormalDist.h.

References prior_hessian::MultivariateNormalDist< Ndim >::check_mu(), prior_hessian::MultivariateNormalDist< Ndim >::check_sigma(), and prior_hessian::MultivariateNormalDist< Ndim >::num_params().

Here is the call graph for this function:


prior_hessian::Multivariate
NormalDist::check_params
prior_hessian::Multivariate
NormalDist::check_mu
prior_hessian::Multivariate
NormalDist::check_sigma
prior_hessian::Multivariate
NormalDist::num_params

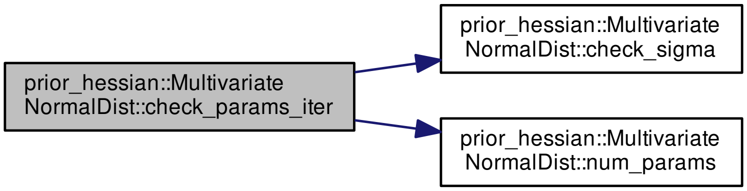
7.48.4.8 template< IdxT Ndim> template< class IterT > bool prior_hessian::MultivariateNormalDist< Ndim >::check_params_iter (IterT & *params*) [static]

Definition at line 226 of file MultivariateNormalDist.h.

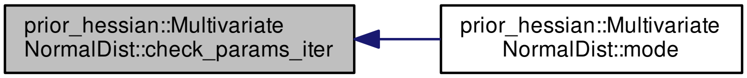
References prior_hessian::MultivariateNormalDist< Ndim >::check_sigma(), and prior_hessian::MultivariateNormal↩ Dist< Ndim >::num_params().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate
NormalDist::check_params_iter
prior_hessian::Multivariate
NormalDist::check_sigma
prior_hessian::Multivariate
NormalDist::num_params

Here is the caller graph for this function:

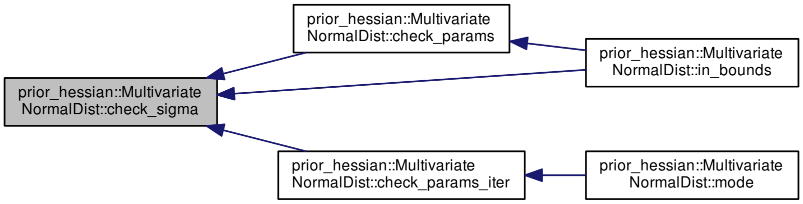

prior_hessian::Multivariate
NormalDist::check_params_iter
prior_hessian::Multivariate
NormalDist::mode

7.48.4.9 template<IdxT Ndim> template<class Mat > bool prior_hessian::MultivariateNormalDist< Ndim >::check_sigma (const Mat & *sigma*) [static]

Definition at line 201 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::check_params(), prior_hessian::MultivariateNormalDist< Ndim >::check_params_iter(), and prior_hessian::MultivariateNormalDist< Ndim >::in_bounds().

Here is the caller graph for this function:

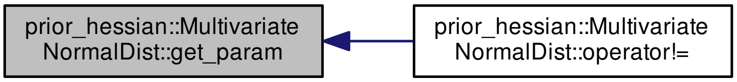

prior_hessian::Multivariate
NormalDist::check_sigma
prior_hessian::Multivariate
NormalDist::check_params
prior_hessian::Multivariate
NormalDist::in_bounds
prior_hessian::Multivariate
NormalDist::check_params_iter
prior_hessian::Multivariate
NormalDist::mode

7.48.4.10 template<IdxT Ndim> double prior_hessian::MultivariateNormalDist< Ndim >::get_param (IdxT *idx*) const

Definition at line 440 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::operator!=().

Here is the caller graph for this function:



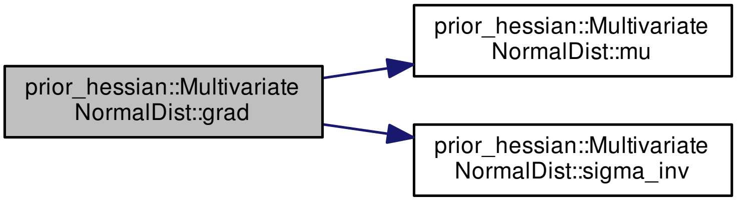
7.48.4.11 template<IdxT Ndim> template<class Vec > MultivariateNormalDist< Ndim >::NdimVecT prior_hessian::MultivariateNormalDist< Ndim >::grad (const Vec & *x*) const

Definition at line 522 of file MultivariateNormalDist.h.

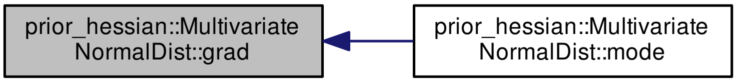
References prior_hessian::MultivariateNormalDist< Ndim >::mu(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma_inv().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::grad
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::sigma_inv

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::grad
prior_hessian::Multivariate NormalDist::mode

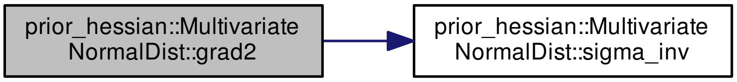
7.48.4.12 template<IdxT Ndim> template<class Vec > MultivariateNormalDist< Ndim >::NdimVecT prior_hessian::MultivariateNormalDist< Ndim >::grad2 (const Vec & *x*) const

Definition at line 530 of file MultivariateNormalDist.h.

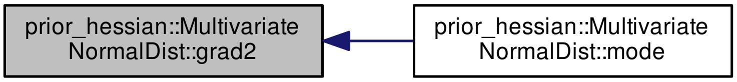
References prior_hessian::MultivariateNormalDist< Ndim >::sigma_inv().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::grad2
prior_hessian::Multivariate NormalDist::sigma_inv

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::grad2
prior_hessian::Multivariate NormalDist::mode

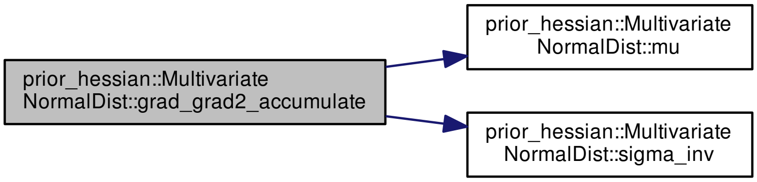
7.48.4.13 template< IdxT Ndim > template< class Vec , class Vec2 > void **prior_hessian::MultivariateNormalDist**< Ndim >::grad_grad2_accumulate (const Vec & *x*, Vec2 & *g*, Vec2 & *g2*) const

Definition at line 545 of file MultivariateNormalDist.h.

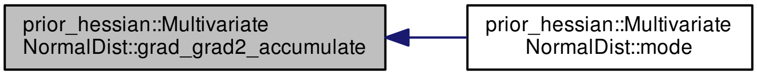
References prior_hessian::MultivariateNormalDist< Ndim >::mu(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma_inv().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::grad_grad2_accumulate
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::sigma_inv

Here is the caller graph for this function:


prior_hessian::Multivariate
NormalDist::grad_grad2_accumulate
prior_hessian::Multivariate
NormalDist::mode

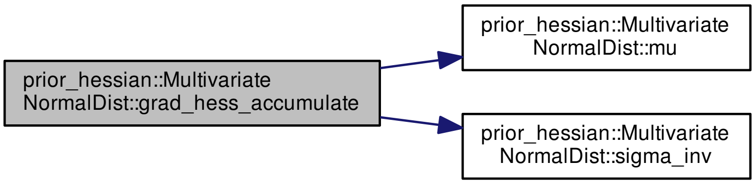
7.48.4.14 template<IdxT Ndim> template<class Vec , class Vec2 , class Mat > void **prior_hessian::MultivariateNormalDist**< Ndim >::grad_hess_accumulate (const Vec & *x,* Vec2 & *g,* Mat & *hess*) const

Definition at line 553 of file MultivariateNormalDist.h.

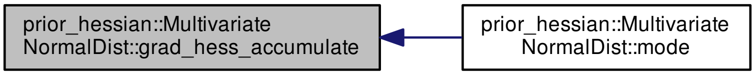
References prior_hessian::MultivariateNormalDist< Ndim >::mu(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma_inv().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate
NormalDist::grad_hess_accumulate
prior_hessian::Multivariate
NormalDist::mu
prior_hessian::Multivariate
NormalDist::sigma_inv

Here is the caller graph for this function:


prior_hessian::Multivariate
NormalDist::grad_hess_accumulate
prior_hessian::Multivariate
NormalDist::mode

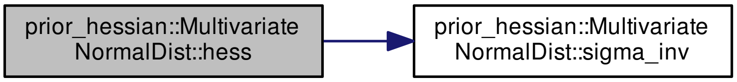
7.48.4.15 template<IdxT Ndim> template<class Vec > MultivariateNormalDist< Ndim >::NdimMatT prior_hessian::MultivariateNormalDist< Ndim >::hess (const Vec & *x*) const

Definition at line 538 of file MultivariateNormalDist.h.

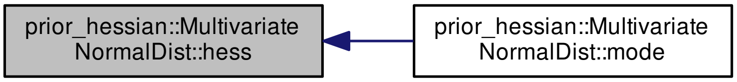
References prior_hessian::MultivariateNormalDist< Ndim >::sigma_inv().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::hess
prior_hessian::Multivariate NormalDist::sigma_inv

Here is the caller graph for this function:

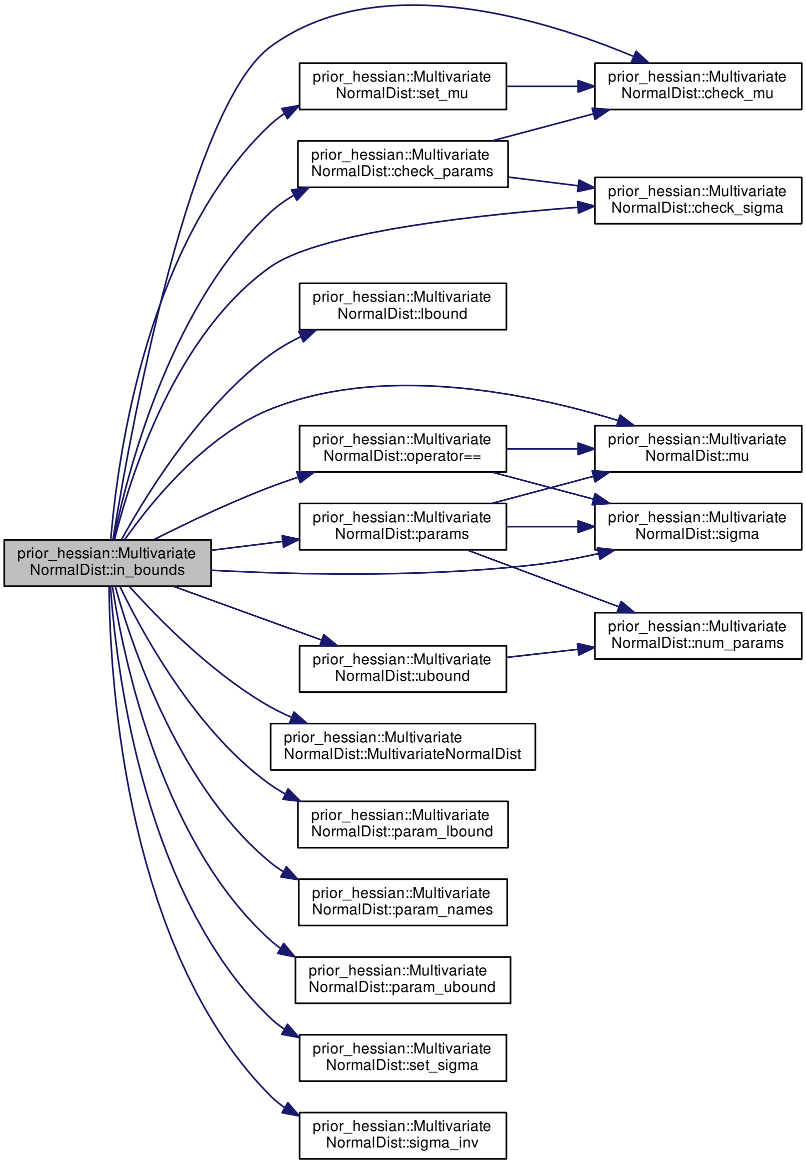

prior_hessian::Multivariate NormalDist::hess
prior_hessian::Multivariate NormalDist::mode

7.48.4.16 template<IdxT Ndim> template<class Vec > static bool prior_hessian::MultivariateNormalDist< Ndim >::in_bounds (const Vec & *u*) [inline], [static]

Definition at line 32 of file MultivariateNormalDist.h.

References prior_hessian::MultivariateNormalDist< Ndim >::check_mu(), prior_hessian::MultivariateNormalDist< Ndim >::check_params(), prior_hessian::MultivariateNormalDist< Ndim >::check_sigma(), prior_hessian::MultivariateNormalDist< Ndim >::lbound(), prior_hessian::MultivariateNormalDist< Ndim >::mu(), prior_hessian::MultivariateNormalDist< Ndim >::MultivariateNormalDist(), prior_hessian::MultivariateNormalDist< Ndim >::operator==(), prior_hessian::MultivariateNormalDist< Ndim >::param_lbound(), prior_hessian::MultivariateNormalDist< Ndim >::param_names(), prior_hessian::MultivariateNormalDist< Ndim >::param_ubound(), prior_hessian::MultivariateNormalDist< Ndim >::params(), prior_hessian::MultivariateNormalDist< Ndim >::set_mu(), prior_hessian::MultivariateNormalDist< Ndim >::set_sigma(), prior_hessian::MultivariateNormalDist< Ndim >::sigma(), prior_hessian::MultivariateNormalDist< Ndim >::sigma_inv(), and prior_hessian::MultivariateNormalDist< Ndim >::ubound().

Here is the call graph for this function:

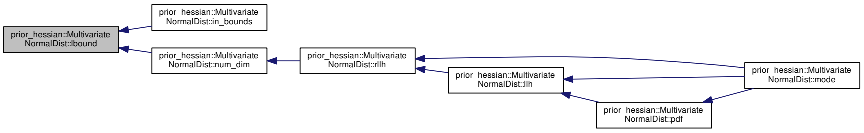

prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::check_mu
prior_hessian::Multivariate NormalDist::check_params
prior_hessian::Multivariate NormalDist::check_sigma
prior_hessian::Multivariate NormalDist::lbound
prior_hessian::Multivariate NormalDist::operator==
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::params
prior_hessian::Multivariate NormalDist::sigma
prior_hessian::Multivariate NormalDist::num_params
prior_hessian::Multivariate NormalDist::ubound
prior_hessian::Multivariate NormalDist::MultivariateNormalDist
prior_hessian::Multivariate NormalDist::param_lbound
prior_hessian::Multivariate NormalDist::param_names
prior_hessian::Multivariate NormalDist::param_ubound
prior_hessian::Multivariate NormalDist::set_sigma
prior_hessian::Multivariate NormalDist::sigma_inv

7.48.4.17 template<IdxT Ndim> const MultivariateNormalDist< Ndim >::NdimVecT & prior_hessian::MultivariateNormalDist< Ndim >::lbound ( ) [static]

Definition at line 296 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), and prior_hessian::MultivariateNormalDist< Ndim >::num_dim().

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::lbound
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::num_dim
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::pdf
prior_hessian::Multivariate NormalDist::mode

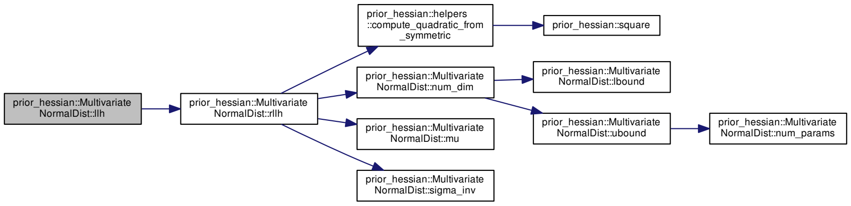
7.48.4.18 template< IdxT Ndim > template< class Vec > double prior_hessian::MultivariateNormalDist< Ndim >::llh (const Vec & *x*) const

Definition at line 506 of file MultivariateNormalDist.h.

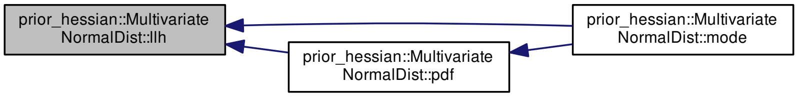
References prior_hessian::MultivariateNormalDist< Ndim >::rllh().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode(), and prior_hessian::MultivariateNormalDist< Ndim >::pdf().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::helpers ::compute_quadratic_from _symmetric
prior_hessian::square
prior_hessian::Multivariate NormalDist::num_dim
prior_hessian::Multivariate NormalDist::lbound
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::ubound
prior_hessian::Multivariate NormalDist::num_params
prior_hessian::Multivariate NormalDist::sigma_inv

Here is the caller graph for this function:

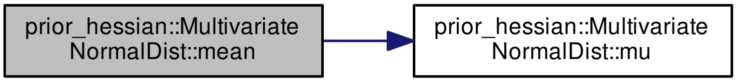

prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::pdf
prior_hessian::Multivariate NormalDist::mode

7.48.4.19 template<IdxT Ndim> NdimVecT prior_hessian::MultivariateNormalDist< Ndim >::mean ( ) const [inline]

Definition at line 71 of file MultivariateNormalDist.h.

References prior_hessian::MultivariateNormalDist< Ndim >::mu().

Here is the call graph for this function:

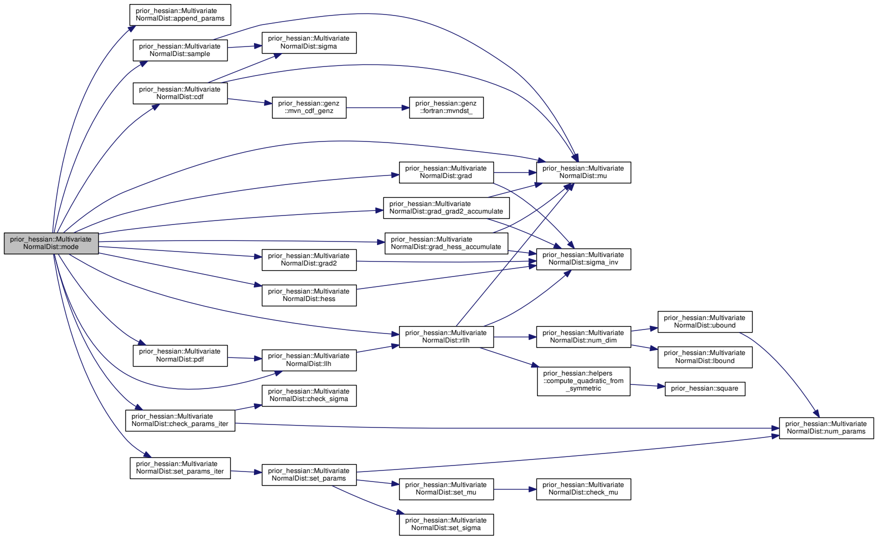


7.48.4.20 template<IdxT Ndim> NdimVecT prior_hessian::MultivariateNormalDist< Ndim >::mode ( ) const [inline]

Definition at line 72 of file MultivariateNormalDist.h.

References prior_hessian::MultivariateNormalDist< Ndim >::append_params(), prior_hessian::MultivariateNormalDist< Ndim >::cdf(), prior_hessian::MultivariateNormalDist< Ndim >::check_params_iter(), prior_hessian::MultivariateNormalDist< Ndim >::grad(), prior_hessian::MultivariateNormalDist< Ndim >::grad2(), prior_hessian::MultivariateNormalDist< Ndim >::grad_grad2_accumulate(), prior_hessian::MultivariateNormalDist< Ndim >::grad_hess_accumulate(), prior_hessian::MultivariateNormalDist< Ndim >::hess(), prior_hessian::MultivariateNormalDist< Ndim >::llh(), prior_hessian::MultivariateNormalDist< Ndim >::mu(), prior_hessian::MultivariateNormalDist< Ndim >::pdf(), prior_hessian::MultivariateNormalDist< Ndim >::rllh(), prior_hessian::MultivariateNormalDist< Ndim >::sample(), and prior_hessian::MultivariateNormalDist< Ndim >::set_params_iter().

Here is the call graph for this function:

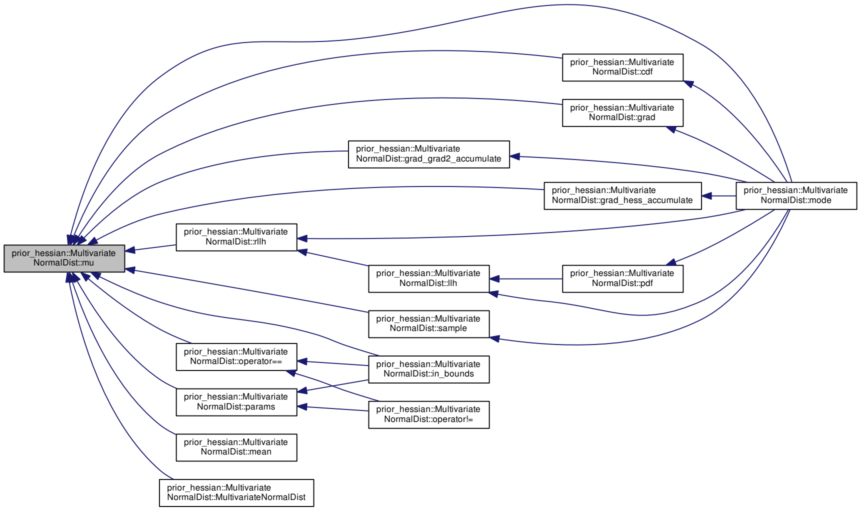

prior_hessian::Multivariate
NormalDist::append_params
prior_hessian::Multivariate
NormalDist::sample
prior_hessian::Multivariate
NormalDist::sigma
prior_hessian::Multivariate
NormalDist::cdf
prior_hessian::genz
::mvn_cdf_genz
prior_hessian::genz
::fortran::mvndst_
prior_hessian::Multivariate
NormalDist::grad
prior_hessian::Multivariate
NormalDist::mu
prior_hessian::Multivariate
NormalDist::grad_grad2_accumulate
prior_hessian::Multivariate
NormalDist::mode
prior_hessian::Multivariate
NormalDist::grad_hess_accumulate
prior_hessian::Multivariate
NormalDist::grad2
prior_hessian::Multivariate
NormalDist::sigma_inv
prior_hessian::Multivariate
NormalDist::hess
prior_hessian::Multivariate
NormalDist::ubound
prior_hessian::Multivariate
NormalDist::rllh
prior_hessian::Multivariate
NormalDist::num_dim
prior_hessian::Multivariate
NormalDist::pdf
prior_hessian::Multivariate
NormalDist::llh
prior_hessian::Multivariate
NormalDist::lbound
prior_hessian::helpers
::compute_quadratic_from
_symmetric
prior_hessian::square
prior_hessian::Multivariate
NormalDist::check_sigma
prior_hessian::Multivariate
NormalDist::check_params_iter
prior_hessian::Multivariate
NormalDist::num_params
prior_hessian::Multivariate
NormalDist::set_params_iter
prior_hessian::Multivariate
NormalDist::set_params
prior_hessian::Multivariate
NormalDist::set_mu
prior_hessian::Multivariate
NormalDist::check_mu
prior_hessian::Multivariate
NormalDist::set_sigma

7.48.4.21 template<IdxT Ndim> const **MultivariateNormalDist**< Ndim >::**NdimVecT** & **prior_hessian::MultivariateNormalDist**< Ndim >::mu ( ) const

Definition at line 374 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::cdf(), prior_hessian::MultivariateNormalDist< Ndim >::grad(), prior_hessian::MultivariateNormalDist< Ndim >::grad_grad2_accumulate(), prior_hessian::MultivariateNormalDist< Ndim >::grad_hess_accumulate(), prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), prior_hessian::MultivariateNormalDist< Ndim >::mean(), prior_hessian::MultivariateNormalDist< Ndim >::mode(), prior_hessian::MultivariateNormalDist< Ndim >::MultivariateNormalDist(), prior_hessian::MultivariateNormalDist< Ndim >::operator==(), prior_hessian::MultivariateNormalDist< Ndim >::params(), prior_hessian::MultivariateNormalDist< Ndim >::rllh(), and prior_hessian::MultivariateNormalDist< Ndim >::sample().

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::cdf
prior_hessian::Multivariate NormalDist::grad
prior_hessian::Multivariate NormalDist::grad_grad2_accumulate
prior_hessian::Multivariate NormalDist::grad_hess_accumulate
prior_hessian::Multivariate NormalDist::mode
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::pdf
prior_hessian::Multivariate NormalDist::sample
prior_hessian::Multivariate NormalDist::operator==
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::params
prior_hessian::Multivariate NormalDist::operator!=
prior_hessian::Multivariate NormalDist::mean
prior_hessian::Multivariate NormalDist::MultivariateNormalDist

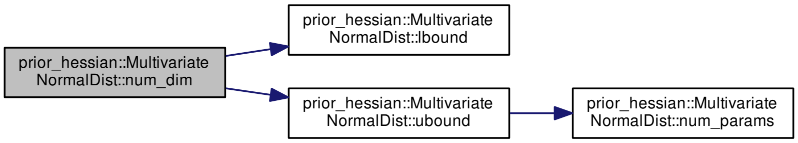
7.48.4.22 template<IdxT Ndim> static constexpr **IdxT prior_hessian::MultivariateNormalDist**< Ndim >::num_dim ( ) [inline], [static]

Definition at line 28 of file MultivariateNormalDist.h.

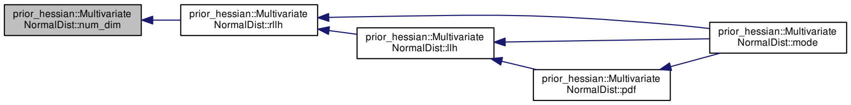
References prior_hessian::MultivariateNormalDist< Ndim >::lbound(), and prior_hessian::MultivariateNormalDist< Ndim >::ubound().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::rllh().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::num_dim
prior_hessian::Multivariate NormalDist::lbound
prior_hessian::Multivariate NormalDist::ubound
prior_hessian::Multivariate NormalDist::num_params

Here is the caller graph for this function:

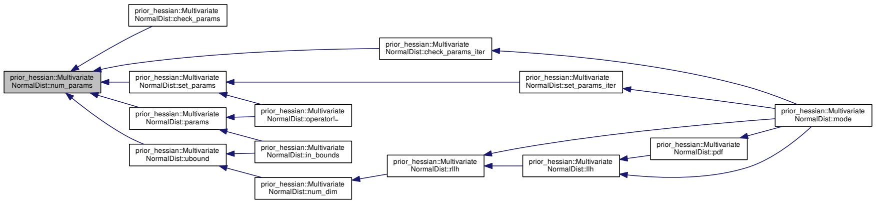

prior_hessian::Multivariate NormalDist::num_dim
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::mode
prior_hessian::Multivariate NormalDist::pdf

7.48.4.23 template<IdxT Ndim> static constexpr IdxT prior_hessian::MultivariateNormalDist< Ndim >::num_params ( ) [inline], [static]

Definition at line 27 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::check_params(), prior_hessian::MultivariateNormalDist< Ndim >::check_params_iter(), prior_hessian::MultivariateNormalDist< Ndim >::params(), prior_hessian::MultivariateNormalDist< Ndim >::set_params(), and prior_hessian::MultivariateNormalDist< Ndim >::ubound().

Here is the caller graph for this function:

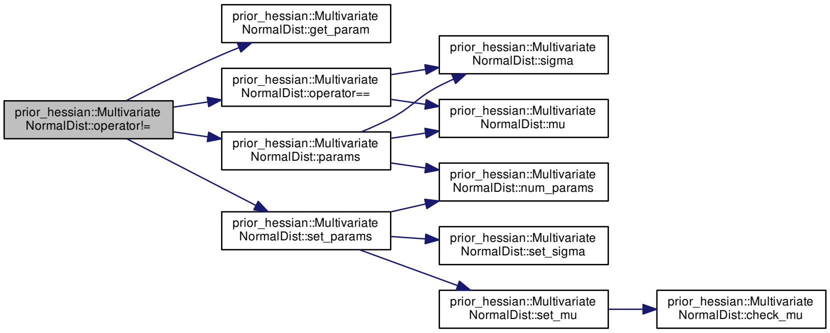

prior_hessian::Multivariate NormalDist::check_params
prior_hessian::Multivariate NormalDist::check_params_iter
prior_hessian::Multivariate NormalDist::num_params
prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::set_params_iter
prior_hessian::Multivariate NormalDist::params
prior_hessian::Multivariate NormalDist::operator!=
prior_hessian::Multivariate NormalDist::mode
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::pdf
prior_hessian::Multivariate NormalDist::ubound
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::num_dim

7.48.4.24 template<IdxT Ndim> bool prior_hessian::MultivariateNormalDist< Ndim >::operator!= (const MultivariateNormalDist< Ndim > & *o*) const [inline]

Definition at line 59 of file MultivariateNormalDist.h.

References prior_hessian::MultivariateNormalDist< Ndim >::get_param(), prior_hessian::MultivariateNormalDist< Ndim >::operator==(), prior_hessian::MultivariateNormalDist< Ndim >::params(), and prior_hessian::MultivariateNormalDist< Ndim >::set_params().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::get_param
prior_hessian::Multivariate NormalDist::sigma
prior_hessian::Multivariate NormalDist::operator==
prior_hessian::Multivariate NormalDist::operator!=
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::params
prior_hessian::Multivariate NormalDist::num_params
prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::set_sigma
prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::check_mu

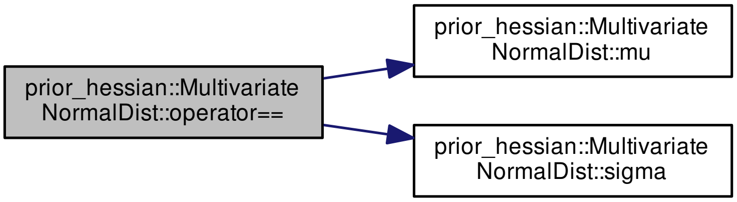
7.48.4.25 template<IdxT Ndim> bool **prior_hessian::MultivariateNormalDist**< Ndim >::operator== (const **MultivariateNormalDist**< Ndim > & *o*) const

Definition at line 424 of file MultivariateNormalDist.h.

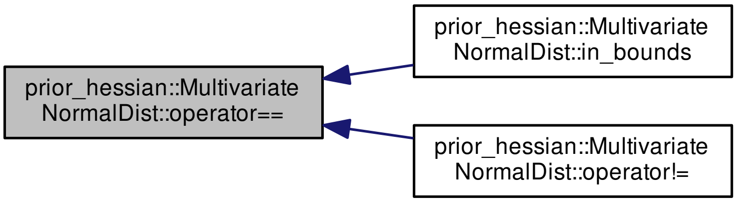
References prior_hessian::MultivariateNormalDist< Ndim >::mu(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), and prior_hessian::MultivariateNormalDist< Ndim >::operator!=().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::operator==
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::sigma

Here is the caller graph for this function:

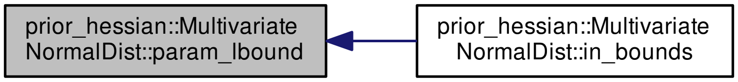

prior_hessian::Multivariate NormalDist::operator==
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::operator!=

7.48.4.26 template<IdxT Ndim> const **MultivariateNormalDist**< Ndim >**::NparamsVecT** & **prior_hessian::MultivariateNormalDist**< Ndim >::param_lbound ( ) [static]

Definition at line 278 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds().

Here is the caller graph for this function:

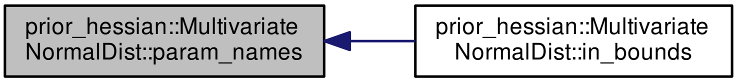


7.48.4.27 template<IdxT Ndim> const StringVecT & prior_hessian::MultivariateNormalDist< Ndim >::param_names ( ) [static]

Definition at line 269 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds().

Here is the caller graph for this function:

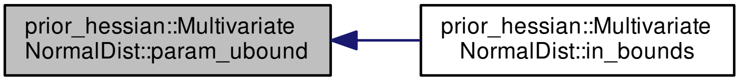


7.48.4.28 template<IdxT Ndim> const MultivariateNormalDist< Ndim >::NparamsVecT & prior_hessian::MultivariateNormalDist< Ndim >::param_ubound ( ) [static]

Definition at line 287 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds().

Here is the caller graph for this function:



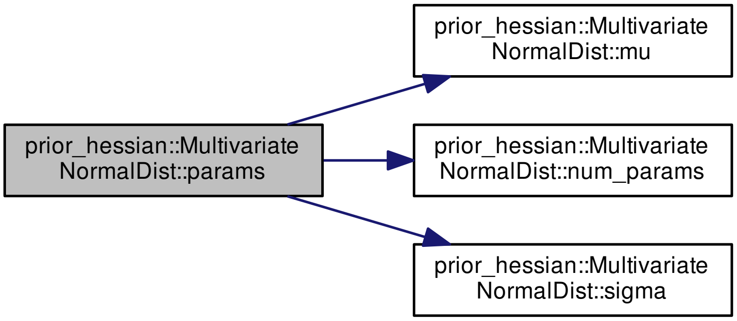
7.48.4.29 template<IdxT Ndim> MultivariateNormalDist< Ndim >::NparamsVecT prior_hessian::MultivariateNormalDist< Ndim >::params ( ) const

Definition at line 431 of file MultivariateNormalDist.h.

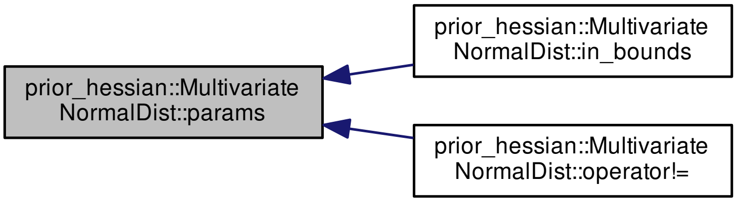
References prior_hessian::MultivariateNormalDist< Ndim >::mu(), prior_hessian::MultivariateNormalDist< Ndim >::num_params(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), and prior_hessian::MultivariateNormalDist< Ndim >::operator!=().

Here is the call graph for this function:


prior_hessian::Multivariate
NormalDist::params
prior_hessian::Multivariate
NormalDist::mu
prior_hessian::Multivariate
NormalDist::num_params
prior_hessian::Multivariate
NormalDist::sigma

Here is the caller graph for this function:


prior_hessian::Multivariate
NormalDist::params
prior_hessian::Multivariate
NormalDist::in_bounds
prior_hessian::Multivariate
NormalDist::operator!=

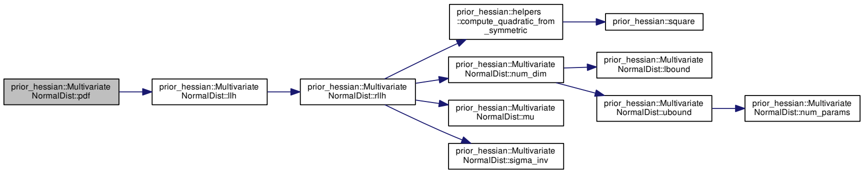
7.48.4.30 template<IdxT Ndim> template<class Vec > double prior_hessian::MultivariateNormalDist< Ndim >::pdf (const Vec & *x*) const

Definition at line 496 of file MultivariateNormalDist.h.

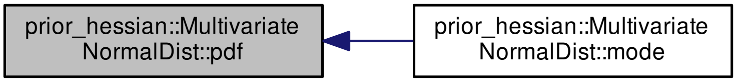
References prior_hessian::MultivariateNormalDist< Ndim >::llh().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::pdf
prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::helpers ::compute_quadratic_from _symmetric
prior_hessian::square
prior_hessian::Multivariate NormalDist::num_dim
prior_hessian::Multivariate NormalDist::lbound
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::ubound
prior_hessian::Multivariate NormalDist::num_params
prior_hessian::Multivariate NormalDist::sigma_inv

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::pdf
prior_hessian::Multivariate NormalDist::mode

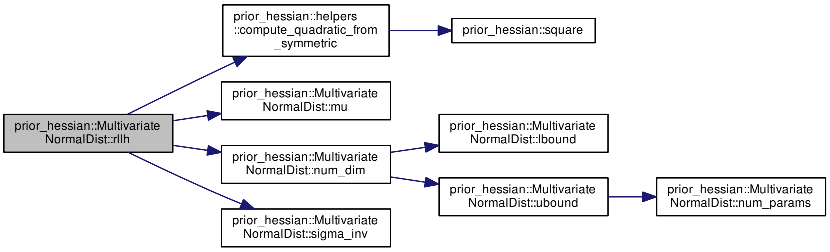
7.48.4.31 template<IdxT Ndim> template<class Vec > double prior_hessian::MultivariateNormalDist< Ndim >::rllh (const Vec & *x*) const

Definition at line 514 of file MultivariateNormalDist.h.

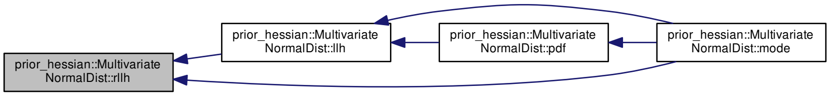
References prior_hessian::helpers::compute_quadratic_from_symmetric(), prior_hessian::MultivariateNormalDist< Ndim >::mu(), prior_hessian::MultivariateNormalDist< Ndim >::num_dim(), and prior_hessian::MultivariateNormal↩ Dist< Ndim >::sigma_inv().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::llh(), and prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::helpers ::compute_quadratic_from _symmetric
prior_hessian::square
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::Multivariate NormalDist::lbound
prior_hessian::Multivariate NormalDist::num_dim
prior_hessian::Multivariate NormalDist::ubound
prior_hessian::Multivariate NormalDist::num_params
prior_hessian::Multivariate NormalDist::sigma_inv

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::pdf
prior_hessian::Multivariate NormalDist::mode
prior_hessian::Multivariate NormalDist::rllh

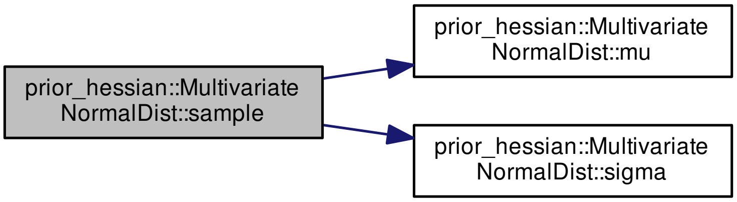
7.48.4.32 template< IdxT Ndim> template< class RngT > MultivariateNormalDist< Ndim >::NdimVecT prior_hessian::MultivariateNormalDist< Ndim >::sample (RngT & *rng*) const

Definition at line 562 of file MultivariateNormalDist.h.

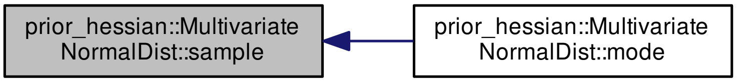
References prior_hessian::constants::log2pi, prior_hessian::MultivariateNormalDist< Ndim >::mu(), and prior_hessian::MultivariateNormalDist< Ndim >::sigma().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::sample
prior_hessian::Multivariate NormalDist::mu
prior_hessian::Multivariate NormalDist::sigma

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::sample
prior_hessian::Multivariate NormalDist::mode

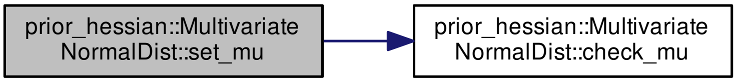
7.48.4.33 template<IdxT Ndim> template<class Vec > void **prior_hessian::MultivariateNormalDist**< Ndim >::set_mu (Vec && *val*)

Definition at line 394 of file MultivariateNormalDist.h.

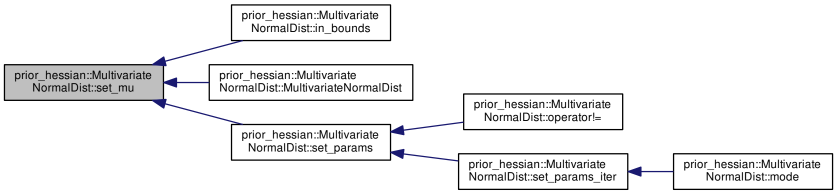
References prior_hessian::MultivariateNormalDist< Ndim >::check_mu().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), prior_hessian::MultivariateNormalDist< Ndim >::MultivariateNormalDist(), and prior_hessian::MultivariateNormalDist< Ndim >::set_params().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::check_mu

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::MultivariateNormalDist
prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::operator!=
prior_hessian::Multivariate NormalDist::set_params_iter
prior_hessian::Multivariate NormalDist::mode

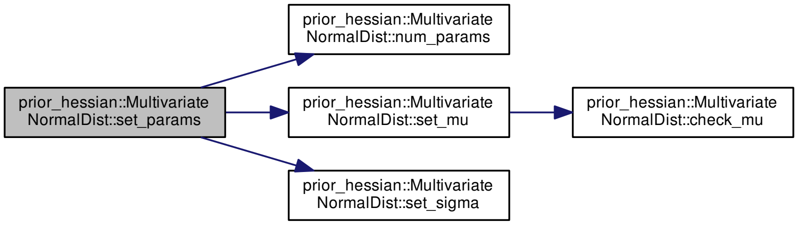
7.48.4.34 template<IdxT Ndim> template<class Vec > void **prior_hessian::MultivariateNormalDist**< Ndim >::set_params (const Vec & *p*)

Definition at line 452 of file MultivariateNormalDist.h.

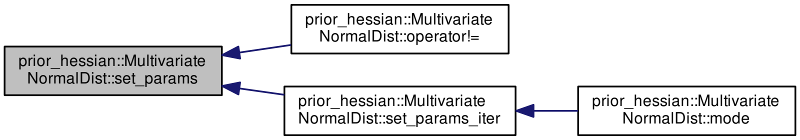
References prior_hessian::MultivariateNormalDist< Ndim >::num_params(), prior_hessian::MultivariateNormalDist< Ndim >::set_mu(), and prior_hessian::MultivariateNormalDist< Ndim >::set_sigma().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::operator!=(), and prior_hessian::MultivariateNormal↩Dist< Ndim >::set_params_iter().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::num_params
prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::check_mu
prior_hessian::Multivariate NormalDist::set_sigma

Here is the caller graph for this function:

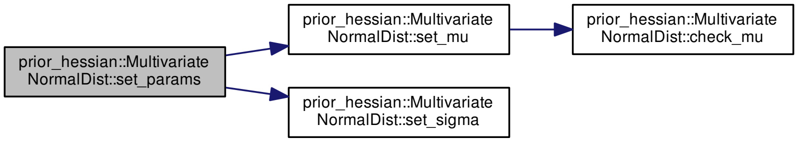

prior_hessian::Multivariate NormalDist::operator!=
prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::set_params_iter
prior_hessian::Multivariate NormalDist::mode

7.48.4.35 template<IdxT Ndim> template<class Vec , class Mat > void **prior_hessian::MultivariateNormalDist**< Ndim >::set_params (Vec && *mu,* Mat && *sigma*)

Definition at line 460 of file MultivariateNormalDist.h.

References prior_hessian::MultivariateNormalDist< Ndim >::set_mu(), and prior_hessian::MultivariateNormalDist< Ndim >::set_sigma().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::check_mu
prior_hessian::Multivariate NormalDist::set_sigma

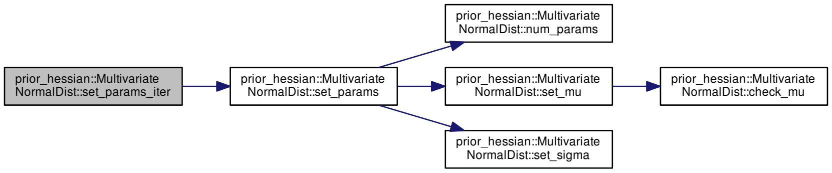
7.48.4.36 template< IdxT Ndim> template< class IterT > void prior_hessian::MultivariateNormalDist< Ndim >::set_params_iter (IterT & *params*)

Definition at line 468 of file MultivariateNormalDist.h.

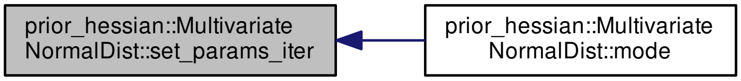
References prior_hessian::MultivariateNormalDist< Ndim >::set_params().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::mode().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::set_params_iter
prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::num_params
prior_hessian::Multivariate NormalDist::set_mu
prior_hessian::Multivariate NormalDist::check_mu
prior_hessian::Multivariate NormalDist::set_sigma

Here is the caller graph for this function:

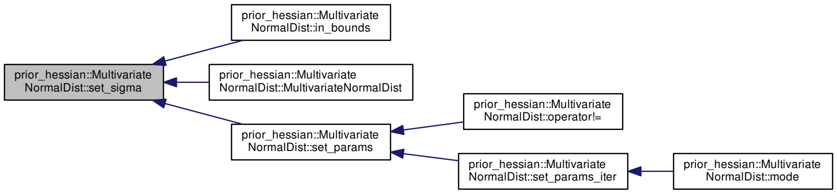

prior_hessian::Multivariate NormalDist::set_params_iter
prior_hessian::Multivariate NormalDist::mode

7.48.4.37 template<IdxT Ndim> template<class Mat > void prior_hessian::MultivariateNormalDist< Ndim >::set_sigma (Mat && *val*)

Definition at line 399 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), prior_hessian::MultivariateNormalDist< Ndim >::MultivariateNormalDist(), and prior_hessian::MultivariateNormalDist< Ndim >::set_params().

Here is the caller graph for this function:

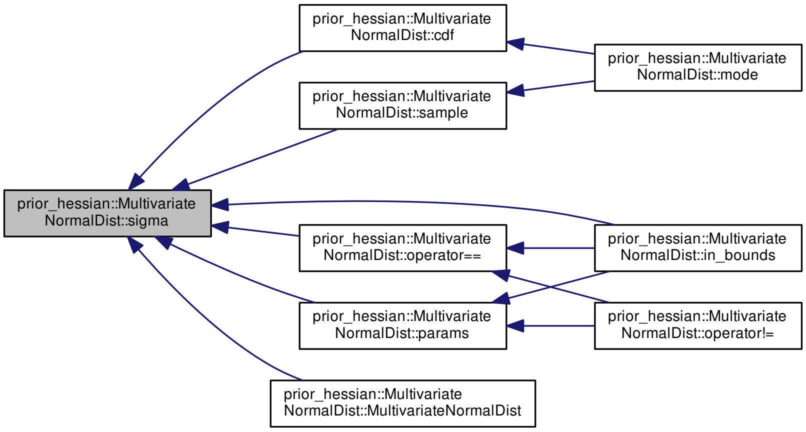

prior_hessian::Multivariate NormalDist::set_sigma
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::MultivariateNormalDist
prior_hessian::Multivariate NormalDist::set_params
prior_hessian::Multivariate NormalDist::operator!=
prior_hessian::Multivariate NormalDist::set_params_iter
prior_hessian::Multivariate NormalDist::mode

7.48.4.38 template<IdxT Ndim> const MultivariateNormalDist< Ndim >::NdimMatT & prior_hessian::MultivariateNormalDist< Ndim >::sigma ( ) const

Definition at line 379 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::cdf(), prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), prior_hessian::MultivariateNormalDist< Ndim >::MultivariateNormalDist(), prior_hessian↩ ::MultivariateNormalDist< Ndim >::operator==(), prior_hessian::MultivariateNormalDist< Ndim >::params(), and prior_hessian::MultivariateNormalDist< Ndim >::sample().

Here is the caller graph for this function:

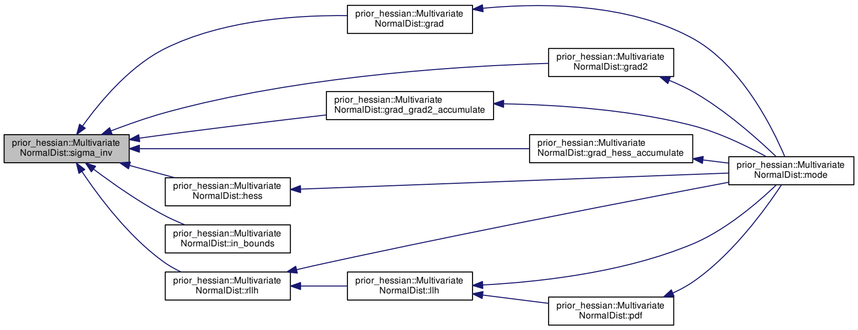

prior_hessian::Multivariate NormalDist::sigma
prior_hessian::Multivariate NormalDist::cdf
prior_hessian::Multivariate NormalDist::sample
prior_hessian::Multivariate NormalDist::operator==
prior_hessian::Multivariate NormalDist::params
prior_hessian::Multivariate NormalDist::MultivariateNormalDist
prior_hessian::Multivariate NormalDist::mode
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::operator!=

7.48.4.39 template<IdxT Ndim> const MultivariateNormalDist< Ndim >::NdimMatT & prior_hessian::MultivariateNormalDist< Ndim >::sigma_inv ( ) const

Definition at line 384 of file MultivariateNormalDist.h.

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::grad(), prior_hessian::MultivariateNormalDist< Ndim >::grad2(), prior_hessian::MultivariateNormalDist< Ndim >::grad_grad2_accumulate(), prior_hessian::MultivariateNormalDist< Ndim >::grad_hess_accumulate(), prior_hessian::MultivariateNormalDist< Ndim >::hess(), prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), and prior_hessian::MultivariateNormalDist< Ndim >::rllh().

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::sigma_inv
prior_hessian::Multivariate NormalDist::grad
prior_hessian::Multivariate NormalDist::grad2
prior_hessian::Multivariate NormalDist::grad_grad2_accumulate
prior_hessian::Multivariate NormalDist::grad_hess_accumulate
prior_hessian::Multivariate NormalDist::mode
prior_hessian::Multivariate NormalDist::hess
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::pdf

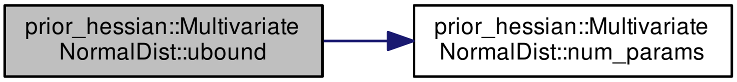
7.48.4.40 template<IdxT Ndim> const MultivariateNormalDist< Ndim >::NdimVecT & prior_hessian::MultivariateNormalDist< Ndim >::ubound ( ) [static]

Definition at line 305 of file MultivariateNormalDist.h.

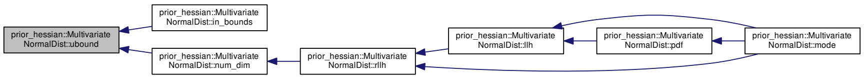
References prior_hessian::MultivariateNormalDist< Ndim >::num_params().

Referenced by prior_hessian::MultivariateNormalDist< Ndim >::in_bounds(), and prior_hessian::MultivariateNormalDist< Ndim >::num_dim().

Here is the call graph for this function:


prior_hessian::Multivariate NormalDist::ubound
prior_hessian::Multivariate NormalDist::num_params

Here is the caller graph for this function:


prior_hessian::Multivariate NormalDist::ubound
prior_hessian::Multivariate NormalDist::in_bounds
prior_hessian::Multivariate NormalDist::num_dim
prior_hessian::Multivariate NormalDist::rllh
prior_hessian::Multivariate NormalDist::llh
prior_hessian::Multivariate NormalDist::pdf
prior_hessian::Multivariate NormalDist::mode

The documentation for this class was generated from the following file:

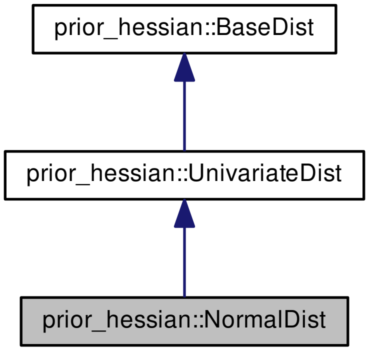
- MultivariateNormalDist.h

7.49 prior_hessian::NormalDist Class Reference

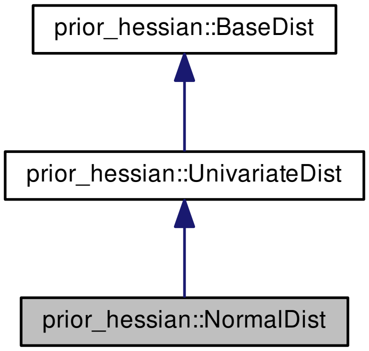
Normal distribution with truncation.

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
NormalDist.h>
```

Inheritance diagram for prior_hessian::NormalDist:



Collaboration diagram for prior_hessian::NormalDist:



Public Types

- using NparamsVecT = arma::Col< double >::fixed< _num_params >

Public Member Functions

- NormalDist (double mu, double sigma)
- NormalDist ()
- template<class Vec , meta::ConstructableIfNotSelfT< Vec, NormalDist > = true>
  NormalDist (const Vec &params)
- double mu () const
- double sigma () const
- void set_mu (double val)
- void set_sigma (double val)
- bool operator== (const NormalDist &o) const
- bool operator!= (const NormalDist &o) const
- double get_param (int idx) const
- void set_param (int idx, double val)
- NparamsVecT params () const
- void set_params (double mu, double sigma)
- template<class Vec >
  void set_params (const Vec &p)
- double mean () const
- double median () const
- double cdf (double x) const
- double icdf (double u) const
- double pdf (double x) const
- double llh (double x) const
- double rllh (double x) const

- double grad (double x) const
- double grad2 (double x) const
- void grad_grad2_accumulate (double x, double &g, double &g2) const
- template<class RngT >
  double sample (RngT &rng) const
- template<class IterT >
  void append_params_iter (IterT &params) const
- template<class IterT >
  void set_params_iter (IterT &params)

Static Public Member Functions

- static constexpr IdxT num_params ()
- static constexpr double lbound ()
- static constexpr double ubound ()
- static bool in_bounds (double u)
- static const StringVecT & param_names ()
- static const NparamsVecT & param_lbound ()
- static const NparamsVecT & param_ubound ()
- static bool check_params (double mu, double sigma)
- template<class Vec >
  static bool check_params (const Vec &p)
- template<class IterT >
  static bool check_params_iter (IterT &params)
- static constexpr IdxT num_dim ()

Static Protected Member Functions

- static void check_bounds (double lbound, double ubound)

7.49.1 Detailed Description

Normal distribution with truncation.

Definition at line 21 of file NormalDist.h.

7.49.2 Member Typedef Documentation

7.49.2.1 using **prior_hessian::NormalDist::NparamsVecT** = arma::Col<double>::fixed<_num_params>

Definition at line 25 of file NormalDist.h.

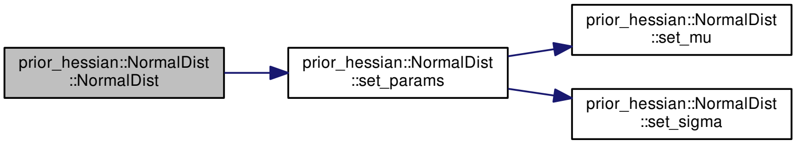
7.49.3 Constructor & Destructor Documentation

7.49.3.1 prior_hessian::NormalDist::NormalDist (double *mu,* double *sigma*)

Definition at line 27 of file NormalDist.cpp.

References set_params().

Here is the call graph for this function:

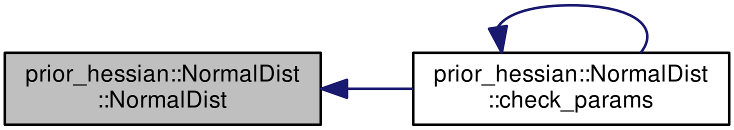

prior_hessian::NormalDist
::NormalDist
prior_hessian::NormalDist
::set_params
prior_hessian::NormalDist
::set_mu
prior_hessian::NormalDist
::set_sigma

7.49.3.2 prior_hessian::NormalDist::NormalDist ( ) [inline]

Definition at line 43 of file NormalDist.h.

Referenced by check_params().

Here is the caller graph for this function:



7.49.3.3 template<class Vec , meta::ConstructableIfNotSelfT< Vec, NormalDist > = true> prior_hessian::NormalDist::NormalDist (const Vec & *params*) [inline], [explicit]

Definition at line 45 of file NormalDist.h.

7.49.4 Member Function Documentation

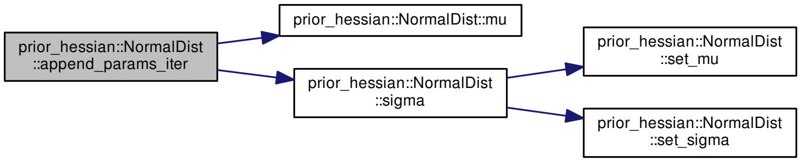
7.49.4.1 template<class IterT > void prior_hessian::NormalDist::append_params_iter (IterT & *params*) const

Definition at line 205 of file NormalDist.h.

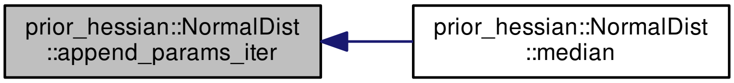
References mu(), and sigma().

Referenced by median().

Here is the call graph for this function:


prior_hessian::NormalDist ::append_params_iter
prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

Here is the caller graph for this function:


prior_hessian::NormalDist ::append_params_iter
prior_hessian::NormalDist ::median

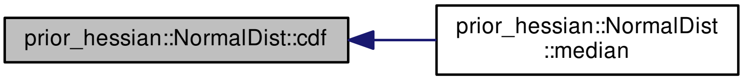
7.49.4.2 double prior_hessian::NormalDist::cdf (double *x*) const

Definition at line 42 of file NormalDist.cpp.

References prior_hessian::constants::sqrt2_inv.

Referenced by median().

Here is the caller graph for this function:

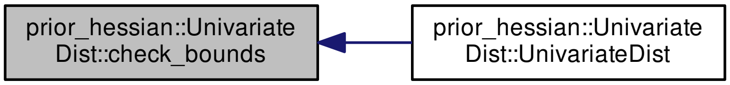

prior_hessian::NormalDist::cdf
prior_hessian::NormalDist ::median

7.49.4.3 void prior_hessian::UnivariateDist::check_bounds (double *lbound,* double *ubound*) [static], [protected], [inherited]

Definition at line 17 of file UnivariateDist.cpp.

Referenced by prior_hessian::UnivariateDist::UnivariateDist().

Here is the caller graph for this function:

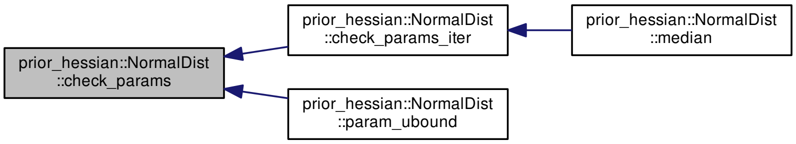

prior_hessian::Univariate Dist::check_bounds
prior_hessian::Univariate Dist::UnivariateDist

7.49.4.4 bool prior_hessian::NormalDist::check_params (double *mu,* double *sigma*) [inline], [static]

Definition at line 121 of file NormalDist.h.

Referenced by check_params_iter(), and param_ubound().

Here is the caller graph for this function:


prior_hessian::NormalDist ::check_params
prior_hessian::NormalDist ::check_params_iter
prior_hessian::NormalDist ::median
prior_hessian::NormalDist ::param_ubound

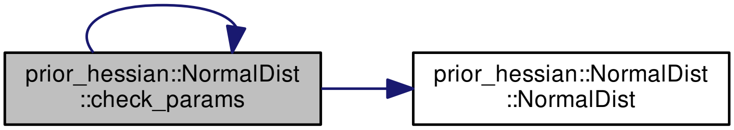
7.49.4.5 template<class Vec > static bool prior_hessian::NormalDist::check_params (const Vec & *p*) [inline], [static]

Definition at line 39 of file NormalDist.h.

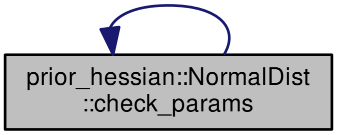
References check_params(), and NormalDist().

Referenced by check_params().

Here is the call graph for this function:



Here is the caller graph for this function:



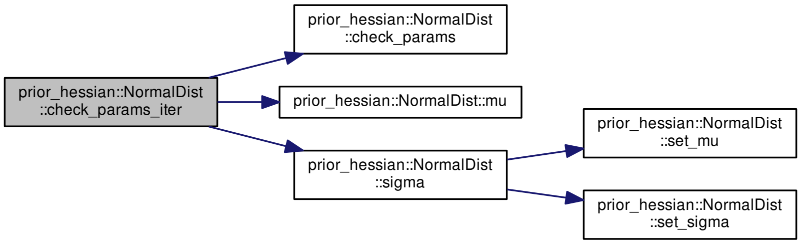
7.49.4.6 template<class IterT > bool prior_hessian::NormalDist::check_params_iter (IterT & *params*) [static]

Definition at line 197 of file NormalDist.h.

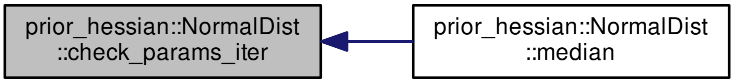
References check_params(), mu(), and sigma().

Referenced by median().

Here is the call graph for this function:


prior_hessian::NormalDist
::check_params_iter
prior_hessian::NormalDist
::check_params
prior_hessian::NormalDist::mu
prior_hessian::NormalDist
::sigma
prior_hessian::NormalDist
::set_mu
prior_hessian::NormalDist
::set_sigma

Here is the caller graph for this function:


prior_hessian::NormalDist ::check_params_iter
prior_hessian::NormalDist ::median

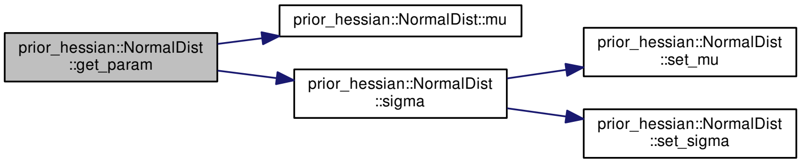
7.49.4.7 double prior_hessian::NormalDist::get_param (int *idx*) const [inline]

Definition at line 127 of file NormalDist.h.

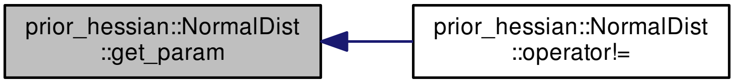
References mu(), and sigma().

Referenced by operator!=().

Here is the call graph for this function:


prior_hessian::NormalDist ::get_param
prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

Here is the caller graph for this function:


prior_hessian::NormalDist ::get_param
prior_hessian::NormalDist ::operator!=

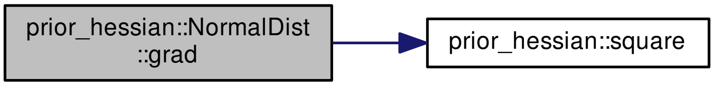
7.49.4.8 double prior_hessian::NormalDist::grad (double *x*) const [inline]

Definition at line 168 of file NormalDist.h.

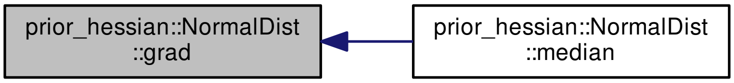
References prior_hessian::square().

Referenced by median().

Here is the call graph for this function:



Here is the caller graph for this function:


prior_hessian::NormalDist ::grad
prior_hessian::NormalDist ::median

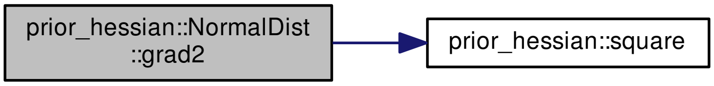
7.49.4.9 double prior_hessian::NormalDist::grad2 (double *x*) const [inline]

Definition at line 174 of file NormalDist.h.

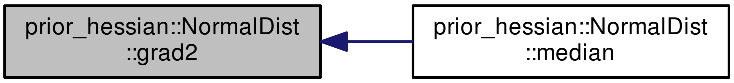
References prior_hessian::square().

Referenced by median().

Here is the call graph for this function:



Here is the caller graph for this function:



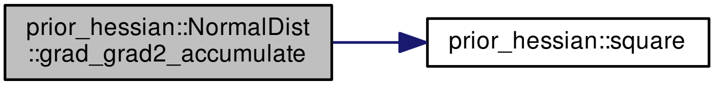
7.49.4.10 void prior_hessian::NormalDist::grad_grad2_accumulate (double *x*, double & *g*, double & *g2*) const [inline]

Definition at line 180 of file NormalDist.h.

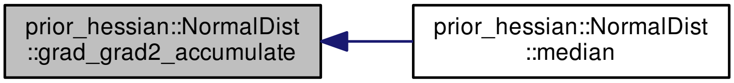
References prior_hessian::square().

Referenced by median().

Here is the call graph for this function:



Here is the caller graph for this function:



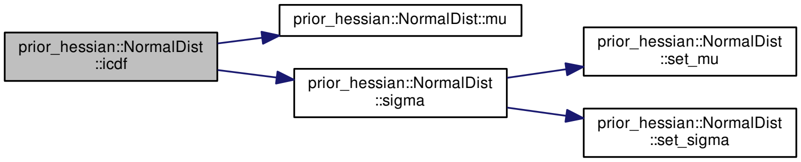
7.49.4.11 double prior_hessian::NormalDist::icdf (double *u*) const

Definition at line 47 of file NormalDist.cpp.

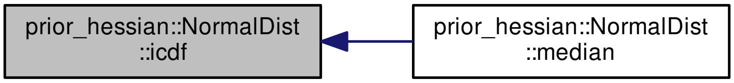
References mu(), sigma(), and prior_hessian::constants::sqrt2.

Referenced by median().

Here is the call graph for this function:


prior_hessian::NormalDist
::icdf
prior_hessian::NormalDist::mu
prior_hessian::NormalDist
::sigma
prior_hessian::NormalDist
::set_mu
prior_hessian::NormalDist
::set_sigma

Here is the caller graph for this function:

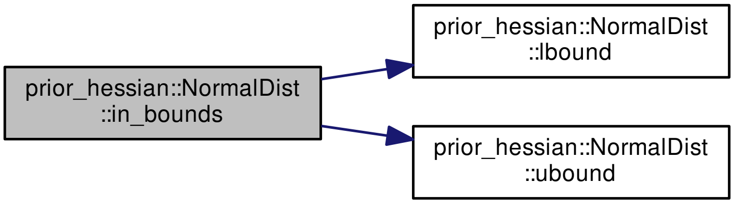


7.49.4.12 static bool prior_hessian::NormalDist::in_bounds (double *u*) [inline], [static]

Definition at line 31 of file NormalDist.h.

References lbound(), and ubound().

Here is the call graph for this function:

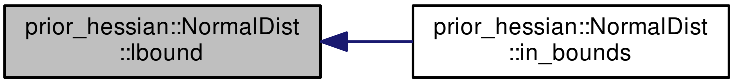

prior_hessian::NormalDist
::in_bounds
prior_hessian::NormalDist
::lbound
prior_hessian::NormalDist
::ubound

7.49.4.13 static constexpr double prior_hessian::NormalDist::lbound ( ) [inline], [static]

Definition at line 29 of file NormalDist.h.

Referenced by in_bounds().

Here is the caller graph for this function:



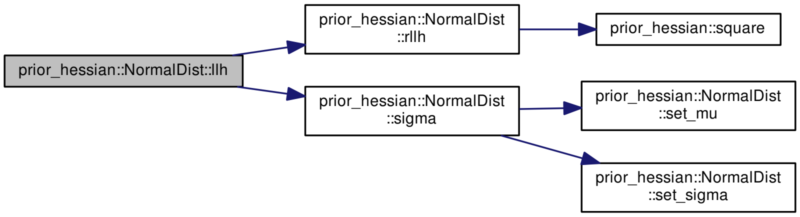
7.49.4.14 double prior_hessian::NormalDist::llh (double *x*) const

Definition at line 72 of file NormalDist.cpp.

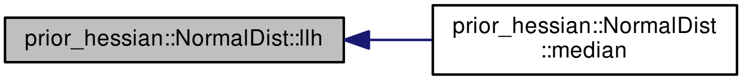
References prior_hessian::constants::log2pi, rllh(), and sigma().

Referenced by median().

Here is the call graph for this function:


prior_hessian::NormalDist::llh
prior_hessian::NormalDist
::rllh
prior_hessian::NormalDist
::sigma
prior_hessian::square
prior_hessian::NormalDist
::set_mu
prior_hessian::NormalDist
::set_sigma

Here is the caller graph for this function:

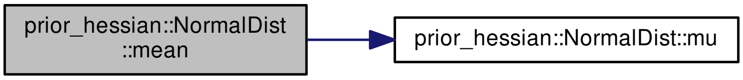


7.49.4.15 double prior_hessian::NormalDist::mean ( ) const [inline]

Definition at line 62 of file NormalDist.h.

References mu().

Here is the call graph for this function:

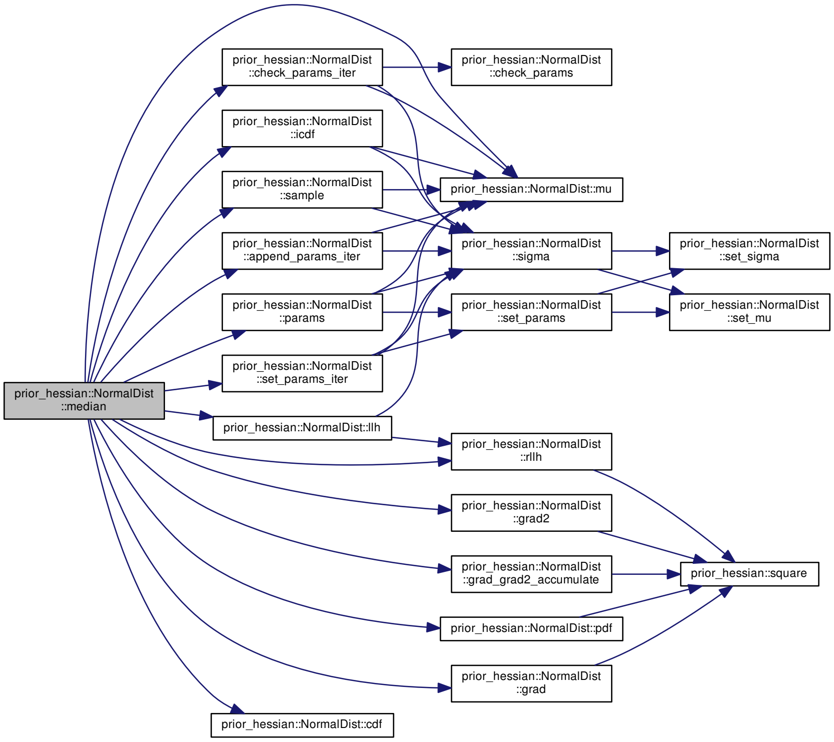

prior_hessian::NormalDist ::mean
prior_hessian::NormalDist::mu

7.49.4.16 double prior_hessian::NormalDist::median ( ) const [inline]

Definition at line 63 of file NormalDist.h.

References append_params_iter(), cdf(), check_params_iter(), grad(), grad2(), grad_grad2_accumulate(), icdf(), llh(), mu(), params(), pdf(), rllh(), sample(), and set_params_iter().

Here is the call graph for this function:

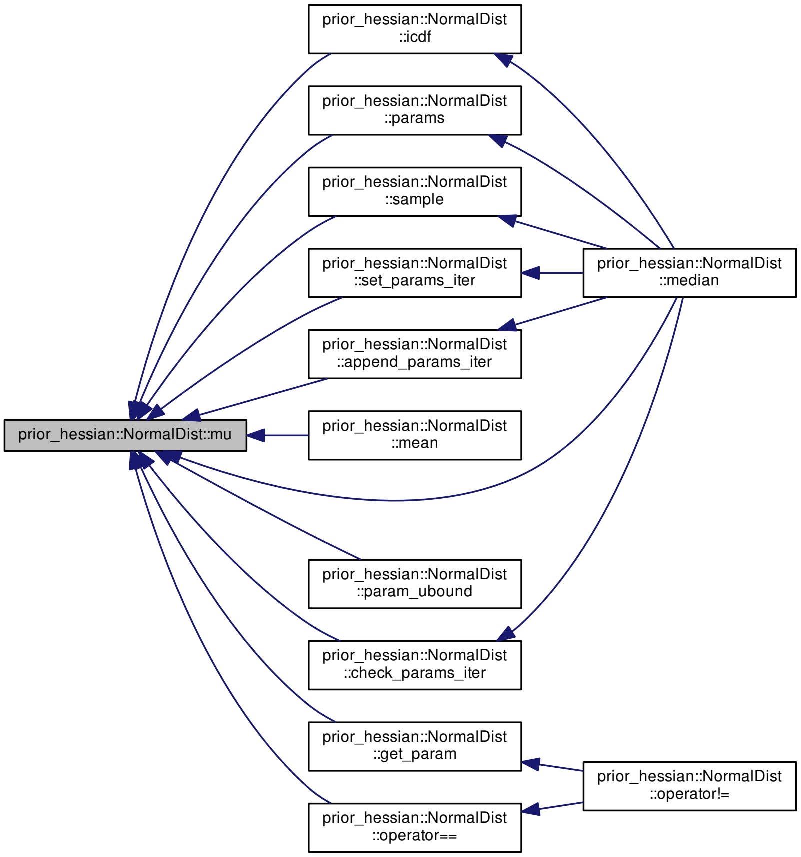

prior_hessian::NormalDist ::median
prior_hessian::NormalDist ::check_params_iter
prior_hessian::NormalDist ::check_params
prior_hessian::NormalDist ::icdf
prior_hessian::NormalDist ::sample
prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::append_params_iter
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_sigma
prior_hessian::NormalDist ::params
prior_hessian::NormalDist ::set_params
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_params_iter
prior_hessian::NormalDist::llh
prior_hessian::NormalDist ::rllh
prior_hessian::NormalDist ::grad2
prior_hessian::NormalDist ::grad_grad2_accumulate
prior_hessian::square
prior_hessian::NormalDist::pdf
prior_hessian::NormalDist ::grad
prior_hessian::NormalDist::cdf

7.49.4.17 double prior_hessian::NormalDist::mu ( ) const [inline]

Definition at line 48 of file NormalDist.h.

Referenced by append_params_iter(), check_params_iter(), get_param(), icdf(), mean(), median(), operator==(), param_ubound(), params(), sample(), and set_params_iter().

Here is the caller graph for this function:


prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::icdf
prior_hessian::NormalDist ::params
prior_hessian::NormalDist ::sample
prior_hessian::NormalDist ::set_params_iter
prior_hessian::NormalDist ::append_params_iter
prior_hessian::NormalDist ::mean
prior_hessian::NormalDist ::param_ubound
prior_hessian::NormalDist ::check_params_iter
prior_hessian::NormalDist ::get_param
prior_hessian::NormalDist ::operator==
prior_hessian::NormalDist ::median
prior_hessian::NormalDist ::operator!=

7.49.4.18 static constexpr IdxT prior_hessian::UnivariateDist::num_dim ( ) [inline], [static], [inherited]

Definition at line 17 of file UnivariateDist.h.

7.49.4.19 static constexpr IdxT prior_hessian::NormalDist::num_params ( ) [inline], [static]

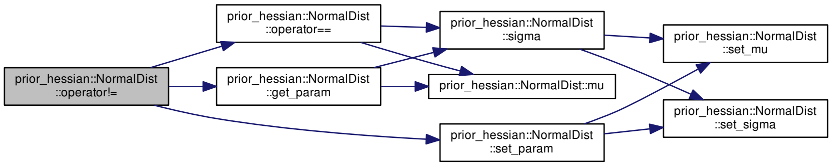
Definition at line 28 of file NormalDist.h.

7.49.4.20 bool prior_hessian::NormalDist::operator!= (const **NormalDist** & *o*) const [inline]

Definition at line 53 of file NormalDist.h.

References get_param(), operator==(), and set_param().

Here is the call graph for this function:


prior_hessian::NormalDist ::operator!=
prior_hessian::NormalDist ::operator==
prior_hessian::NormalDist ::get_param
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::set_param
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

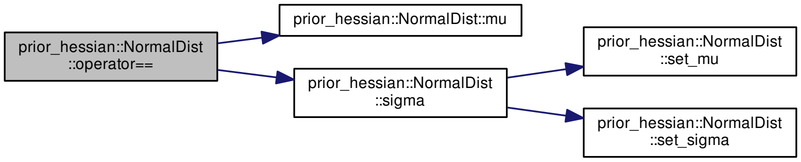
7.49.4.21 bool prior_hessian::NormalDist::operator== (const **NormalDist** & *o*) const [inline]

Definition at line 52 of file NormalDist.h.

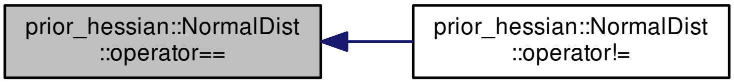
References mu(), and sigma().

Referenced by operator!=().

Here is the call graph for this function:


prior_hessian::NormalDist ::operator==
prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

Here is the caller graph for this function:


prior_hessian::NormalDist ::operator==
prior_hessian::NormalDist ::operator!=

7.49.4.22 static const NparamsVecT& prior_hessian::NormalDist::param_lbound ( ) [inline], [static]

Definition at line 34 of file NormalDist.h.

7.49.4.23 static const StringVecT& prior_hessian::NormalDist::param_names ( ) [inline], [static]

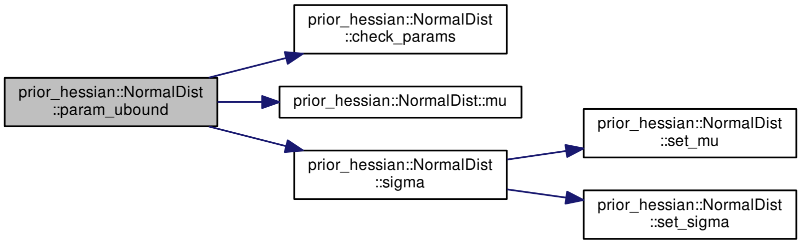
Definition at line 33 of file NormalDist.h.

7.49.4.24 static const NparamsVecT& prior_hessian::NormalDist::param_ubound ( ) [inline], [static]

Definition at line 35 of file NormalDist.h.

References check_params(), mu(), and sigma().

Here is the call graph for this function:


prior_hessian::NormalDist ::param_ubound
prior_hessian::NormalDist ::check_params
prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

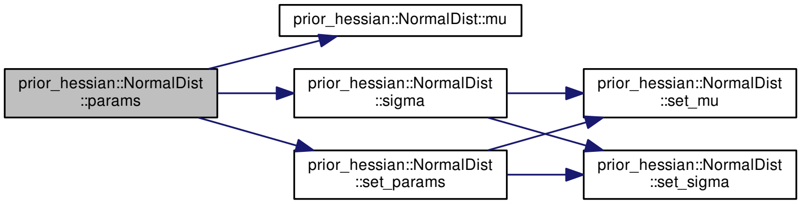
7.49.4.25 NparamsVecT prior_hessian::NormalDist::params ( ) const [inline]

Definition at line 57 of file NormalDist.h.

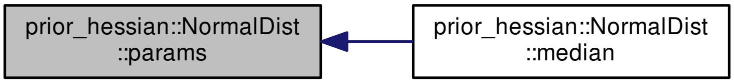
References mu(), set_params(), and sigma().

Referenced by median().

Here is the call graph for this function:


prior_hessian::NormalDist ::params
prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_params
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

Here is the caller graph for this function:


prior_hessian::NormalDist ::params
prior_hessian::NormalDist ::median

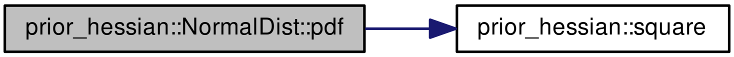
7.49.4.26 double prior_hessian::NormalDist::pdf (double *x*) const [inline]

Definition at line 156 of file NormalDist.h.

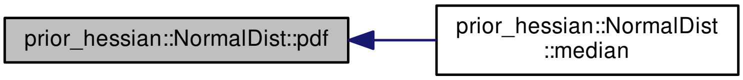
References prior_hessian::constants::sqrt2pi_inv, and prior_hessian::square().

Referenced by median().

Here is the call graph for this function:



Here is the caller graph for this function:


prior_hessian::NormalDist::pdf
prior_hessian::NormalDist ::median

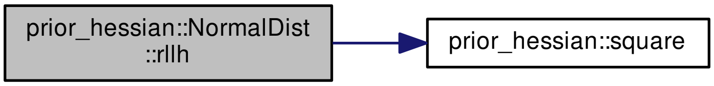
7.49.4.27 double prior_hessian::NormalDist::rllh (double *x*) const [inline]

Definition at line 162 of file NormalDist.h.

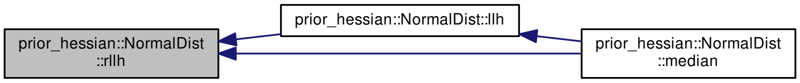
References prior_hessian::square().

Referenced by llh(), and median().

Here is the call graph for this function:



Here is the caller graph for this function:


prior_hessian::NormalDist ::rllh
prior_hessian::NormalDist::llh
prior_hessian::NormalDist ::median

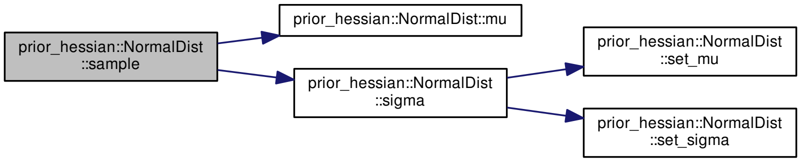
7.49.4.28 template<class RngT > double prior_hessian::NormalDist::sample (RngT & *rng*) const

Definition at line 188 of file NormalDist.h.

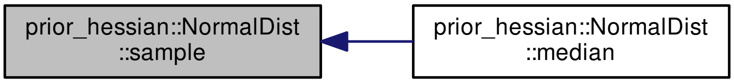
References mu(), and sigma().

Referenced by median().

Here is the call graph for this function:


prior_hessian::NormalDist ::sample
prior_hessian::NormalDist::mu
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

Here is the caller graph for this function:

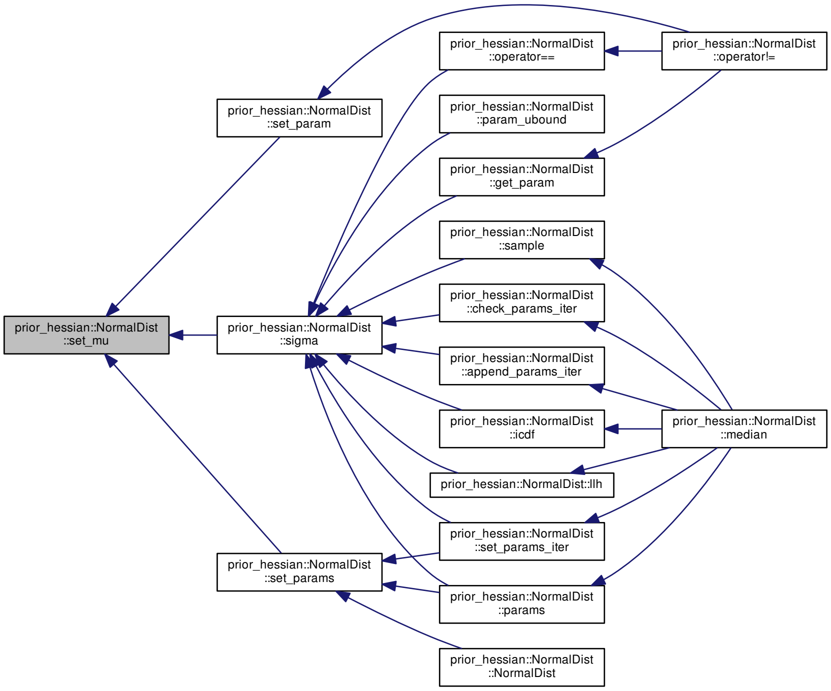

prior_hessian::NormalDist ::sample
prior_hessian::NormalDist ::median

7.49.4.29 void prior_hessian::NormalDist::set_mu (double *val*) [inline]

Definition at line 110 of file NormalDist.h.

Referenced by set_param(), set_params(), and sigma().

Here is the caller graph for this function:


prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_param
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_params
prior_hessian::NormalDist ::operator==
prior_hessian::NormalDist ::param_ubound
prior_hessian::NormalDist ::get_param
prior_hessian::NormalDist ::sample
prior_hessian::NormalDist ::check_params_iter
prior_hessian::NormalDist ::append_params_iter
prior_hessian::NormalDist ::icdf
prior_hessian::NormalDist::llh
prior_hessian::NormalDist ::set_params_iter
prior_hessian::NormalDist ::params
prior_hessian::NormalDist ::NormalDist
prior_hessian::NormalDist ::operator!=
prior_hessian::NormalDist ::median

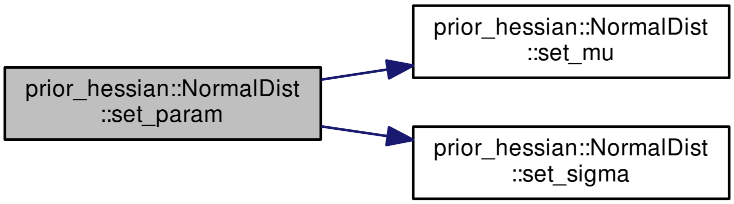
7.49.4.30 void prior_hessian::NormalDist::set_param (int *idx,* double *val*) [inline]

Definition at line 141 of file NormalDist.h.

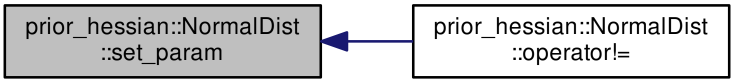
References set_mu(), and set_sigma().

Referenced by operator!=().

Here is the call graph for this function:


prior_hessian::NormalDist
::set_param
prior_hessian::NormalDist
::set_mu
prior_hessian::NormalDist
::set_sigma

Here is the caller graph for this function:



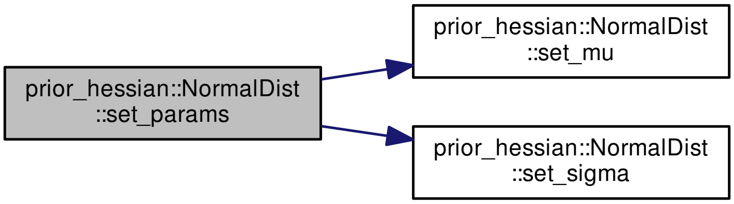
7.49.4.31 void prior_hessian::NormalDist::set_params (double *mu,* double *sigma*) [inline]

Definition at line 114 of file NormalDist.h.

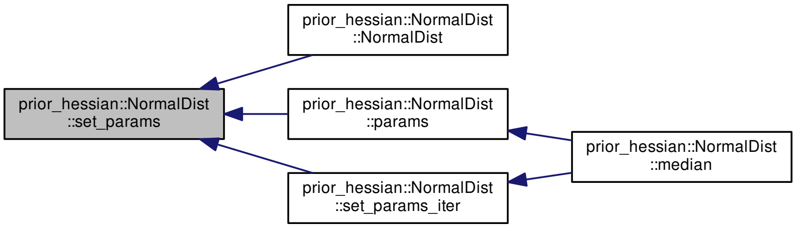
References set_mu(), and set_sigma().

Referenced by NormalDist(), params(), and set_params_iter().

Here is the call graph for this function:


prior_hessian::NormalDist ::set_params
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

Here is the caller graph for this function:


prior_hessian::NormalDist ::set_params
prior_hessian::NormalDist ::NormalDist
prior_hessian::NormalDist ::params
prior_hessian::NormalDist ::set_params_iter
prior_hessian::NormalDist ::median

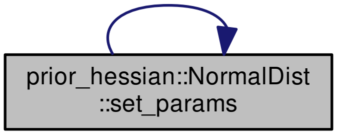
7.49.4.32 template<class Vec > void prior_hessian::NormalDist::set_params (const Vec & *p*) [inline]

Definition at line 60 of file NormalDist.h.

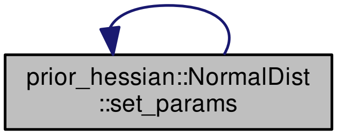
References set_params().

Referenced by set_params().

Here is the call graph for this function:



Here is the caller graph for this function:



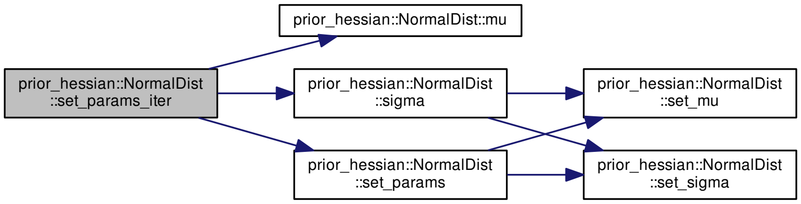
7.49.4.33 template<class IterT > void prior_hessian::NormalDist::set_params_iter (IterT & *params*)

Definition at line 213 of file NormalDist.h.

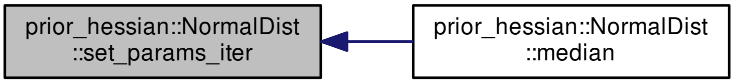
References mu(), set_params(), and sigma().

Referenced by median().

Here is the call graph for this function:


prior_hessian::NormalDist::mu
prior_hessian::NormalDist
::set_params_iter
prior_hessian::NormalDist
::sigma
prior_hessian::NormalDist
::set_mu
prior_hessian::NormalDist
::set_params
prior_hessian::NormalDist
::set_sigma

Here is the caller graph for this function:

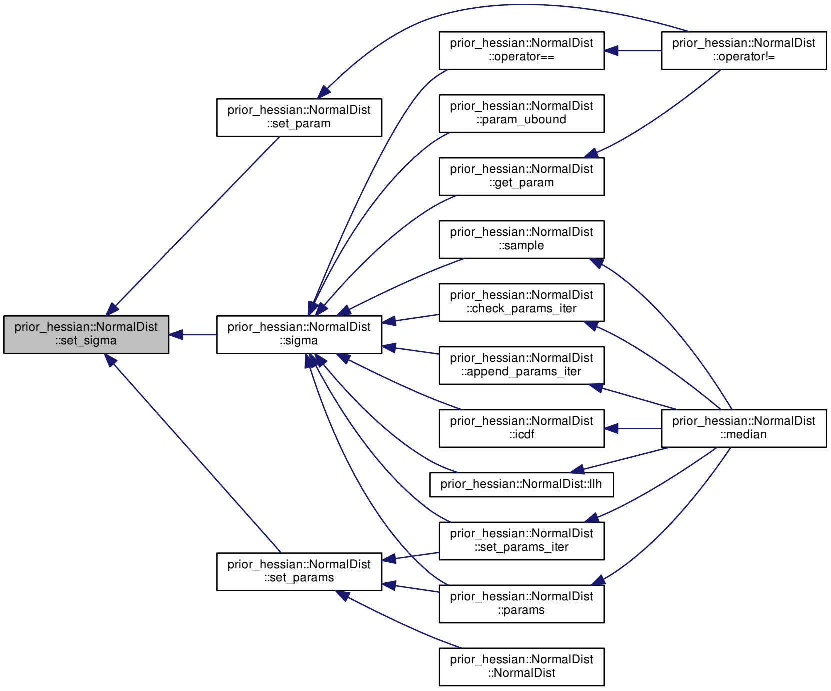


7.49.4.34 void prior_hessian::NormalDist::set_sigma (double *val*)

Definition at line 35 of file NormalDist.cpp.

Referenced by set_param(), set_params(), and sigma().

Here is the caller graph for this function:


prior_hessian::NormalDist ::operator==
prior_hessian::NormalDist ::operator!=
prior_hessian::NormalDist ::set_param
prior_hessian::NormalDist ::param_ubound
prior_hessian::NormalDist ::get_param
prior_hessian::NormalDist ::sample
prior_hessian::NormalDist ::set_sigma
prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::check_params_iter
prior_hessian::NormalDist ::append_params_iter
prior_hessian::NormalDist ::icdf
prior_hessian::NormalDist ::median
prior_hessian::NormalDist::llh
prior_hessian::NormalDist ::set_params_iter
prior_hessian::NormalDist ::set_params
prior_hessian::NormalDist ::params
prior_hessian::NormalDist ::NormalDist

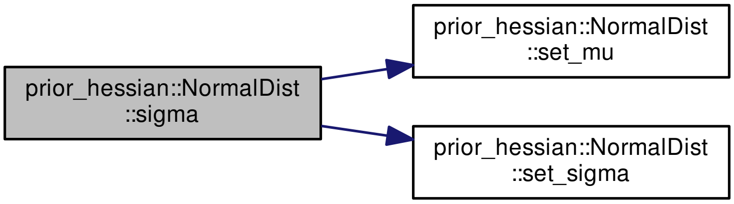
7.49.4.35 double prior_hessian::NormalDist::sigma ( ) const [inline]

Definition at line 49 of file NormalDist.h.

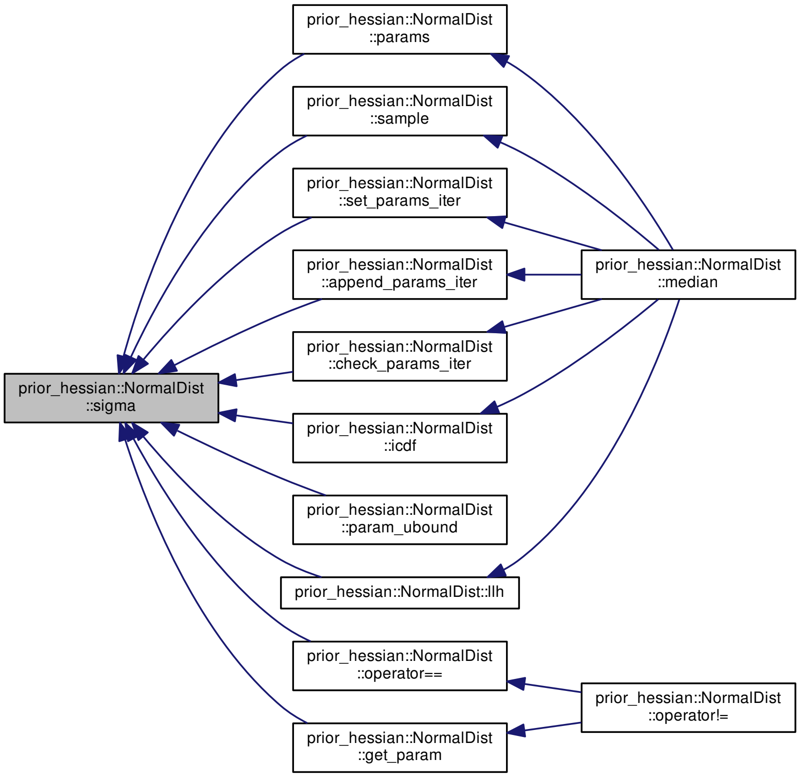
References set_mu(), and set_sigma().

Referenced by append_params_iter(), check_params_iter(), get_param(), icdf(), llh(), operator==(), param_ubound(), params(), sample(), and set_params_iter().

Here is the call graph for this function:


prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::set_mu
prior_hessian::NormalDist ::set_sigma

Here is the caller graph for this function:

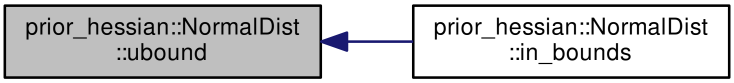

prior_hessian::NormalDist ::sigma
prior_hessian::NormalDist ::params
prior_hessian::NormalDist ::sample
prior_hessian::NormalDist ::set_params_iter
prior_hessian::NormalDist ::append_params_iter
prior_hessian::NormalDist ::check_params_iter
prior_hessian::NormalDist ::icdf
prior_hessian::NormalDist ::param_ubound
prior_hessian::NormalDist::llh
prior_hessian::NormalDist ::operator==
prior_hessian::NormalDist ::get_param
prior_hessian::NormalDist ::median
prior_hessian::NormalDist ::operator!=

7.49.4.36 static constexpr double prior_hessian::NormalDist::ubound ( ) [inline], [static]

Definition at line 30 of file NormalDist.h.

Referenced by in_bounds().

Here is the caller graph for this function:



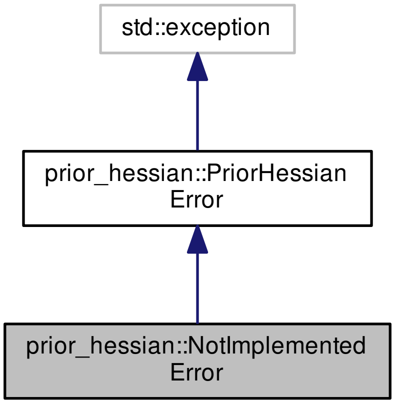
The documentation for this class was generated from the following files:

- NormalDist.h
- NormalDist.cpp

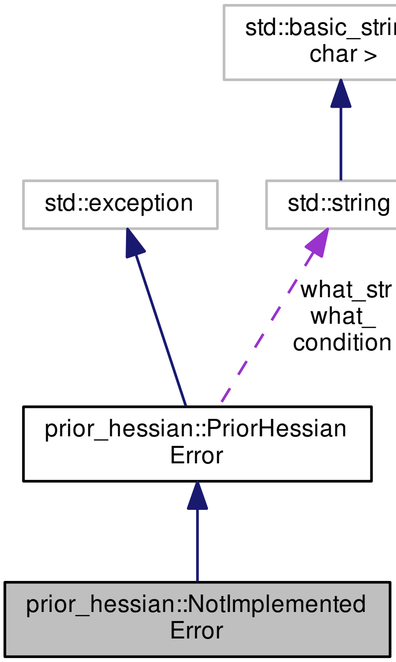
7.50 prior_hessian::NotImplementedError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::NotImplementedError:



Collaboration diagram for prior_hessian::NotImplementedError:



Public Member Functions

- NotImplementedError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.50.1 Detailed Description

Definition at line 114 of file PriorHessianError.h.

7.50.2 Constructor & Destructor Documentation

7.50.2.1 prior_hessian::NotImplementedError::NotImplementedError (std::string *message*) [inline]

Definition at line 116 of file PriorHessianError.h.

7.50.3 Member Function Documentation

7.50.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.50.4 Member Data Documentation

7.50.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.50.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.50.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

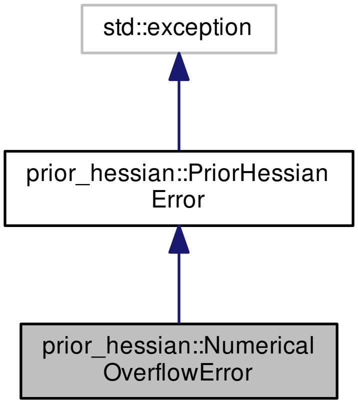
The documentation for this struct was generated from the following file:

- PriorHessianError.h

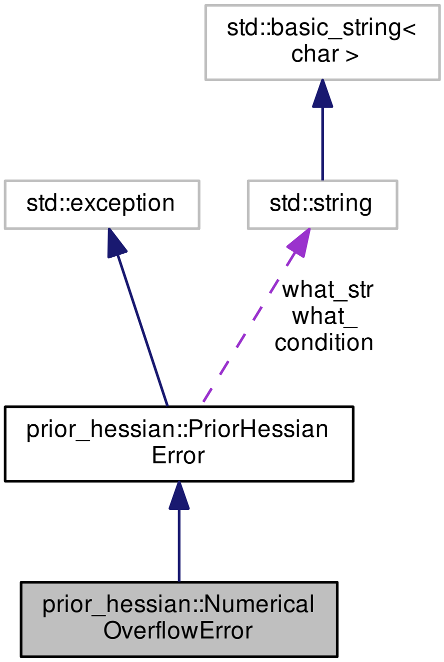
7.51 prior_hessian::NumericalOverflowError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::NumericalOverflowError:


std::exception
prior_hessian::PriorHessian Error
prior_hessian::Numerical OverflowError

Collaboration diagram for prior_hessian::NumericalOverflowError:



Public Member Functions

- NumericalOverflowError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.51.1 Detailed Description

Definition at line 109 of file PriorHessianError.h.

7.51.2 Constructor & Destructor Documentation

7.51.2.1 prior_hessian::NumericalOverflowError::NumericalOverflowError (std::string *message*) [inline]

Definition at line 111 of file PriorHessianError.h.

7.51.3 Member Function Documentation

7.51.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.51.4 Member Data Documentation

7.51.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.51.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.51.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

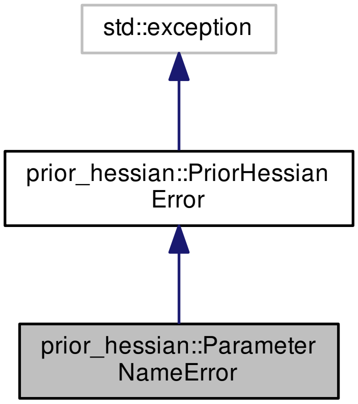
The documentation for this struct was generated from the following file:

- PriorHessianError.h

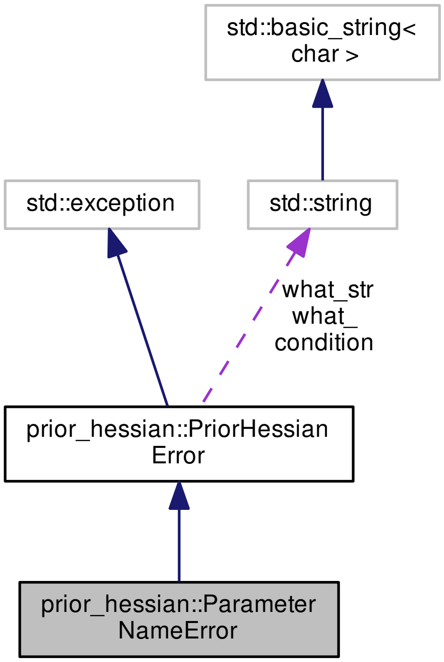
7.52 prior_hessian::ParameterNameError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::ParameterNameError:


std::exception
prior_hessian::PriorHessian Error
prior_hessian::Parameter NameError

Collaboration diagram for prior_hessian::ParameterNameError:



Public Member Functions

- ParameterNameError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.52.1 Detailed Description

Definition at line 85 of file PriorHessianError.h.

7.52.2 Constructor & Destructor Documentation

7.52.2.1 prior_hessian::ParameterNameError::ParameterNameError (std::string *message*) [inline]

Definition at line 87 of file PriorHessianError.h.

7.52.3 Member Function Documentation

7.52.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.52.4 Member Data Documentation

7.52.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.52.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.52.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

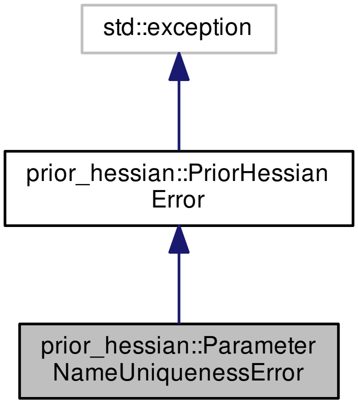
The documentation for this struct was generated from the following file:

- PriorHessianError.h

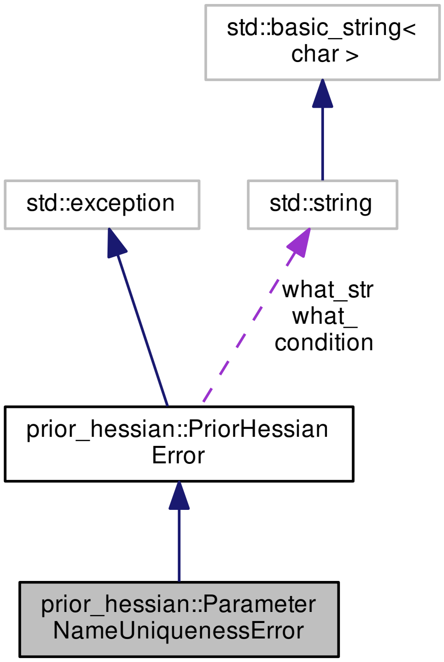
7.53 prior_hessian::ParameterNameUniquenessError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::ParameterNameUniquenessError:



Collaboration diagram for prior_hessian::ParameterNameUniquenessError:


std::basic_string< char >
std::exception
std::string
what_str
what_
condition
prior_hessian::PriorHessian Error
prior_hessian::Parameter NameUniquenessError

Public Member Functions

- ParameterNameUniquenessError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.53.1 Detailed Description

Definition at line 89 of file PriorHessianError.h.

7.53.2 Constructor & Destructor Documentation

7.53.2.1 prior_hessian::ParameterNameUniquenessError::ParameterNameUniquenessError (std::string *message*) [inline]

Definition at line 91 of file PriorHessianError.h.

7.53.3 Member Function Documentation

7.53.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.53.4 Member Data Documentation

7.53.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.53.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.53.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

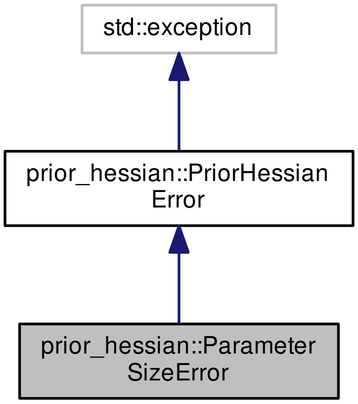
The documentation for this struct was generated from the following file:

- PriorHessianError.h

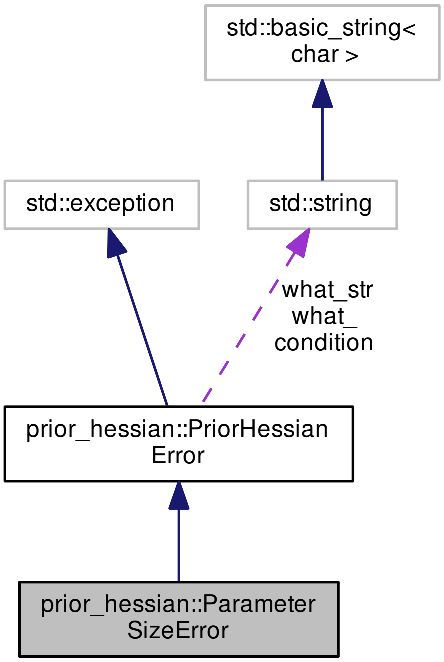
7.54 prior_hessian::ParameterSizeError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↵
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::ParameterSizeError:



Collaboration diagram for prior_hessian::ParameterSizeError:



Public Member Functions

- ParameterSizeError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.54.1 Detailed Description

Definition at line 75 of file PriorHessianError.h.

7.54.2 Constructor & Destructor Documentation

7.54.2.1 prior_hessian::ParameterSizeError::ParameterSizeError (std::string *message*) [inline]

Definition at line 77 of file PriorHessianError.h.

7.54.3 Member Function Documentation

7.54.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.54.4 Member Data Documentation

7.54.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.54.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.54.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

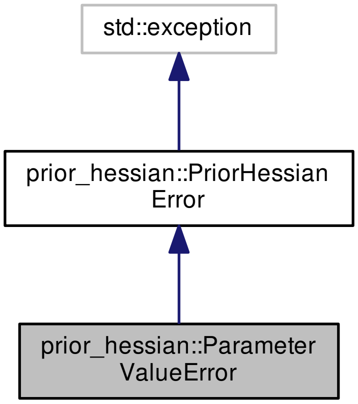
The documentation for this struct was generated from the following file:

- PriorHessianError.h

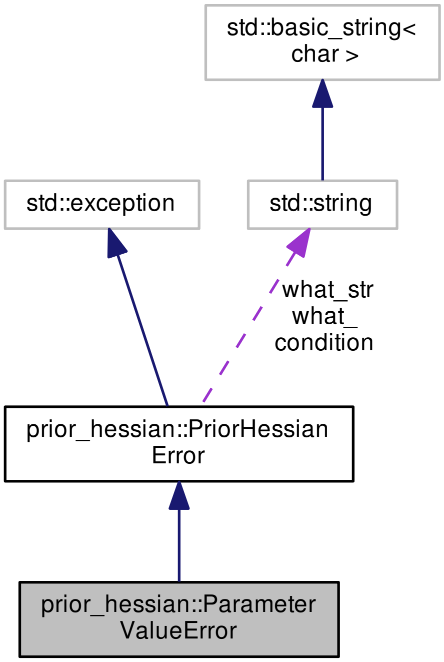
7.55 prior_hessian::ParameterValueError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::ParameterValueError:


std::exception
prior_hessian::PriorHessian Error
prior_hessian::Parameter ValueError

Collaboration diagram for prior_hessian::ParameterValueError:



Public Member Functions

- ParameterValueError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.55.1 Detailed Description

Definition at line 80 of file PriorHessianError.h.

7.55.2 Constructor & Destructor Documentation

7.55.2.1 prior_hessian::ParameterValueError::ParameterValueError (std::string *message*) [inline]

Definition at line 82 of file PriorHessianError.h.

7.55.3 Member Function Documentation

7.55.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.55.4 Member Data Documentation

7.55.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.55.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.55.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

The documentation for this struct was generated from the following file:

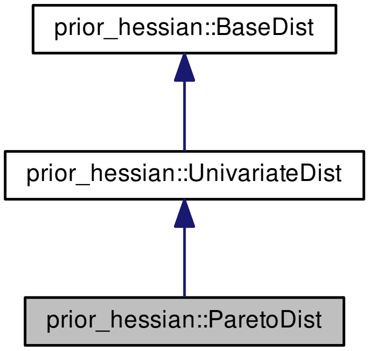
- PriorHessianError.h

7.56 prior_hessian::ParetoDist Class Reference

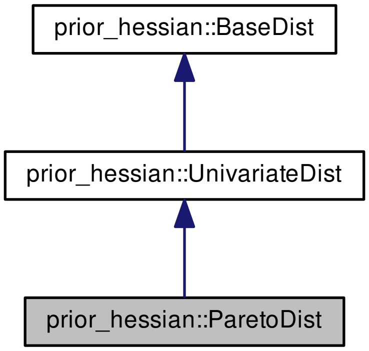
Pareto dist with infinite upper bound.

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↵
ParetoDist.h>
```

Inheritance diagram for prior_hessian::ParetoDist:



Collaboration diagram for prior_hessian::ParetoDist:



Public Types

- using NparamsVecT = arma::Col< double >::fixed< _num_params >

Public Member Functions

- bool in_bounds (double u) const
- ParetoDist ()
- ParetoDist (double min, double alpha)
- template<class Vec , meta::ConstructableIfNotSelfT< Vec, ParetoDist > = true>
  ParetoDist (const Vec &params)
- double get_param (int idx) const
- void set_param (int idx, double val)
- NparamsVecT params () const
- void set_params (double min, double alpha)
- template<class Vec >
  void set_params (const Vec &p)
- bool operator== (const ParetoDist &o) const
- bool operator!= (const ParetoDist &o) const
- double alpha () const
- double min () const
- void set_min (double val)
- void set_alpha (double val)
- double lbound () const
- void set_lbound (double lbound)
- double mean () const
- double median () const
- double cdf (double x) const
- double icdf (double u) const

- double pdf (double x) const
- double llh (double x) const
- double rllh (double x) const
- double grad (double x) const
- double grad2 (double x) const
- void grad_grad2_accumulate (double x, double &g, double &g2) const
- template<class RngT >
  double sample (RngT &rng) const
- template<class IterT >
  void set_params_iter (IterT &params)

Static Public Member Functions

- static constexpr IdxT num_params ()
- static constexpr double global_lbound ()
- static constexpr double ubound ()
- static const StringVecT & param_names ()
- static const NparamsVecT & param_lbound ()
- static const NparamsVecT & param_ubound ()
- static bool check_params (double min, double alpha)
- template<class Vec >
  static bool check_params (const Vec &params)
- static bool check_lbound (double min)
- template<class IterT >
  static bool check_params_iter (IterT &params)
- static constexpr IdxT num_dim ()

Static Protected Member Functions

- static void check_bounds (double lbound, double ubound)

7.56.1 Detailed Description

Pareto dist with infinite upper bound.

Definition at line 20 of file ParetoDist.h.

7.56.2 Member Typedef Documentation

7.56.2.1 using **prior_hessian::ParetoDist::NparamsVecT** = arma::Col<double>::fixed<_num_params>

Definition at line 24 of file ParetoDist.h.

7.56.3 Constructor & Destructor Documentation

7.56.3.1 prior_hessian::ParetoDist::ParetoDist ( ) [inline]

Definition at line 41 of file ParetoDist.h.

7.56.3.2 prior_hessian::ParetoDist::ParetoDist (double *min*, double *alpha*)

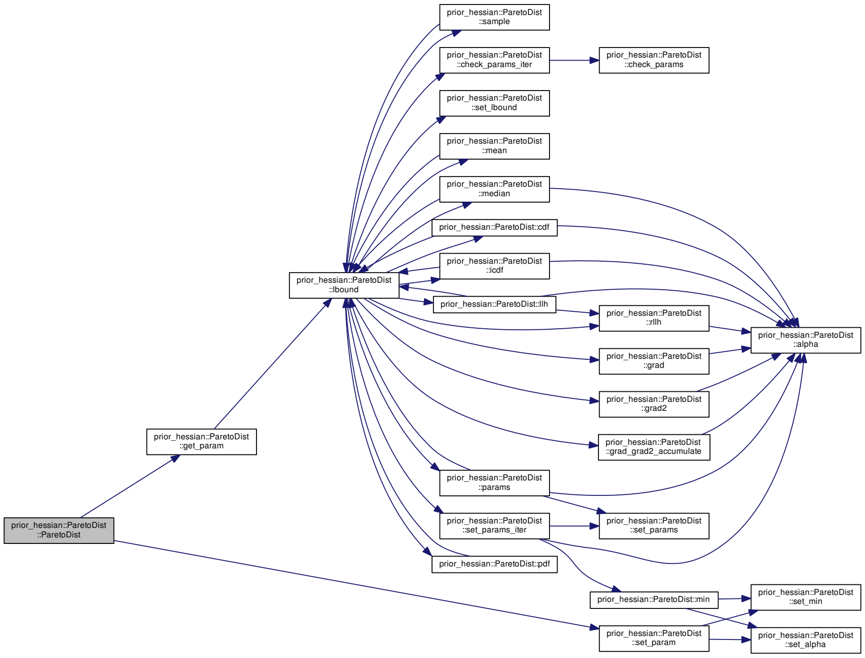
Definition at line 21 of file ParetoDist.cpp.

7.56.3.3 template<class Vec , meta::ConstructableIfNotSelfT< Vec, ParetoDist > = true> prior_hessian::ParetoDist::ParetoDist (const Vec & *params*) [inline], [explicit]

Definition at line 44 of file ParetoDist.h.

References get_param(), and set_param().

Here is the call graph for this function:


prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist ::set_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist ::set_param
prior_hessian::ParetoDist ::set_alpha

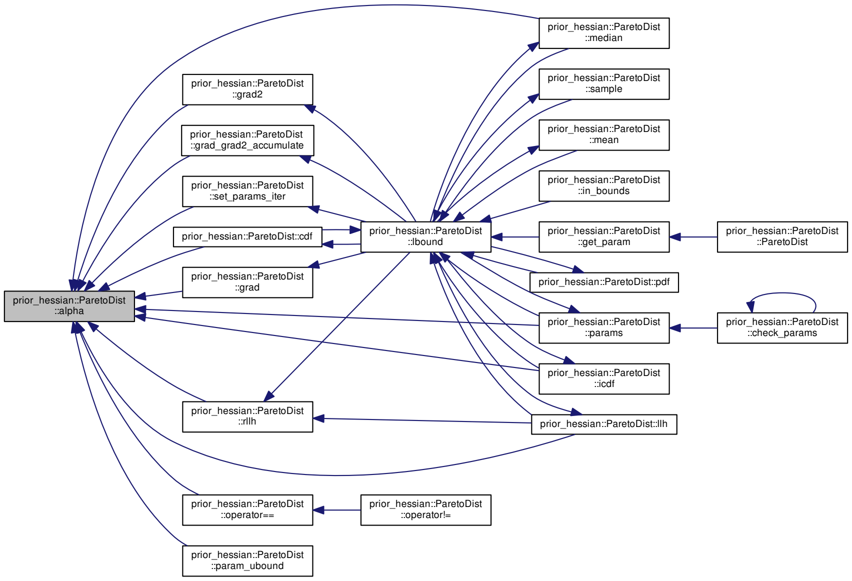
7.56.4 Member Function Documentation

7.56.4.1 double prior_hessian::ParetoDist::alpha ( ) const [inline]

Definition at line 55 of file ParetoDist.h.

Referenced by cdf(), grad(), grad2(), grad_grad2_accumulate(), icdf(), llh(), median(), operator==(), param_ubound(), params(), rllh(), and set_params_iter().

Here is the caller graph for this function:


prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::operator==
prior_hessian::ParetoDist ::operator!=
prior_hessian::ParetoDist ::param_ubound

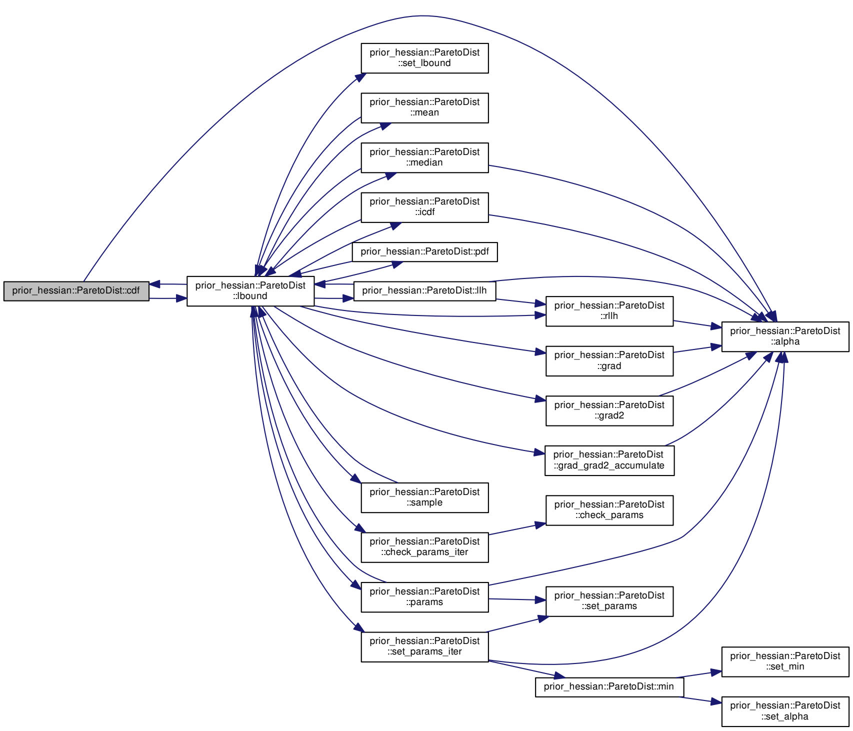
7.56.4.2 double prior_hessian::ParetoDist::cdf (double *x*) const [inline]

Definition at line 155 of file ParetoDist.h.

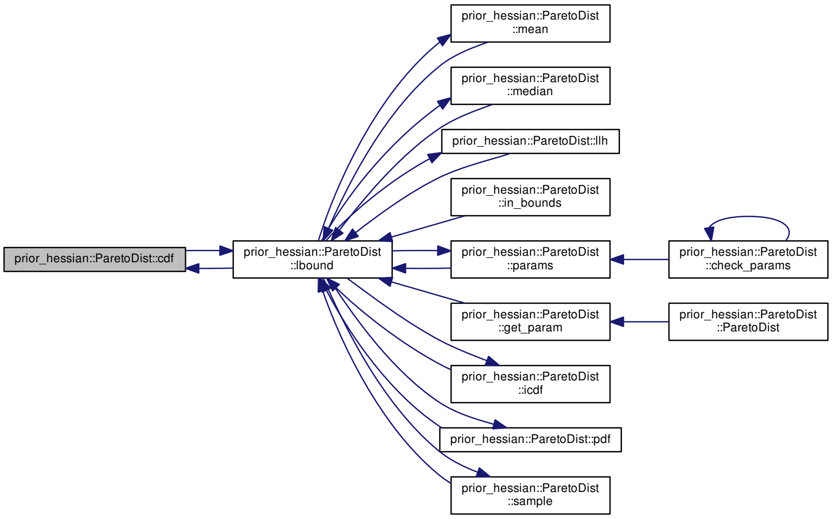
References alpha(), and lbound().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist::set_lbound
prior_hessian::ParetoDist::mean
prior_hessian::ParetoDist::median
prior_hessian::ParetoDist::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist::lbound
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist::rllh
prior_hessian::ParetoDist::alpha
prior_hessian::ParetoDist::grad
prior_hessian::ParetoDist::grad2
prior_hessian::ParetoDist::grad_grad2_accumulate
prior_hessian::ParetoDist::sample
prior_hessian::ParetoDist::check_params
prior_hessian::ParetoDist::check_params_iter
prior_hessian::ParetoDist::params
prior_hessian::ParetoDist::set_params
prior_hessian::ParetoDist::set_params_iter
prior_hessian::ParetoDist::set_min
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist::set_alpha

Here is the caller graph for this function:

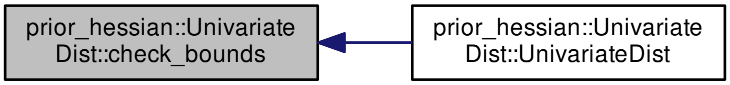

prior_hessian::ParetoDist::mean
prior_hessian::ParetoDist::median
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist::in_bounds
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist::lbound
prior_hessian::ParetoDist::params
prior_hessian::ParetoDist::check_params
prior_hessian::ParetoDist::get_param
prior_hessian::ParetoDist::ParetoDist
prior_hessian::ParetoDist::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist::sample

7.56.4.3 void prior_hessian::UnivariateDist::check_bounds (double *lbound,* double *ubound*) [static], [protected], [inherited]

Definition at line 17 of file UnivariateDist.cpp.

Referenced by prior_hessian::UnivariateDist::UnivariateDist().

Here is the caller graph for this function:

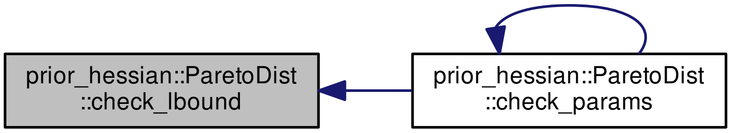


7.56.4.4 bool prior_hessian::ParetoDist::check_lbound (double *min*) [inline], [static]

Definition at line 149 of file ParetoDist.h.

Referenced by check_params().

Here is the caller graph for this function:

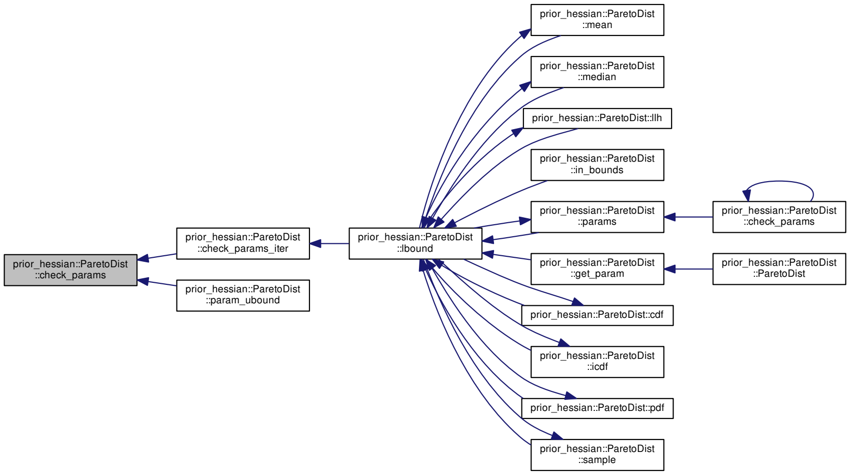


7.56.4.5 bool prior_hessian::ParetoDist::check_params (double *min,* double *alpha*) [inline], [static]

Definition at line 104 of file ParetoDist.h.

Referenced by check_params_iter(), and param_ubound().

Here is the caller graph for this function:


prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::param_ubound
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::ParetoDist

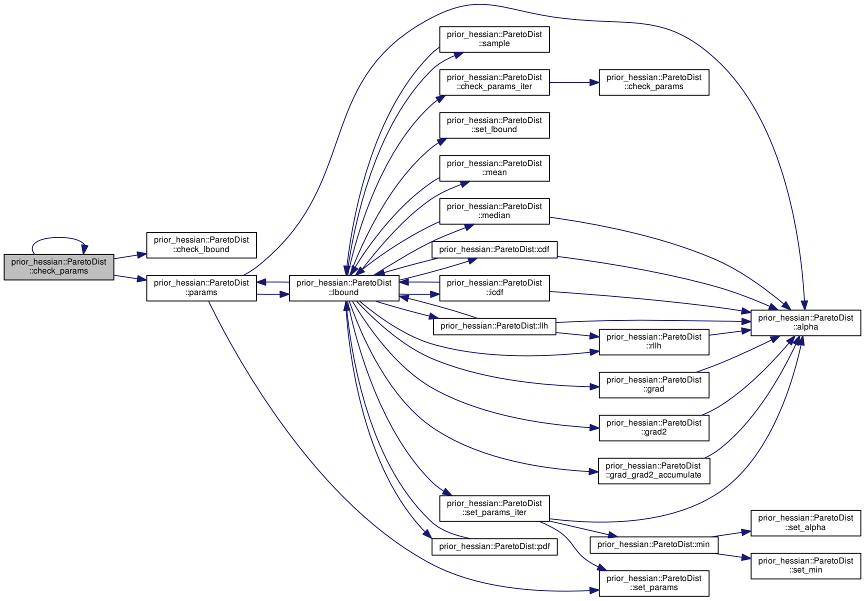
7.56.4.6 template<class Vec > static bool prior_hessian::ParetoDist::check_params (const Vec & *params*) [inline], [static]

Definition at line 38 of file ParetoDist.h.

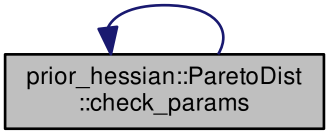
References check_lbound(), check_params(), and params().

Referenced by check_params().

Here is the call graph for this function:


prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::check_lbound
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist ::set_params

Here is the caller graph for this function:



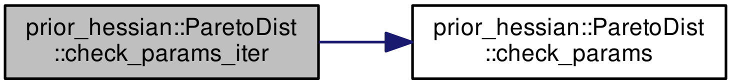
7.56.4.7 template<class IterT > bool prior_hessian::ParetoDist::check_params_iter (IterT & *params*) [static]

Definition at line 111 of file ParetoDist.h.

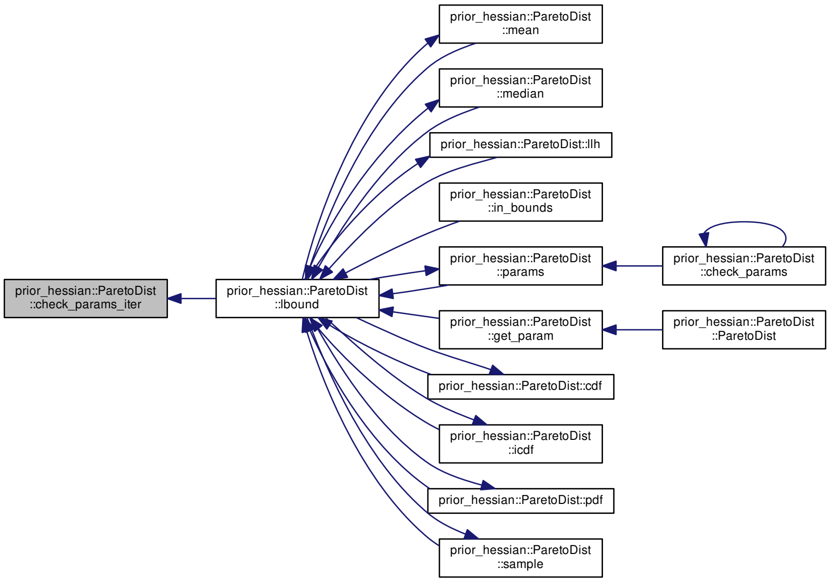
References check_params().

Referenced by lbound().

Here is the call graph for this function:



Here is the caller graph for this function:


prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

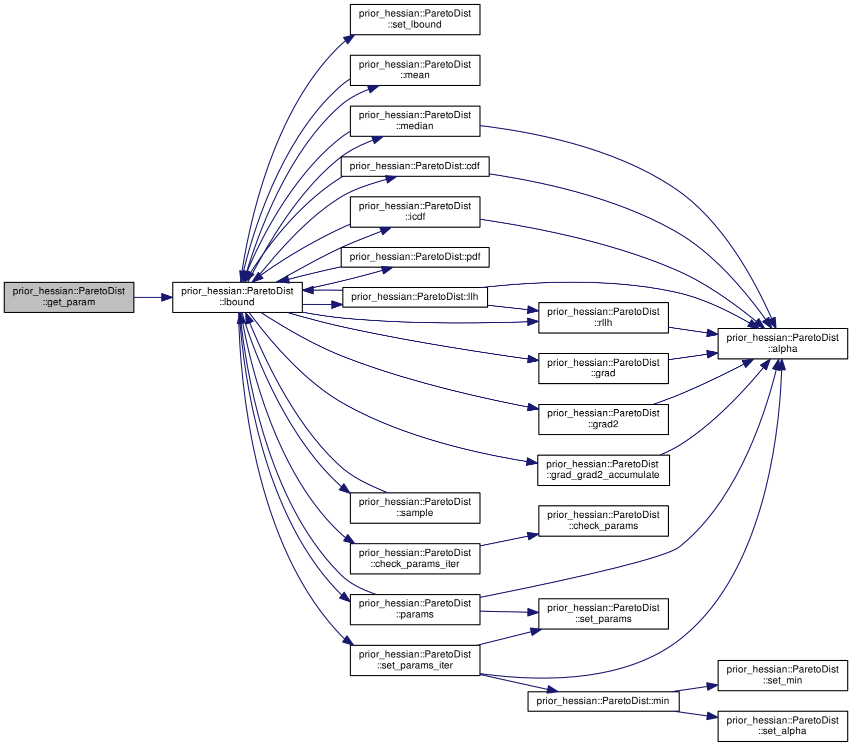
7.56.4.8 double prior_hessian::ParetoDist::get_param (int *idx*) const [inline]

Definition at line 119 of file ParetoDist.h.

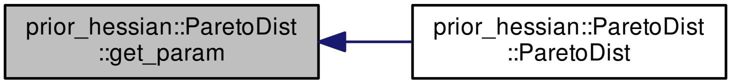
References lbound().

Referenced by ParetoDist().

Here is the call graph for this function:


prior_hessian::ParetoDist
::get_param
prior_hessian::ParetoDist
::lbound
prior_hessian::ParetoDist
::set_lbound
prior_hessian::ParetoDist
::mean
prior_hessian::ParetoDist
::median
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist
::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist
::rllh
prior_hessian::ParetoDist
::alpha
prior_hessian::ParetoDist
::grad
prior_hessian::ParetoDist
::grad2
prior_hessian::ParetoDist
::grad_grad2_accumulate
prior_hessian::ParetoDist
::sample
prior_hessian::ParetoDist
::check_params
prior_hessian::ParetoDist
::check_params_iter
prior_hessian::ParetoDist
::params
prior_hessian::ParetoDist
::set_params
prior_hessian::ParetoDist
::set_params_iter
prior_hessian::ParetoDist
::set_min
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist
::set_alpha

Here is the caller graph for this function:



7.56.4.9 static constexpr double prior_hessian::ParetoDist::global_lbound ( ) [inline], [static]

Definition at line 26 of file ParetoDist.h.

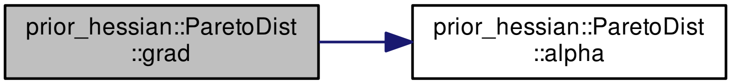
7.56.4.10 double prior_hessian::ParetoDist::grad (double *x*) const [inline]

Definition at line 179 of file ParetoDist.h.

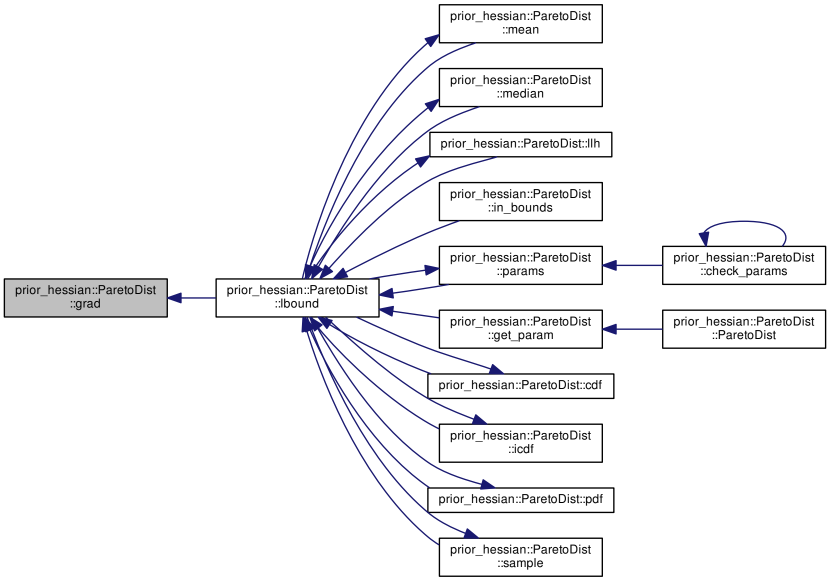
References alpha().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::alpha

Here is the caller graph for this function:


prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::ParetoDist

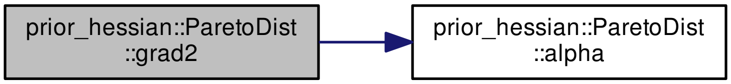
7.56.4.11 double prior_hessian::ParetoDist::grad2 (double *x*) const [inline]

Definition at line 185 of file ParetoDist.h.

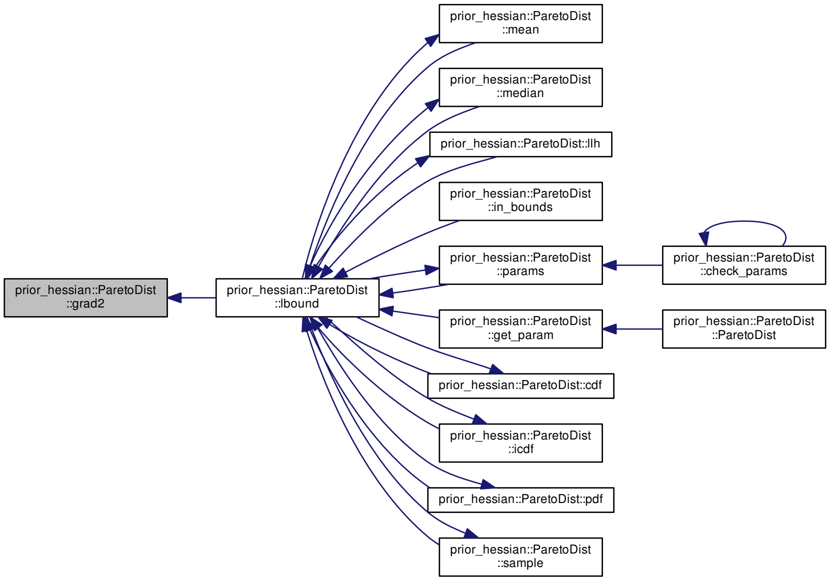
References alpha().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::alpha

Here is the caller graph for this function:


prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

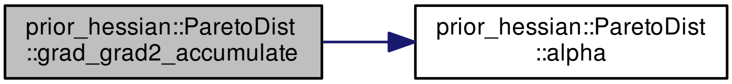
7.56.4.12 void prior_hessian::ParetoDist::grad_grad2_accumulate (double *x*, double & *g*, double & *g2*) const [inline]

Definition at line 191 of file ParetoDist.h.

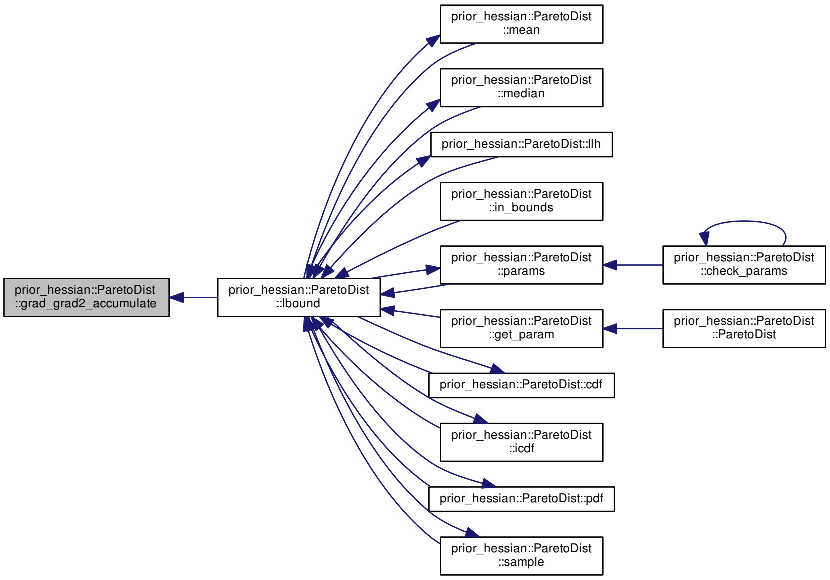
References alpha().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::alpha

Here is the caller graph for this function:


prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

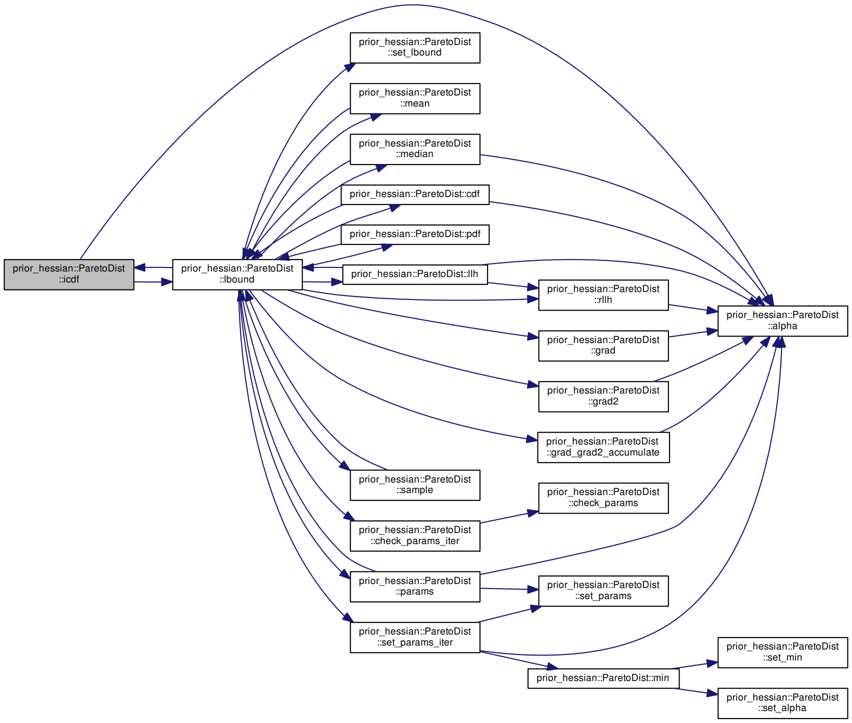
7.56.4.13 double prior_hessian::ParetoDist::icdf (double *u*) const [inline]

Definition at line 161 of file ParetoDist.h.

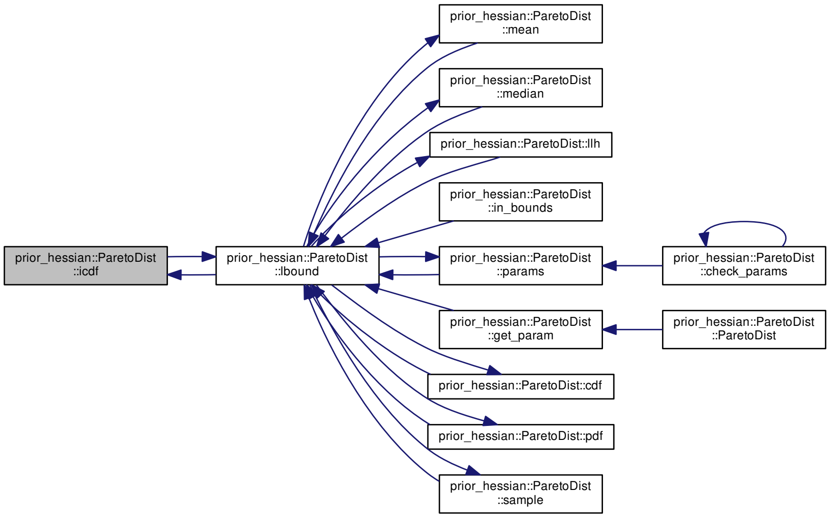
References alpha(), and lbound().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::set_params
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha

Here is the caller graph for this function:

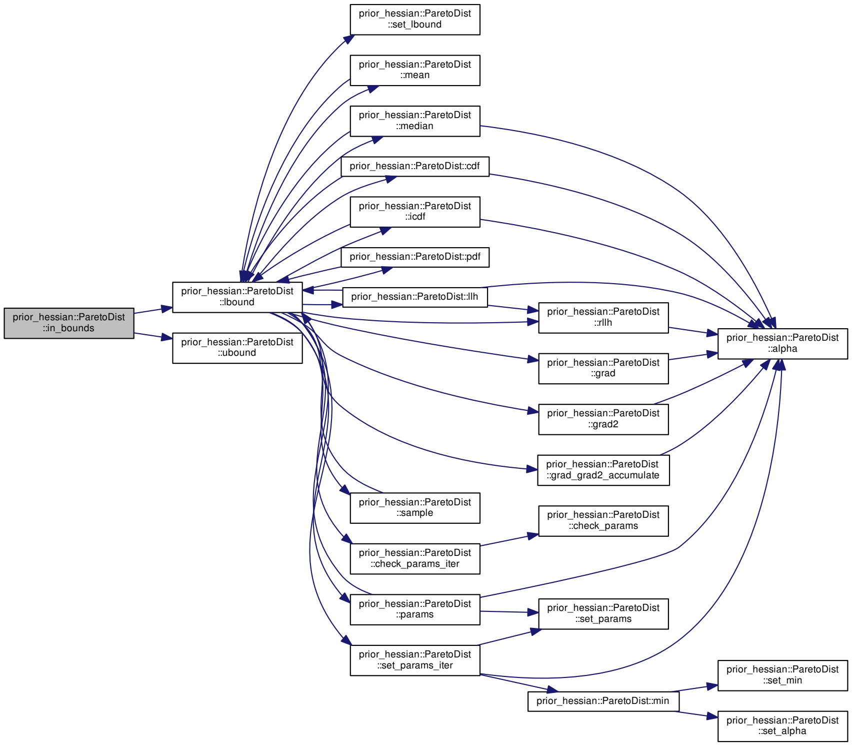

prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

7.56.4.14 bool prior_hessian::ParetoDist::in_bounds (double *u*) const [inline]

Definition at line 28 of file ParetoDist.h.

References lbound(), and ubound().

Here is the call graph for this function:


prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::ubound
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::set_params
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha

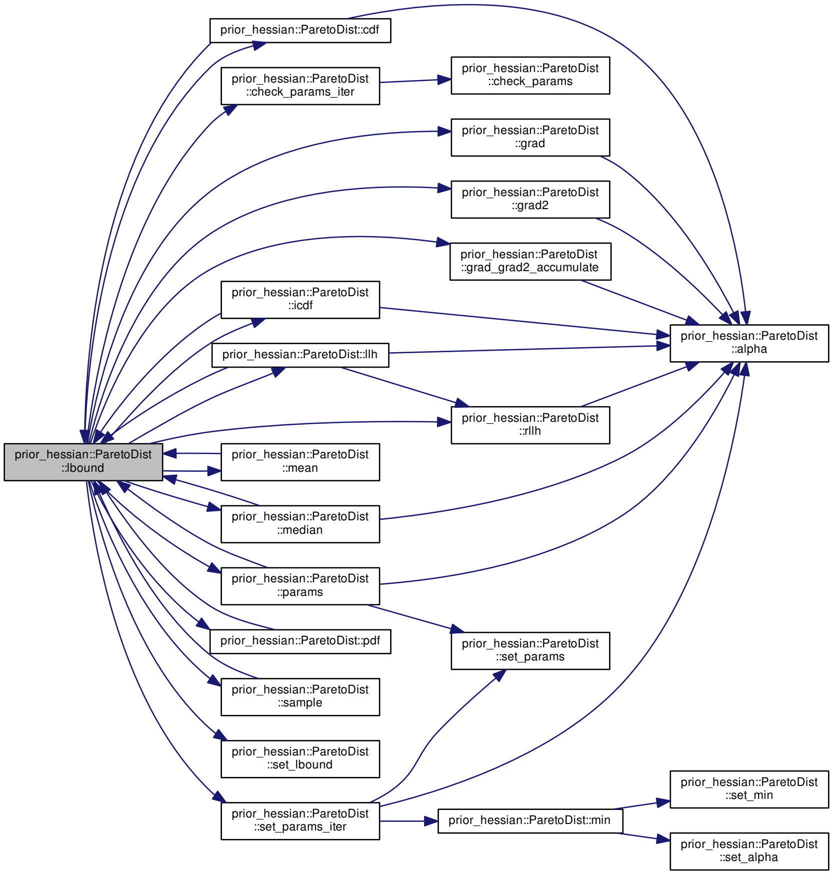
7.56.4.15 double prior_hessian::ParetoDist::lbound ( ) const [inline]

Definition at line 60 of file ParetoDist.h.

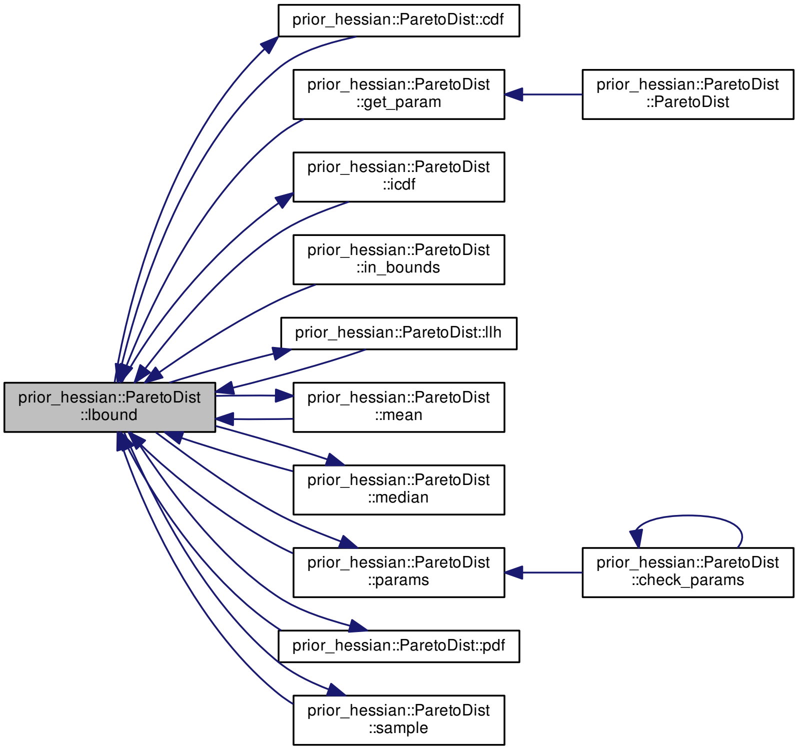
References cdf(), check_params_iter(), grad(), grad2(), grad_grad2_accumulate(), icdf(), llh(), mean(), median(), params(), pdf(), rllh(), sample(), set_lbound(), and set_params_iter().

Referenced by cdf(), get_param(), icdf(), in_bounds(), llh(), mean(), median(), params(), pdf(), and sample().

Here is the call graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::set_params
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha

Here is the caller graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

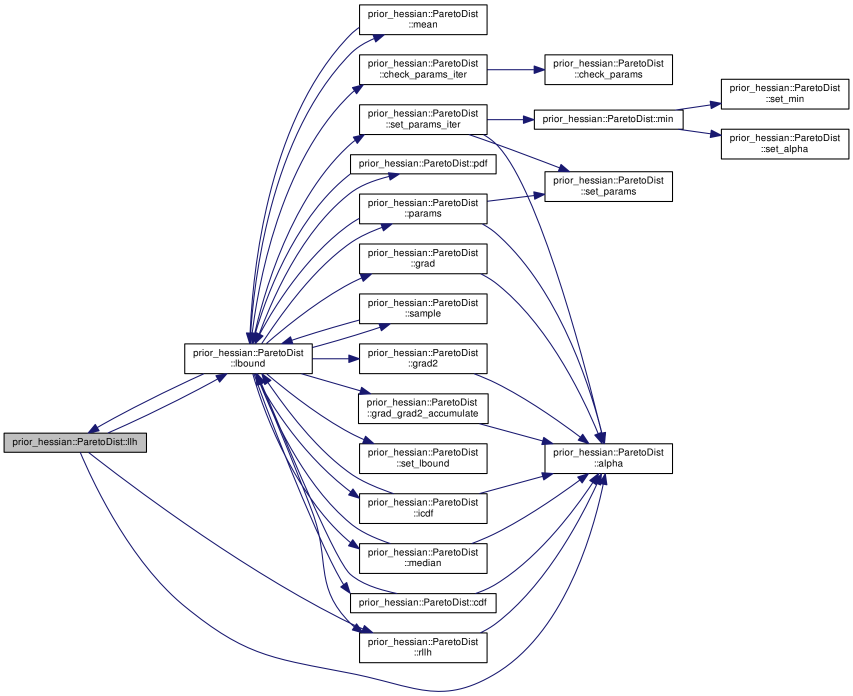
7.56.4.16 double prior_hessian::ParetoDist::llh (double *x*) const

Definition at line 64 of file ParetoDist.cpp.

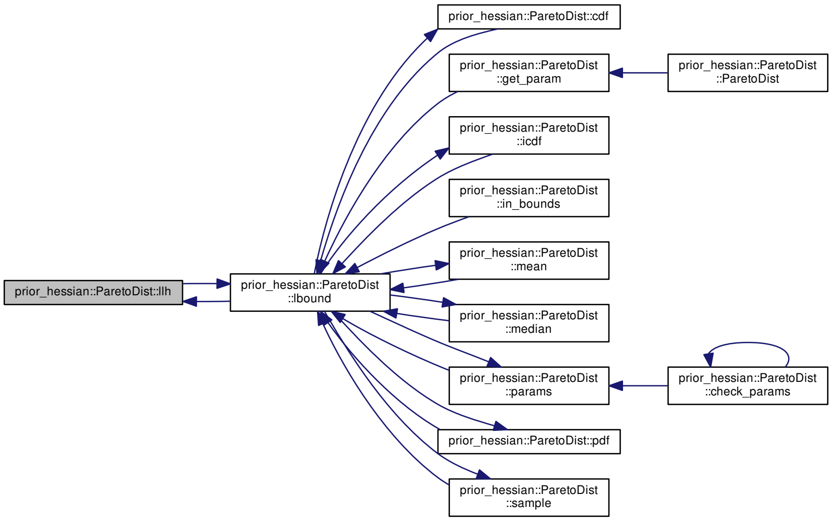
References alpha(), lbound(), and rllh().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist::mean
prior_hessian::ParetoDist::check_params_iter
prior_hessian::ParetoDist::check_params
prior_hessian::ParetoDist::set_params_iter
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist::set_min
prior_hessian::ParetoDist::set_alpha
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist::set_params
prior_hessian::ParetoDist::params
prior_hessian::ParetoDist::grad
prior_hessian::ParetoDist::sample
prior_hessian::ParetoDist::lbound
prior_hessian::ParetoDist::grad2
prior_hessian::ParetoDist::grad_grad2_accumulate
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist::set_lbound
prior_hessian::ParetoDist::alpha
prior_hessian::ParetoDist::icdf
prior_hessian::ParetoDist::median
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist::rllh

Here is the caller graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist::get_param
prior_hessian::ParetoDist::ParetoDist
prior_hessian::ParetoDist::icdf
prior_hessian::ParetoDist::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist::lbound
prior_hessian::ParetoDist::mean
prior_hessian::ParetoDist::median
prior_hessian::ParetoDist::params
prior_hessian::ParetoDist::check_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist::sample

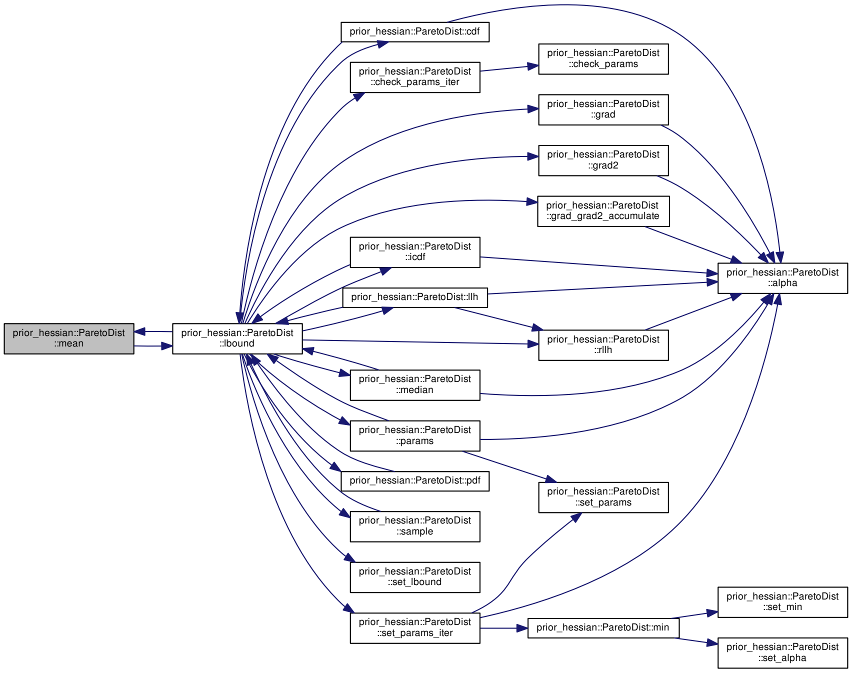
7.56.4.17 double prior_hessian::ParetoDist::mean ( ) const

Definition at line 54 of file ParetoDist.cpp.

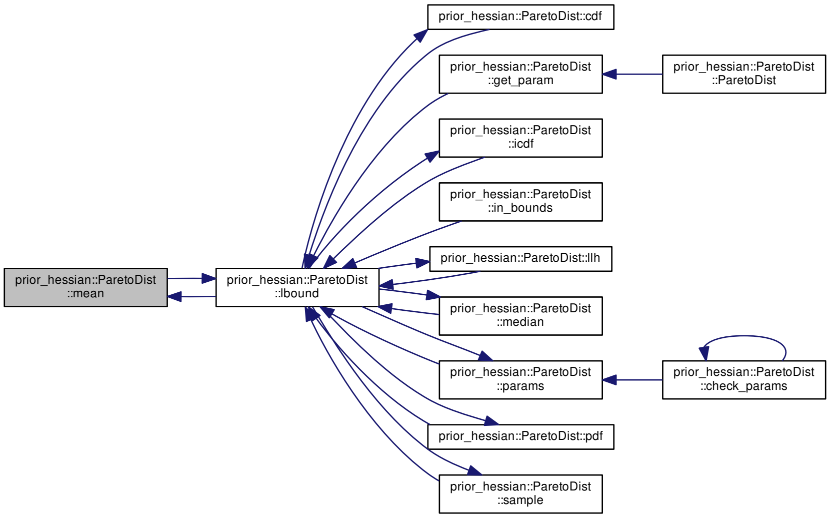
References lbound().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::set_params
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist ::set_alpha

Here is the caller graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

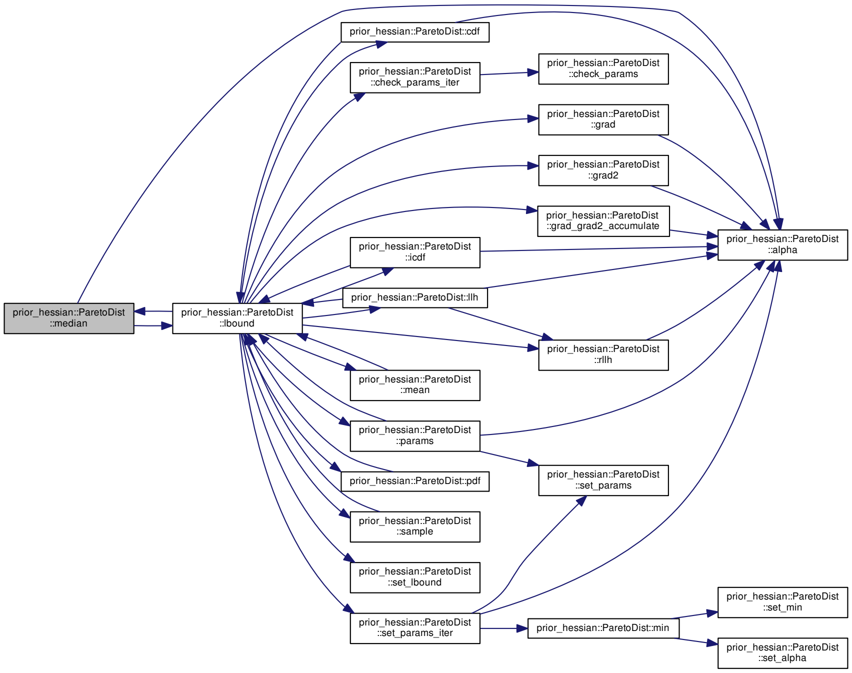
7.56.4.18 double prior_hessian::ParetoDist::median ( ) const

Definition at line 59 of file ParetoDist.cpp.

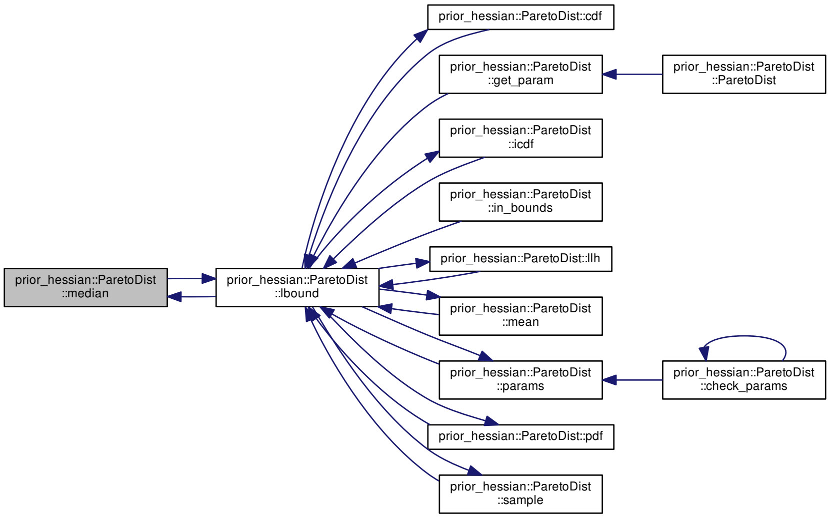
References alpha(), and lbound().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::set_params
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha

Here is the caller graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

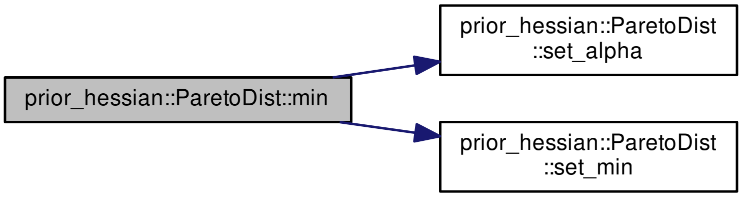
7.56.4.19 double prior_hessian::ParetoDist::min ( ) const [inline]

Definition at line 56 of file ParetoDist.h.

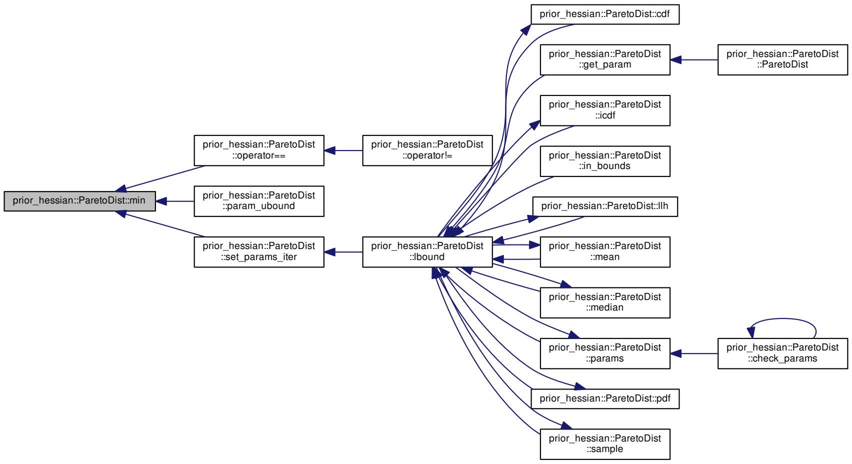
References set_alpha(), and set_min().

Referenced by operator==(), param_ubound(), and set_params_iter().

Here is the call graph for this function:


prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_min

Here is the caller graph for this function:


prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::operator==
prior_hessian::ParetoDist ::param_ubound
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist ::operator!=
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

7.56.4.20 static constexpr IdxT prior_hessian::UnivariateDist::num_dim ( ) [inline], [static], [inherited]

Definition at line 17 of file UnivariateDist.h.

7.56.4.21 static constexpr IdxT prior_hessian::ParetoDist::num_params ( ) [inline], [static]

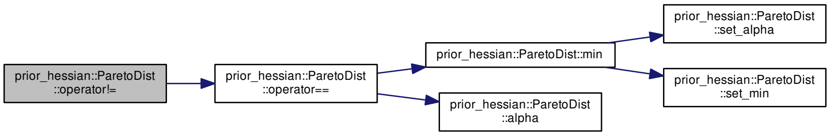
Definition at line 25 of file ParetoDist.h.

7.56.4.22 bool prior_hessian::ParetoDist::operator!= (const ParetoDist & *o*) const [inline]

Definition at line 53 of file ParetoDist.h.

References operator==().

Here is the call graph for this function:


prior_hessian::ParetoDist ::operator!=
prior_hessian::ParetoDist ::operator==
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_min

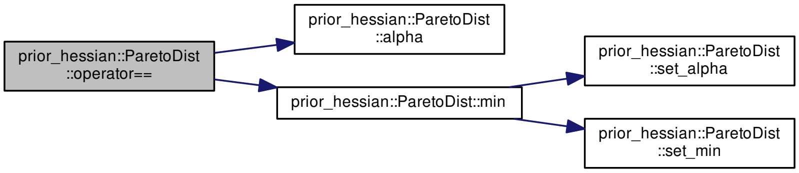
7.56.4.23 bool prior_hessian::ParetoDist::operator== (const ParetoDist & *o*) const [inline]

Definition at line 52 of file ParetoDist.h.

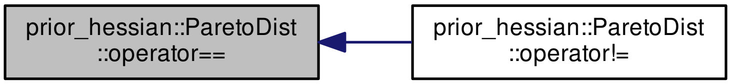
References alpha(), and min().

Referenced by operator!=().

Here is the call graph for this function:


prior_hessian::ParetoDist ::operator==
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_min

Here is the caller graph for this function:


prior_hessian::ParetoDist ::operator==
prior_hessian::ParetoDist ::operator!=

7.56.4.24 static const NparamsVecT& prior_hessian::ParetoDist::param_lbound ( ) [inline], [static]

Definition at line 32 of file ParetoDist.h.

7.56.4.25 static const StringVecT& prior_hessian::ParetoDist::param_names ( ) [inline], [static]

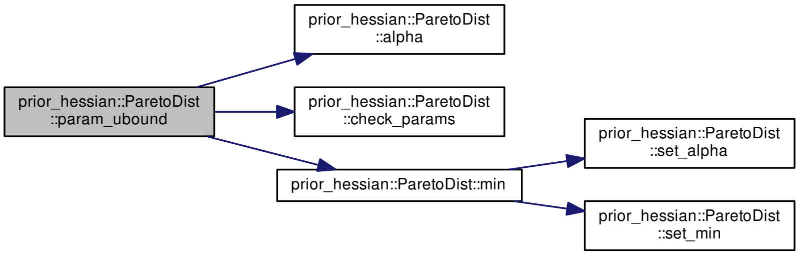
Definition at line 31 of file ParetoDist.h.

7.56.4.26 static const NparamsVecT& prior_hessian::ParetoDist::param_ubound ( ) [inline], [static]

Definition at line 33 of file ParetoDist.h.

References alpha(), check_params(), and min().

Here is the call graph for this function:


prior_hessian::ParetoDist ::param_ubound
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_min

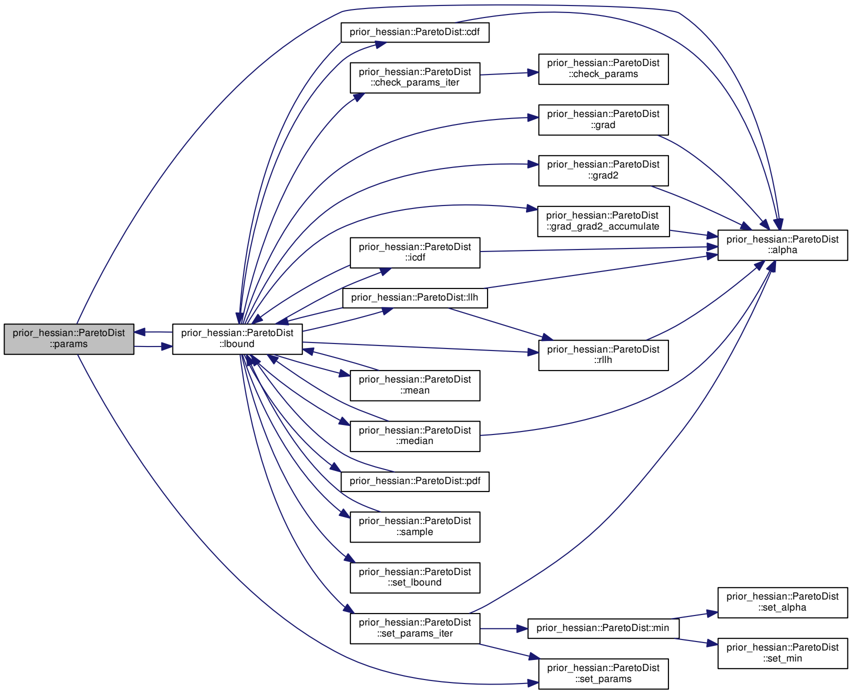
7.56.4.27 NparamsVecT prior_hessian::ParetoDist::params ( ) const [inline]

Definition at line 48 of file ParetoDist.h.

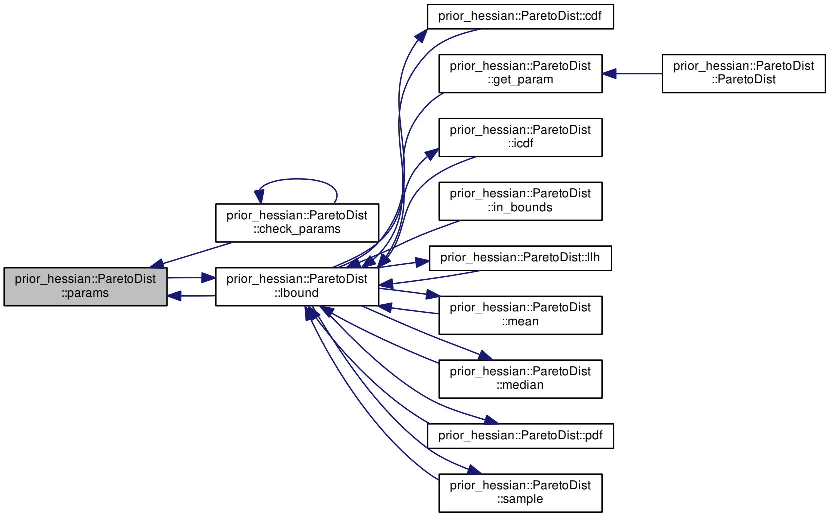
References alpha(), lbound(), and set_params().

Referenced by check_params(), and lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist ::set_params

Here is the caller graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

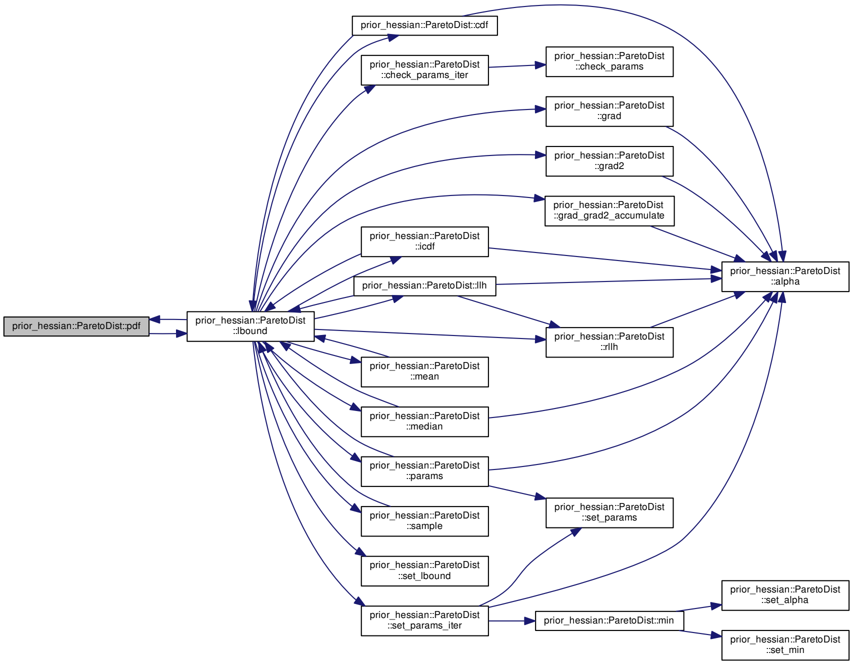
7.56.4.28 double prior_hessian::ParetoDist::pdf (double *x*) const [inline]

Definition at line 167 of file ParetoDist.h.

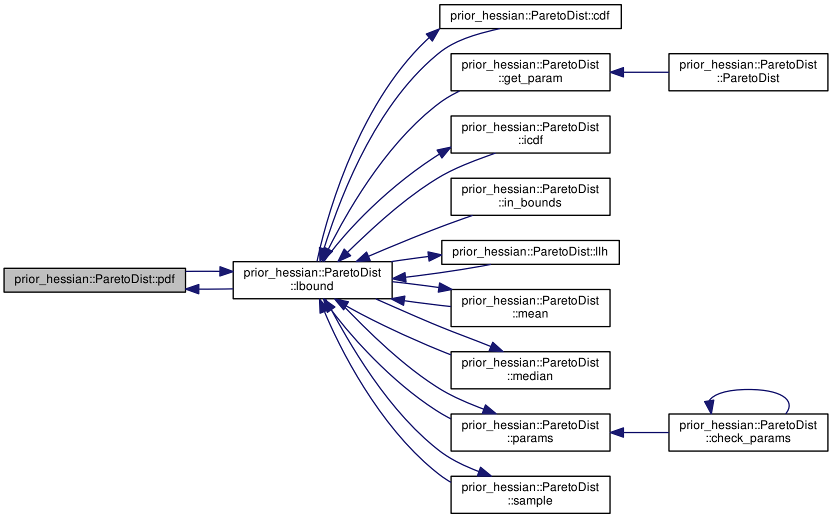
References lbound().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::set_params
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_min

Here is the caller graph for this function:


prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::sample

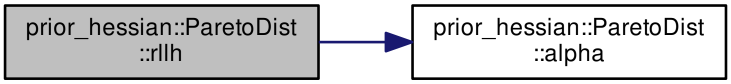
7.56.4.29 double prior_hessian::ParetoDist::rllh (double *x*) const [inline]

Definition at line 173 of file ParetoDist.h.

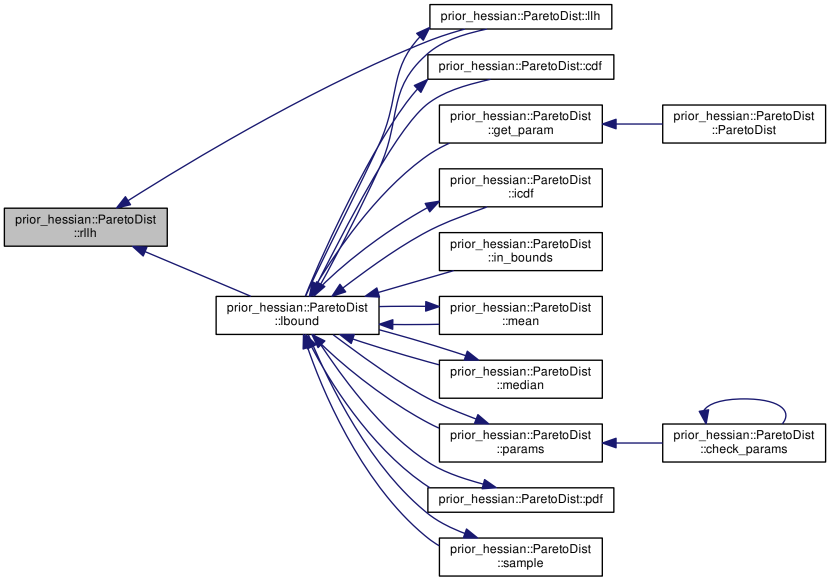
References alpha().

Referenced by lbound(), and llh().

Here is the call graph for this function:


prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::alpha

Here is the caller graph for this function:


prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

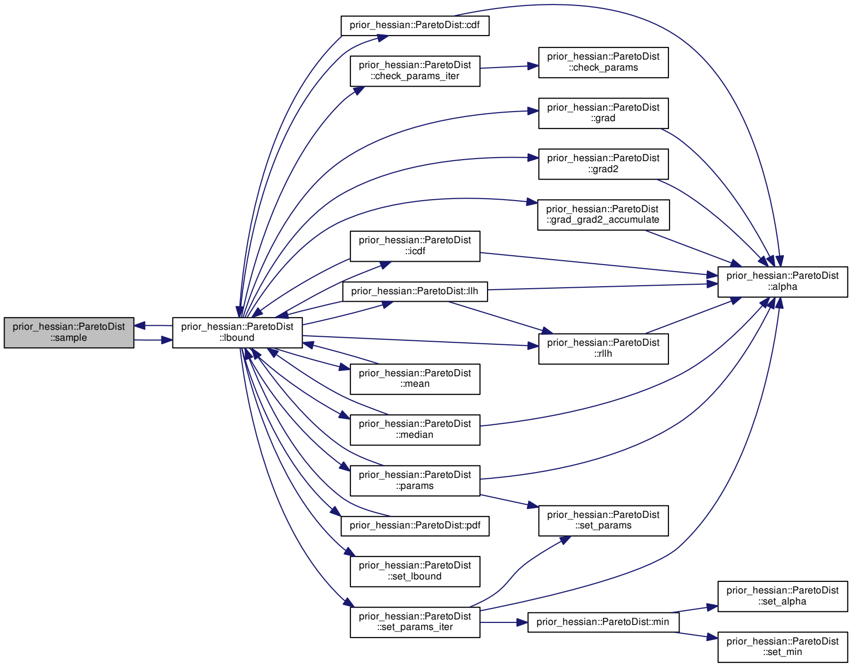
7.56.4.30 template< class RngT > double prior_hessian::ParetoDist::sample (RngT & *rng*) const

Definition at line 200 of file ParetoDist.h.

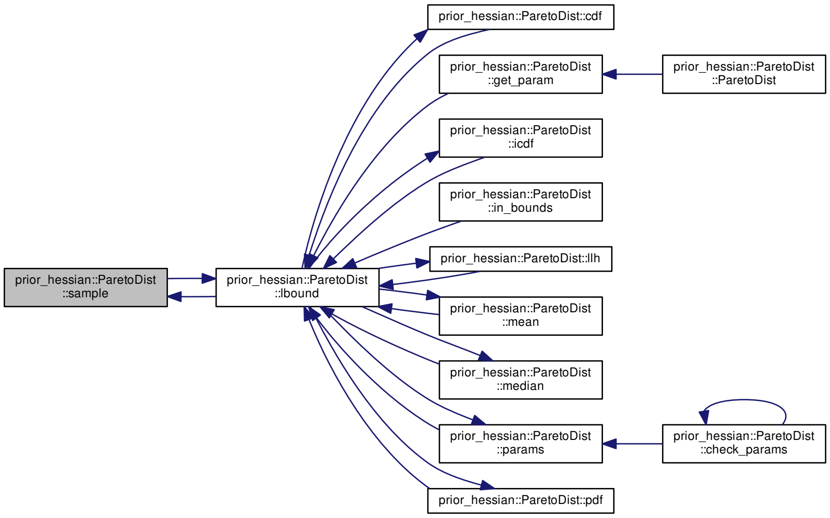
References lbound().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::check_params_iter
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist ::grad
prior_hessian::ParetoDist ::grad2
prior_hessian::ParetoDist ::grad_grad2_accumulate
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::alpha
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::rllh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::set_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_min

Here is the caller graph for this function:

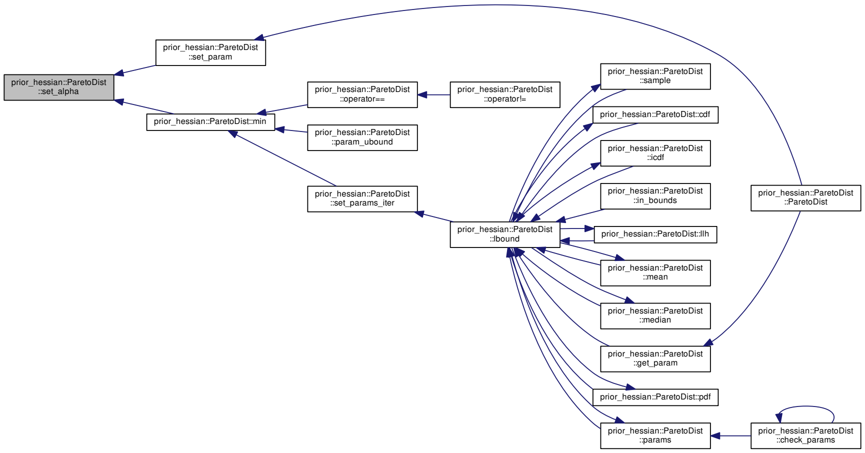

prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::pdf

7.56.4.31 void prior_hessian::ParetoDist::set_alpha (double *val*)

Definition at line 35 of file ParetoDist.cpp.

Referenced by min(), and set_param().

Here is the caller graph for this function:

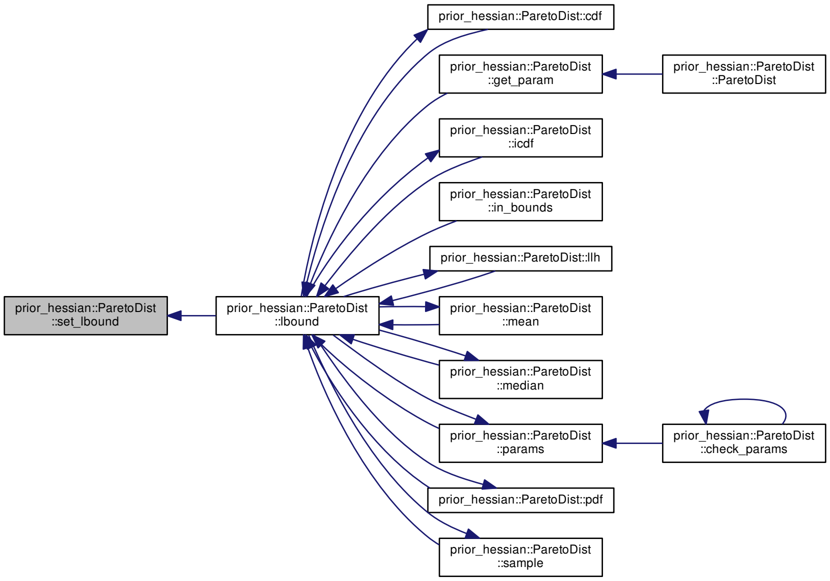

prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_param
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::operator==
prior_hessian::ParetoDist ::operator!=
prior_hessian::ParetoDist ::param_ubound
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::check_params

7.56.4.32 void prior_hessian::ParetoDist::set_lbound (double *lbound*)

Definition at line 48 of file ParetoDist.cpp.

Referenced by lbound().

Here is the caller graph for this function:

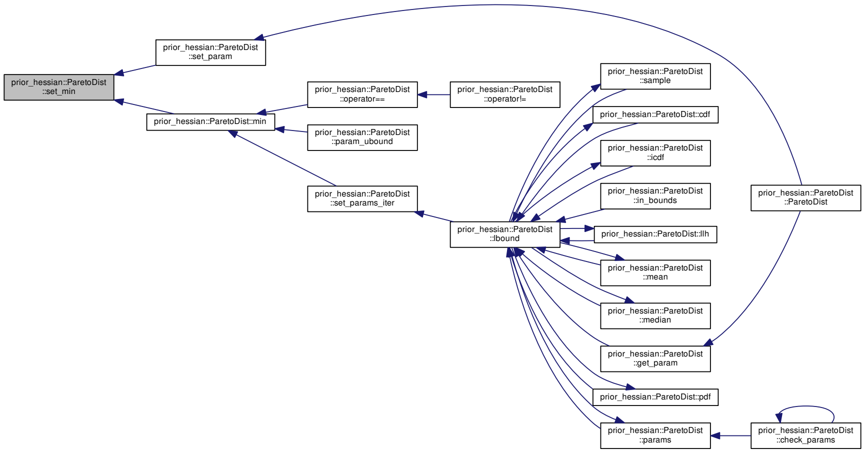

prior_hessian::ParetoDist ::set_lbound
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

7.56.4.33 void prior_hessian::ParetoDist::set_min (double *val*)

Definition at line 29 of file ParetoDist.cpp.

Referenced by min(), and set_param().

Here is the caller graph for this function:


prior_hessian::ParetoDist ::set_min
prior_hessian::ParetoDist ::set_param
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist ::operator==
prior_hessian::ParetoDist ::operator!=
prior_hessian::ParetoDist ::param_ubound
prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist ::sample
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::check_params

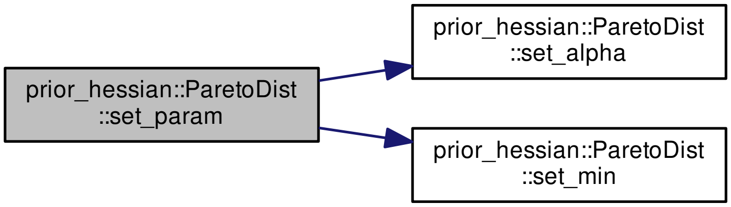
7.56.4.34 void prior_hessian::ParetoDist::set_param (int *idx,* double *val*) [inline]

Definition at line 133 of file ParetoDist.h.

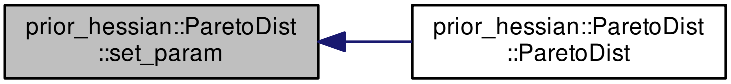
References set_alpha(), and set_min().

Referenced by ParetoDist().

Here is the call graph for this function:


prior_hessian::ParetoDist ::set_param
prior_hessian::ParetoDist ::set_alpha
prior_hessian::ParetoDist ::set_min

Here is the caller graph for this function:

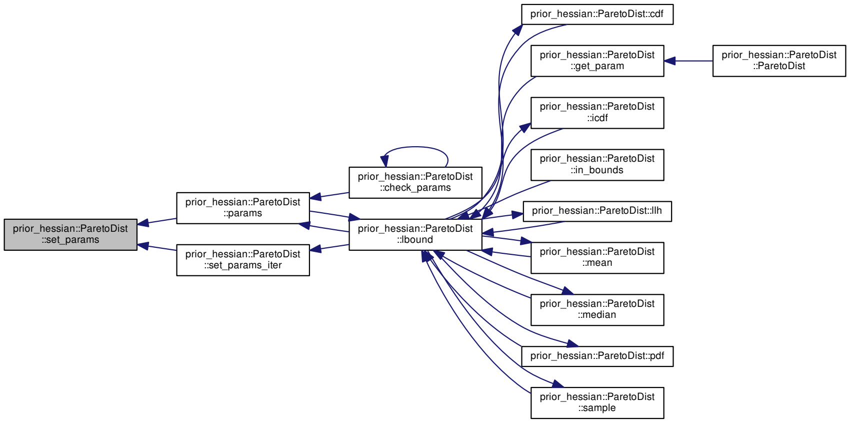


7.56.4.35 void prior_hessian::ParetoDist::set_params (double *min*, double *alpha*)

Definition at line 41 of file ParetoDist.cpp.

Referenced by params(), and set_params_iter().

Here is the caller graph for this function:


prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist
::get_param
prior_hessian::ParetoDist
::ParetoDist
prior_hessian::ParetoDist
::icdf
prior_hessian::ParetoDist
::in_bounds
prior_hessian::ParetoDist
::check_params
prior_hessian::ParetoDist
::params
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist
::set_params
prior_hessian::ParetoDist
::lbound
prior_hessian::ParetoDist
::set_params_iter
prior_hessian::ParetoDist
::mean
prior_hessian::ParetoDist
::median
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist
::sample

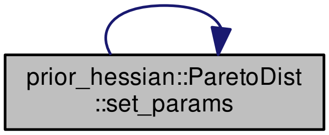
7.56.4.36 template<class Vec > void prior_hessian::ParetoDist::set_params (const Vec & *p*) [inline]

Definition at line 51 of file ParetoDist.h.

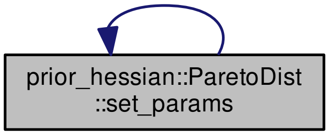
References set_params().

Referenced by set_params().

Here is the call graph for this function:



Here is the caller graph for this function:



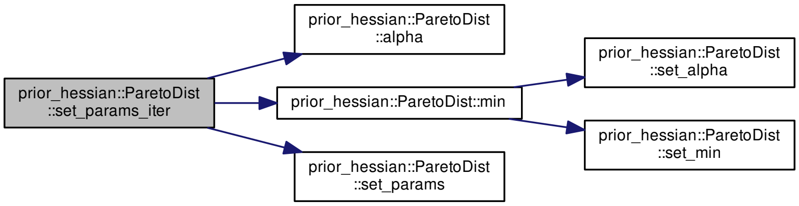
7.56.4.37 template< class IterT > void prior_hessian::ParetoDist::set_params_iter (IterT & *params*)

Definition at line 208 of file ParetoDist.h.

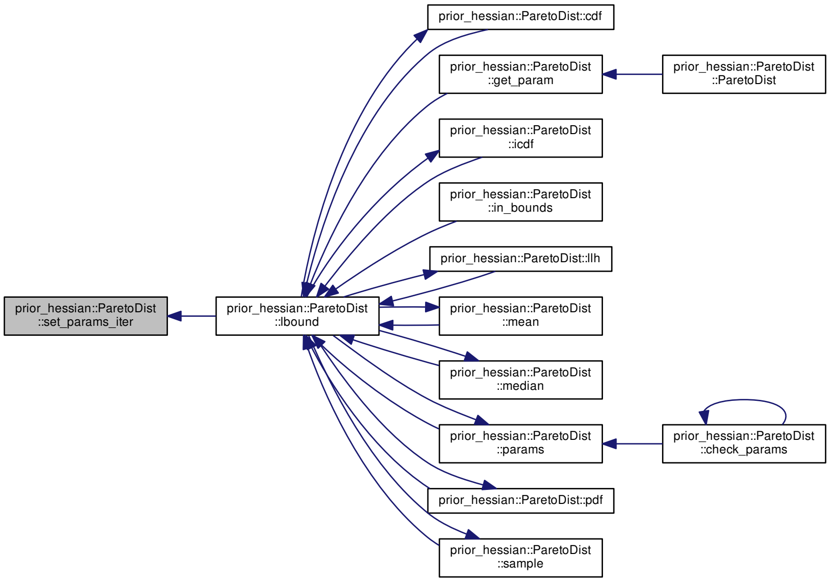
References alpha(), min(), and set_params().

Referenced by lbound().

Here is the call graph for this function:


prior_hessian::ParetoDist
::set_params_iter
prior_hessian::ParetoDist
::alpha
prior_hessian::ParetoDist::min
prior_hessian::ParetoDist
::set_params
prior_hessian::ParetoDist
::set_alpha
prior_hessian::ParetoDist
::set_min

Here is the caller graph for this function:

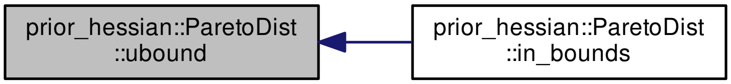

prior_hessian::ParetoDist ::set_params_iter
prior_hessian::ParetoDist ::lbound
prior_hessian::ParetoDist::cdf
prior_hessian::ParetoDist ::get_param
prior_hessian::ParetoDist ::ParetoDist
prior_hessian::ParetoDist ::icdf
prior_hessian::ParetoDist ::in_bounds
prior_hessian::ParetoDist::llh
prior_hessian::ParetoDist ::mean
prior_hessian::ParetoDist ::median
prior_hessian::ParetoDist ::params
prior_hessian::ParetoDist ::check_params
prior_hessian::ParetoDist::pdf
prior_hessian::ParetoDist ::sample

7.56.4.38 static constexpr double prior_hessian::ParetoDist::ubound ( ) [inline], [static]

Definition at line 27 of file ParetoDist.h.

Referenced by in_bounds().

Here is the caller graph for this function:


prior_hessian::ParetoDist ::ubound
prior_hessian::ParetoDist ::in_bounds

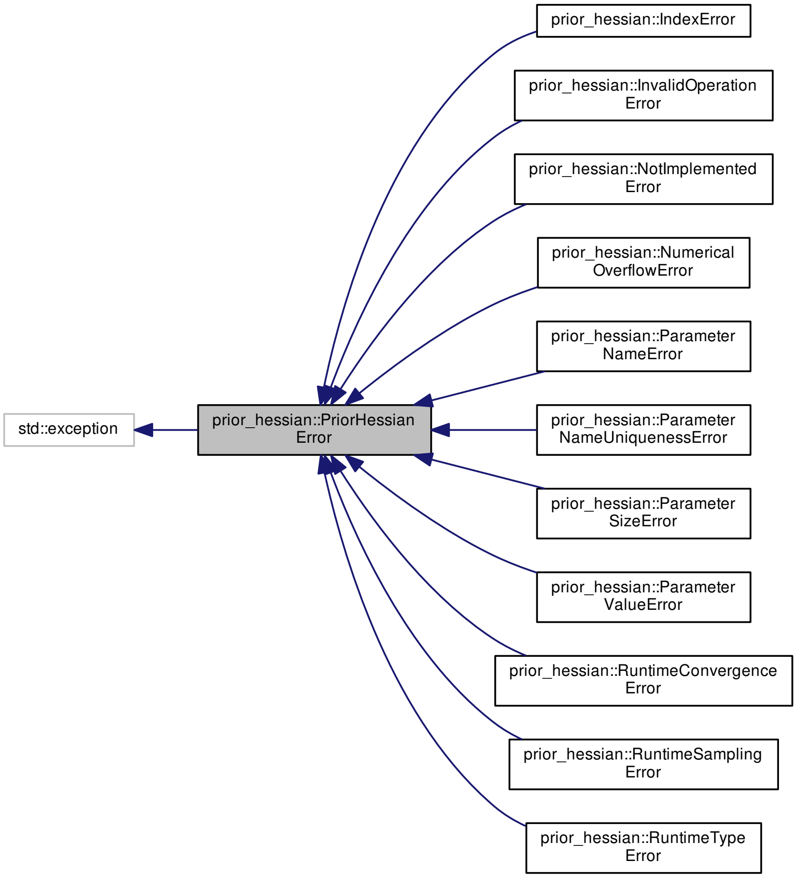
The documentation for this class was generated from the following files:

- ParetoDist.h
- ParetoDist.cpp

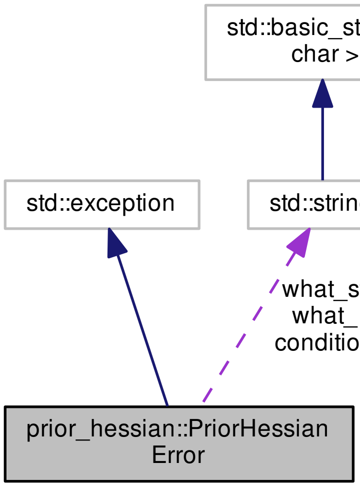
7.57 prior_hessian::PriorHessianError Class Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::PriorHessianError:


prior_hessian::IndexError
prior_hessian::InvalidOperation Error
prior_hessian::NotImplemented Error
prior_hessian::Numerical OverflowError
prior_hessian::Parameter NameError
std::exception
prior_hessian::PriorHessian Error
prior_hessian::Parameter NameUniquenessError
prior_hessian::Parameter SizeError
prior_hessian::Parameter ValueError
prior_hessian::RuntimeConvergence Error
prior_hessian::RuntimeSampling Error
prior_hessian::RuntimeType Error

Collaboration diagram for prior_hessian::PriorHessianError:



Public Member Functions

- PriorHessianError (std::string condition, std::string what)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.57.1 Detailed Description

Definition at line 43 of file PriorHessianError.h.

7.57.2 Constructor & Destructor Documentation

7.57.2.1 prior_hessian::PriorHessianError::PriorHessianError (std::string *condition,* std::string *what*) [inline]

Definition at line 50 of file PriorHessianError.h.

7.57.3 Member Function Documentation

7.57.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept]

Definition at line 56 of file PriorHessianError.h.

7.57.4 Member Data Documentation

7.57.4.1 std::string prior_hessian::PriorHessianError::condition [protected]

Definition at line 46 of file PriorHessianError.h.

7.57.4.2 std::string prior_hessian::PriorHessianError::what_ [protected]

Definition at line 48 of file PriorHessianError.h.

7.57.4.3 std::string prior_hessian::PriorHessianError::what_str [protected]

Definition at line 47 of file PriorHessianError.h.

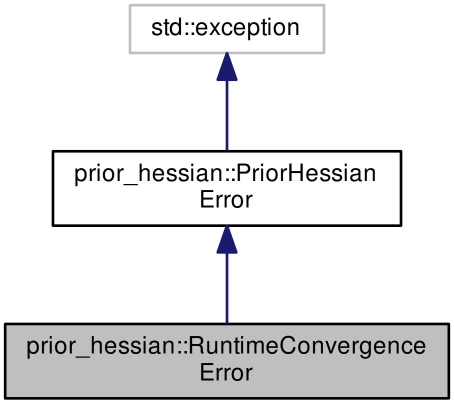
The documentation for this class was generated from the following file:

- PriorHessianError.h

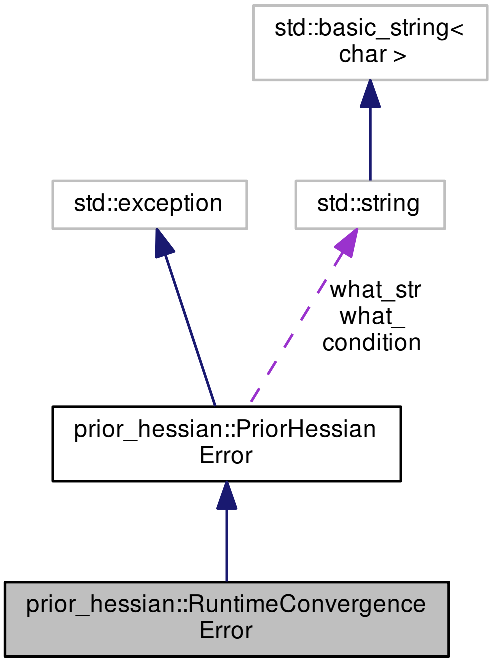
7.58 prior_hessian::RuntimeConvergenceError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::RuntimeConvergenceError:


std::exception
prior_hessian::PriorHessian Error
prior_hessian::RuntimeConvergence Error

Collaboration diagram for prior_hessian::RuntimeConvergenceError:


std::basic_string< char >

prior_hessian::PriorHessian Error
prior_hessian::RuntimeConvergence Error

Public Member Functions

- RuntimeConvergenceError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.58.1 Detailed Description

Definition at line 94 of file PriorHessianError.h.

7.58.2 Constructor & Destructor Documentation

7.58.2.1 prior_hessian::RuntimeConvergenceError::RuntimeConvergenceError (std::string *message*) [inline]

Definition at line 96 of file PriorHessianError.h.

7.58.3 Member Function Documentation

7.58.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.58.4 Member Data Documentation

7.58.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.58.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.58.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

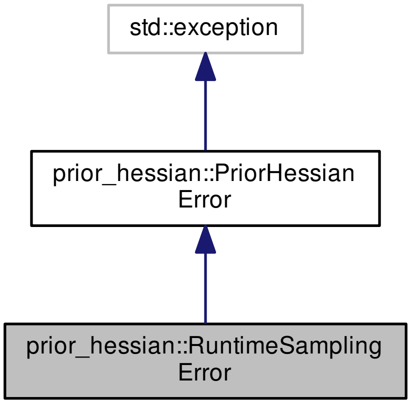
The documentation for this struct was generated from the following file:

- PriorHessianError.h

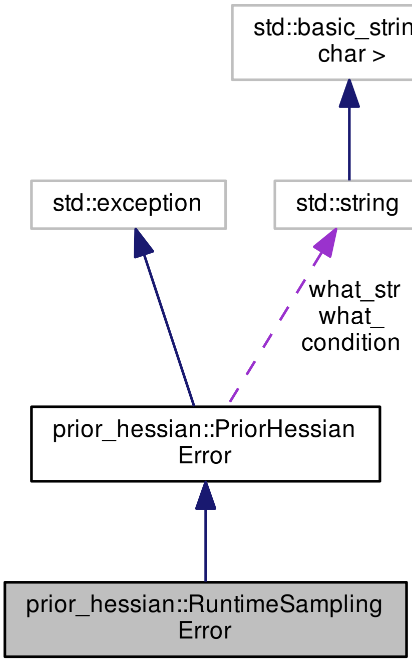
7.59 prior_hessian::RuntimeSamplingError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↵
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::RuntimeSamplingError:


std::exception
prior_hessian::PriorHessian Error
prior_hessian::RuntimeSampling Error

Collaboration diagram for prior_hessian::RuntimeSamplingError:



Public Member Functions

- RuntimeSamplingError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.59.1 Detailed Description

Definition at line 99 of file PriorHessianError.h.

7.59.2 Constructor & Destructor Documentation

7.59.2.1 prior_hessian::RuntimeSamplingError::RuntimeSamplingError (std::string *message*) [inline]

Definition at line 101 of file PriorHessianError.h.

7.59.3 Member Function Documentation

7.59.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.59.4 Member Data Documentation

7.59.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.59.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.59.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

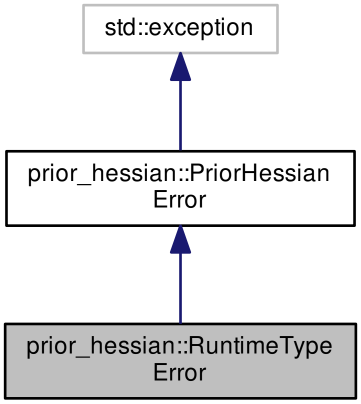
The documentation for this struct was generated from the following file:

- PriorHessianError.h

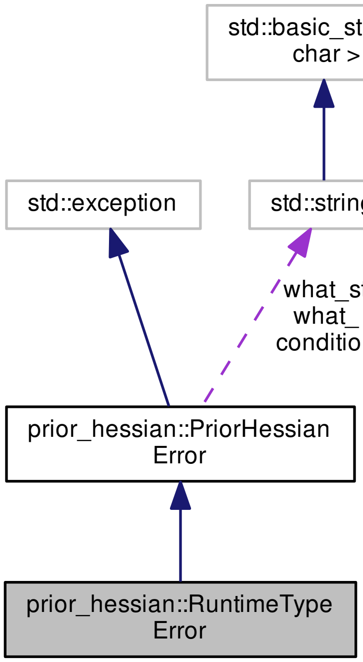
7.60 prior_hessian::RuntimeTypeError Struct Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
PriorHessianError.h>
```

Inheritance diagram for prior_hessian::RuntimeTypeError:


std::exception
prior_hessian::PriorHessian Error
prior_hessian::RuntimeType Error

Collaboration diagram for prior_hessian::RuntimeTypeError:


std::basic_string< char >
std::exception
std::string
what_str
what_
condition
prior_hessian::PriorHessian Error
prior_hessian::RuntimeType Error

Public Member Functions

- RuntimeTypeError (std::string message)
- const char ∗ what () const noexceptoverride

Protected Attributes

- std::string condition
- std::string what_str
- std::string what_

7.60.1 Detailed Description

Definition at line 104 of file PriorHessianError.h.

7.60.2 Constructor & Destructor Documentation

7.60.2.1 prior_hessian::RuntimeTypeError::RuntimeTypeError (std::string *message*) [inline]

Definition at line 106 of file PriorHessianError.h.

7.60.3 Member Function Documentation

7.60.3.1 const char∗ prior_hessian::PriorHessianError::what ( ) const [inline], [override], [noexcept], [inherited]

Definition at line 56 of file PriorHessianError.h.

7.60.4 Member Data Documentation

7.60.4.1 std::string prior_hessian::PriorHessianError::condition [protected], [inherited]

Definition at line 46 of file PriorHessianError.h.

7.60.4.2 std::string prior_hessian::PriorHessianError::what_ [protected], [inherited]

Definition at line 48 of file PriorHessianError.h.

7.60.4.3 std::string prior_hessian::PriorHessianError::what_str [protected], [inherited]

Definition at line 47 of file PriorHessianError.h.

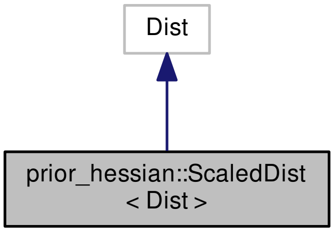
The documentation for this struct was generated from the following file:

- PriorHessianError.h

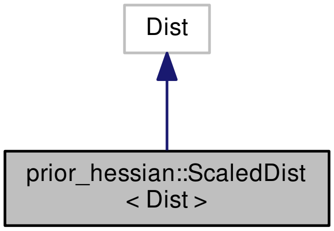
7.61 prior_hessian::ScaledDist< Dist > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
ScaledDist.h>
```

Inheritance diagram for prior_hessian::ScaledDist< Dist >:



Collaboration diagram for prior_hessian::ScaledDist< Dist >:



Public Member Functions

- ScaledDist ()
- ScaledDist (double lbound, double ubound)
- template<typename = meta::EnableIfNotIsSelfT<Dist,ScaledDist>>
  ScaledDist (const Dist &dist)
- template<typename = meta::EnableIfNotIsSelfT<Dist,ScaledDist>>
  ScaledDist (Dist &&dist)
- ScaledDist (const Dist &dist, double lbound, double ubound)
- ScaledDist (Dist &&dist, double lbound, double ubound)
- double lbound () const
- double ubound () const
- bool operator== (const ScaledDist< Dist > &o) const
- bool operator!= (const ScaledDist< Dist > &o) const
- void set_lbound (double lbound)
- void set_ubound (double ubound)
- void set_bounds (double lbound, double ubound)
- double mean () const
- double median () const
- double cdf (double x) const
- double pdf (double x) const
- double icdf (double u) const
- double llh (double x) const
- template<class RngT >
  double sample (RngT &rng) const

Static Public Member Functions

- static double unscaled_lbound ()
- static double unscaled_ubound ()
- static double global_lbound ()
- static double global_ubound ()

Protected Member Functions

- double convert_to_unitary_coords (double x) const
- double convert_from_unitary_coords (double u) const

Protected Attributes

- double _scaled_lbound
- double _scaled_ubound
- double scaling_ratio
- double llh_scaling_const

7.61.1 Detailed Description

template<class Dist>
class prior_hessian::ScaledDist< Dist >

Definition at line 19 of file ScaledDist.h.

7.61.2 Constructor & Destructor Documentation

7.61.2.1 template<class Dist> prior_hessian::ScaledDist< Dist >::ScaledDist ( ) [inline]

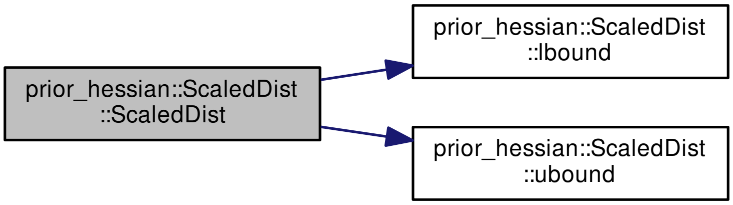
Definition at line 22 of file ScaledDist.h.

7.61.2.2 template<class Dist> prior_hessian::ScaledDist< Dist >::ScaledDist (double *lbound,* double *ubound*) [inline]

Definition at line 23 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::lbound(), and prior_hessian::ScaledDist< Dist >::ubound().

Here is the call graph for this function:


prior_hessian::ScaledDist
::ScaledDist
prior_hessian::ScaledDist
::lbound
prior_hessian::ScaledDist
::ubound

7.61.2.3 template< class Dist > template< typename = meta::EnableIfNotIsSelfT< Dist,ScaledDist > > prior_hessian::ScaledDist< Dist >::ScaledDist (const Dist & *dist*) [inline]

Definition at line 26 of file ScaledDist.h.

7.61.2.4 template< class Dist > template< typename = meta::EnableIfNotIsSelfT< Dist,ScaledDist > > prior_hessian::ScaledDist< Dist >::ScaledDist (Dist && *dist*) [inline]

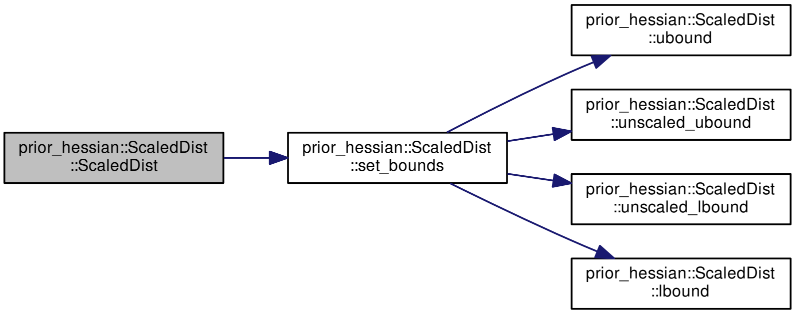
Definition at line 29 of file ScaledDist.h.

7.61.2.5 template< class Dist > prior_hessian::ScaledDist< Dist >::ScaledDist (const Dist & *dist*, double *lbound*, double *ubound*) [inline]

Definition at line 31 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::set_bounds().

Here is the call graph for this function:

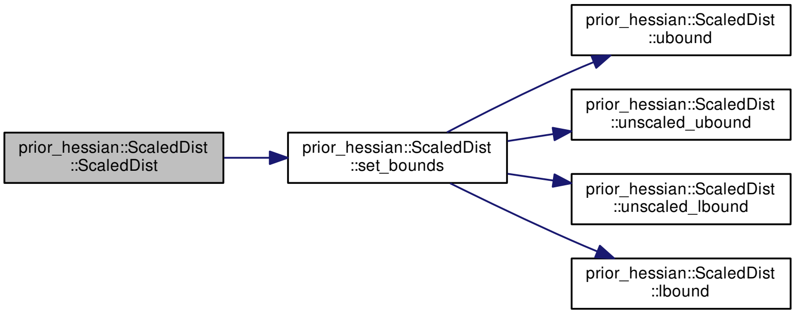

prior_hessian::ScaledDist ::ScaledDist
prior_hessian::ScaledDist ::set_bounds
prior_hessian::ScaledDist ::ubound
prior_hessian::ScaledDist ::unscaled_ubound
prior_hessian::ScaledDist ::unscaled_lbound
prior_hessian::ScaledDist ::lbound

7.61.2.6 template< class Dist > prior_hessian::ScaledDist< Dist >::ScaledDist (Dist && *dist*, double *lbound*, double *ubound*) [inline]

Definition at line 32 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::set_bounds().

Here is the call graph for this function:


prior_hessian::ScaledDist ::ScaledDist
prior_hessian::ScaledDist ::set_bounds
prior_hessian::ScaledDist ::ubound
prior_hessian::ScaledDist ::unscaled_ubound
prior_hessian::ScaledDist ::unscaled_lbound
prior_hessian::ScaledDist ::lbound

7.61.3 Member Function Documentation

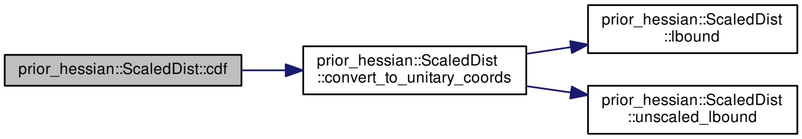
7.61.3.1 template<class Dist > double prior_hessian::ScaledDist< Dist >::cdf (double *x*) const

Definition at line 112 of file ScaledDist.h.

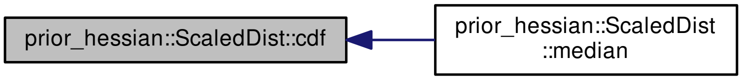
References prior_hessian::ScaledDist< Dist >::convert_to_unitary_coords().

Referenced by prior_hessian::ScaledDist< Dist >::median().

Here is the call graph for this function:


prior_hessian::ScaledDist::cdf
prior_hessian::ScaledDist ::convert_to_unitary_coords
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::unscaled_lbound

Here is the caller graph for this function:


prior_hessian::ScaledDist::cdf
prior_hessian::ScaledDist ::median

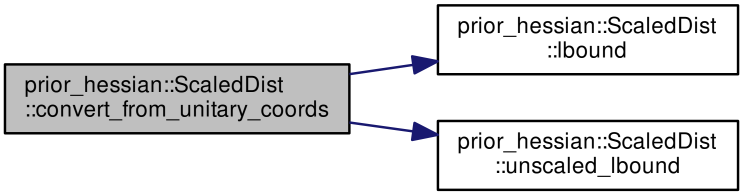
7.61.3.2 template< class Dist > double prior_hessian::ScaledDist< Dist >::convert_from_unitary_coords (double *u*) const [protected]

Definition at line 143 of file ScaledDist.h.

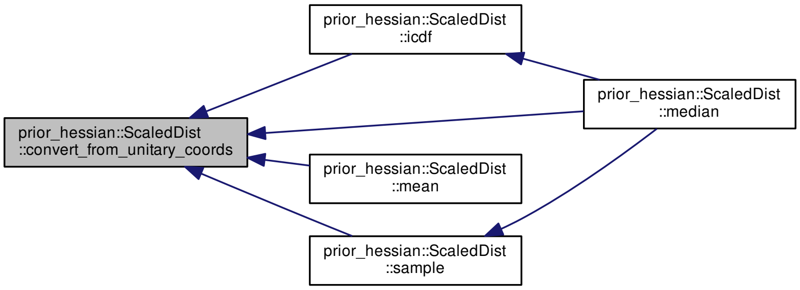
References prior_hessian::ScaledDist< Dist >::lbound(), prior_hessian::ScaledDist< Dist >::scaling_ratio, and prior_hessian::ScaledDist< Dist >::unscaled_lbound().

Referenced by prior_hessian::ScaledDist< Dist >::icdf(), prior_hessian::ScaledDist< Dist >::mean(), prior_hessian::ScaledDist< Dist >::median(), and prior_hessian::ScaledDist< Dist >::sample().

Here is the call graph for this function:


prior_hessian::ScaledDist ::convert_from_unitary_coords
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::unscaled_lbound

Here is the caller graph for this function:


prior_hessian::ScaledDist ::convert_from_unitary_coords
prior_hessian::ScaledDist ::icdf
prior_hessian::ScaledDist ::median
prior_hessian::ScaledDist ::mean
prior_hessian::ScaledDist ::sample

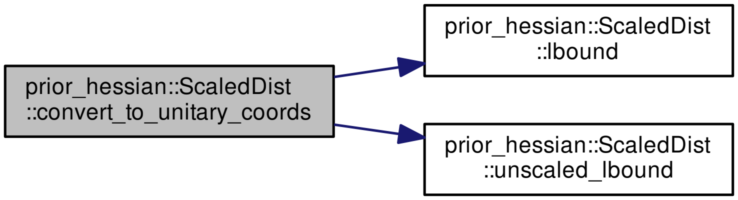
7.61.3.3 template< class Dist > double prior_hessian::ScaledDist< Dist >::convert_to_unitary_coords (double *x*) const [protected]

Definition at line 137 of file ScaledDist.h.

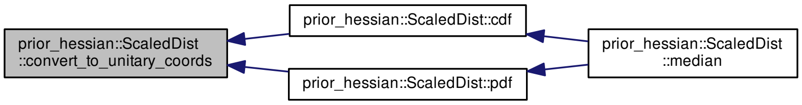
References prior_hessian::ScaledDist< Dist >::lbound(), prior_hessian::ScaledDist< Dist >::scaling_ratio, and prior_hessian::ScaledDist< Dist >::unscaled_lbound().

Referenced by prior_hessian::ScaledDist< Dist >::cdf(), and prior_hessian::ScaledDist< Dist >::pdf().

Here is the call graph for this function:


prior_hessian::ScaledDist ::convert_to_unitary_coords
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::unscaled_lbound

Here is the caller graph for this function:


prior_hessian::ScaledDist ::convert_to_unitary_coords
prior_hessian::ScaledDist::cdf
prior_hessian::ScaledDist::pdf
prior_hessian::ScaledDist ::median

7.61.3.4 template< class Dist > static double prior_hessian::ScaledDist< Dist >::global_lbound ( ) [inline], [static]

Definition at line 38 of file ScaledDist.h.

7.61.3.5 template< class Dist > static double prior_hessian::ScaledDist< Dist >::global_ubound ( ) [inline], [static]

Definition at line 39 of file ScaledDist.h.

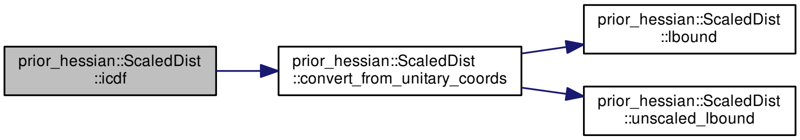
7.61.3.6 template< class Dist > double prior_hessian::ScaledDist< Dist >::icdf (double *u*) const

Definition at line 118 of file ScaledDist.h.

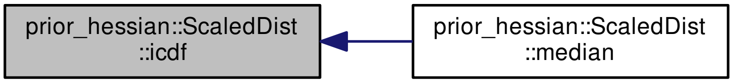
References prior_hessian::ScaledDist< Dist >::convert_from_unitary_coords().

Referenced by prior_hessian::ScaledDist< Dist >::median().

Here is the call graph for this function:


prior_hessian::ScaledDist ::icdf
prior_hessian::ScaledDist ::convert_from_unitary_coords
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::unscaled_lbound

Here is the caller graph for this function:


prior_hessian::ScaledDist ::icdf
prior_hessian::ScaledDist ::median

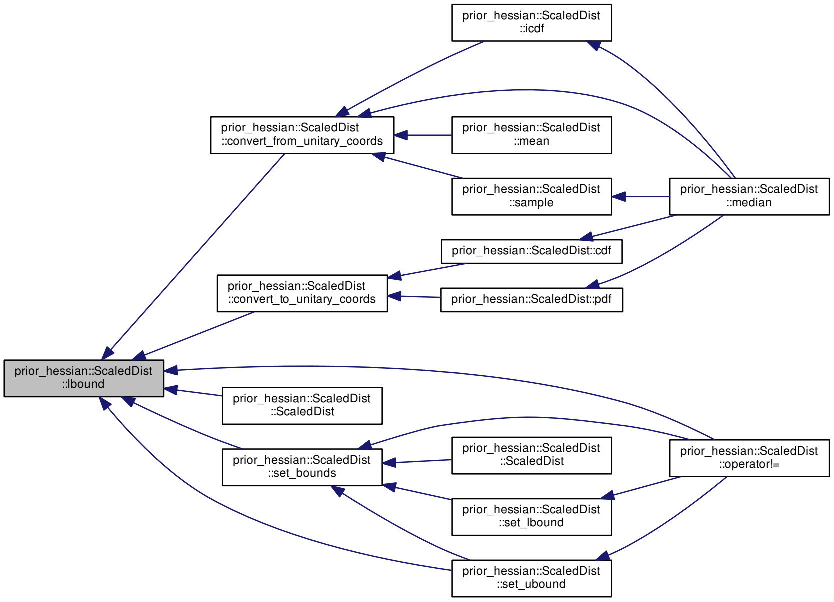
7.61.3.7 template<class Dist> double prior_hessian::ScaledDist< Dist >::lbound ( ) const [inline]

Definition at line 34 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::_scaled_lbound.

Referenced by prior_hessian::ScaledDist< Dist >::convert_from_unitary_coords(), prior_hessian::ScaledDist< Dist >::convert_to_unitary_coords(), prior_hessian::ScaledDist< Dist >::operator!=(), prior_hessian::ScaledDist< Dist >::ScaledDist(), prior_hessian::ScaledDist< Dist >::set_bounds(), and prior_hessian::ScaledDist< Dist >::set_↩ ubound().

Here is the caller graph for this function:


prior_hessian::ScaledDist ::icdf
prior_hessian::ScaledDist ::convert_from_unitary_coords
prior_hessian::ScaledDist ::mean
prior_hessian::ScaledDist ::sample
prior_hessian::ScaledDist ::median
prior_hessian::ScaledDist::cdf
prior_hessian::ScaledDist ::convert_to_unitary_coords
prior_hessian::ScaledDist::pdf
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::ScaledDist
prior_hessian::ScaledDist ::set_bounds
prior_hessian::ScaledDist ::ScaledDist
prior_hessian::ScaledDist ::operator!=
prior_hessian::ScaledDist ::set_lbound
prior_hessian::ScaledDist ::set_ubound

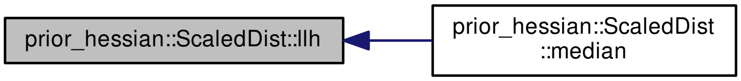
7.61.3.8 template< class Dist > double prior_hessian::ScaledDist< Dist >::llh (double *x*) const

Definition at line 106 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::llh_scaling_const.

Referenced by prior_hessian::ScaledDist< Dist >::median().

Here is the caller graph for this function:

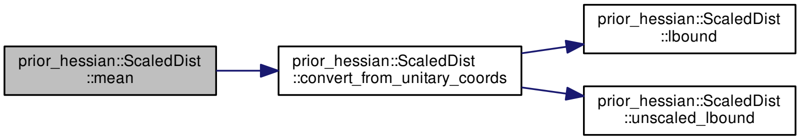

prior_hessian::ScaledDist::llh
prior_hessian::ScaledDist ::median

7.61.3.9 template< class Dist > double prior_hessian::ScaledDist< Dist >::mean ( ) const [inline]

Definition at line 53 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::convert_from_unitary_coords().

Here is the call graph for this function:

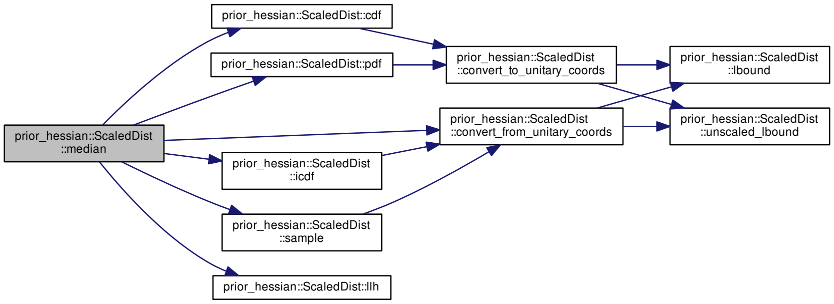

prior_hessian::ScaledDist ::mean
prior_hessian::ScaledDist ::convert_from_unitary_coords
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::unscaled_lbound

7.61.3.10 template< class Dist > double prior_hessian::ScaledDist< Dist >::median ( ) const [inline]

Definition at line 54 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::cdf(), prior_hessian::ScaledDist< Dist >::convert_from_unitary_coords(), prior_hessian::ScaledDist< Dist >::icdf(), prior_hessian::ScaledDist< Dist >::llh(), prior_hessian::ScaledDist< Dist >::pdf(), and prior_hessian::ScaledDist< Dist >::sample().

Here is the call graph for this function:

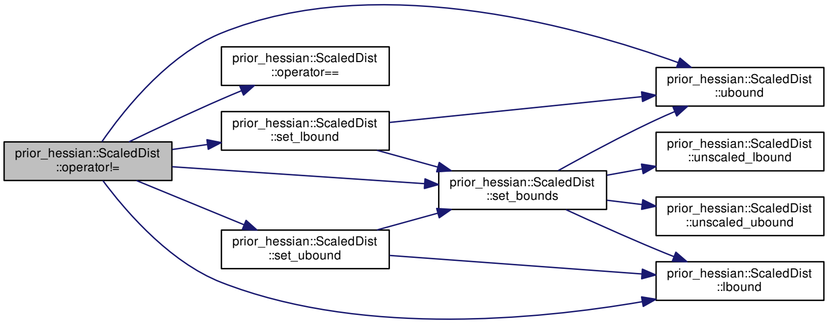

prior_hessian::ScaledDist::cdf
prior_hessian::ScaledDist::pdf
prior_hessian::ScaledDist ::convert_to_unitary_coords
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::median
prior_hessian::ScaledDist ::convert_from_unitary_coords
prior_hessian::ScaledDist ::unscaled_lbound
prior_hessian::ScaledDist ::icdf
prior_hessian::ScaledDist ::sample
prior_hessian::ScaledDist::llh

7.61.3.11 template< class Dist > bool prior_hessian::ScaledDist< Dist >::operator!= (const ScaledDist< Dist > & *o*) const [inline]

Definition at line 47 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::lbound(), prior_hessian::ScaledDist< Dist >::operator==(), prior_hessian::ScaledDist< Dist >::set_bounds(), prior_hessian::ScaledDist< Dist >::set_lbound(), prior_hessian::ScaledDist< Dist >::set_ubound(), and prior_hessian::ScaledDist< Dist >::ubound().

Here is the call graph for this function:


prior_hessian::ScaledDist ::operator!=
prior_hessian::ScaledDist ::operator==
prior_hessian::ScaledDist ::set_lbound
prior_hessian::ScaledDist ::set_ubound
prior_hessian::ScaledDist ::set_bounds
prior_hessian::ScaledDist ::ubound
prior_hessian::ScaledDist ::unscaled_lbound
prior_hessian::ScaledDist ::unscaled_ubound
prior_hessian::ScaledDist ::lbound

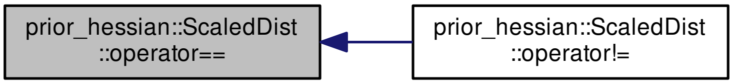
7.61.3.12 template<class Dist> bool prior_hessian::ScaledDist< Dist >::operator== (const ScaledDist< Dist > & *o*) const [inline]

Definition at line 41 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::_scaled_lbound, and prior_hessian::ScaledDist< Dist >::_scaled_ubound.

Referenced by prior_hessian::ScaledDist< Dist >::operator!=().

Here is the caller graph for this function:


prior_hessian::ScaledDist ::operator==
prior_hessian::ScaledDist ::operator!=

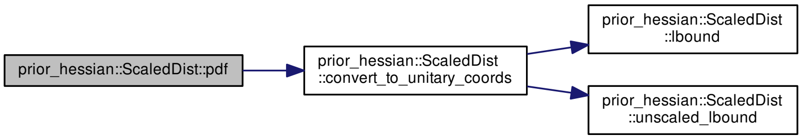
7.61.3.13 template<class Dist > double prior_hessian::ScaledDist< Dist >::pdf (double *x*) const

Definition at line 124 of file ScaledDist.h.

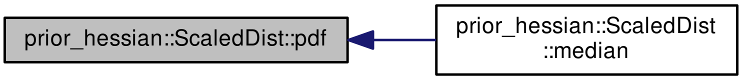
References prior_hessian::ScaledDist< Dist >::convert_to_unitary_coords(), and prior_hessian::ScaledDist< Dist >::scaling_ratio.

Referenced by prior_hessian::ScaledDist< Dist >::median().

Here is the call graph for this function:


prior_hessian::ScaledDist::pdf
prior_hessian::ScaledDist ::convert_to_unitary_coords
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::unscaled_lbound

Here is the caller graph for this function:


prior_hessian::ScaledDist::pdf
prior_hessian::ScaledDist ::median

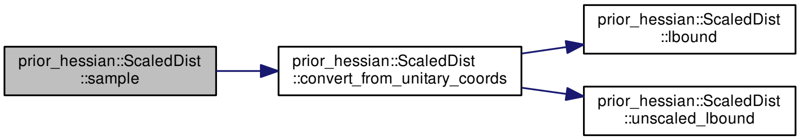
7.61.3.14 template< class Dist > template< class RngT > double prior_hessian::ScaledDist< Dist >::sample (RngT & *rng*) const

Definition at line 131 of file ScaledDist.h.

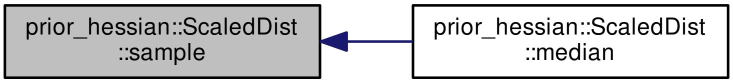
References prior_hessian::ScaledDist< Dist >::convert_from_unitary_coords().

Referenced by prior_hessian::ScaledDist< Dist >::median().

Here is the call graph for this function:


prior_hessian::ScaledDist ::sample
prior_hessian::ScaledDist ::convert_from_unitary_coords
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::unscaled_lbound

Here is the caller graph for this function:



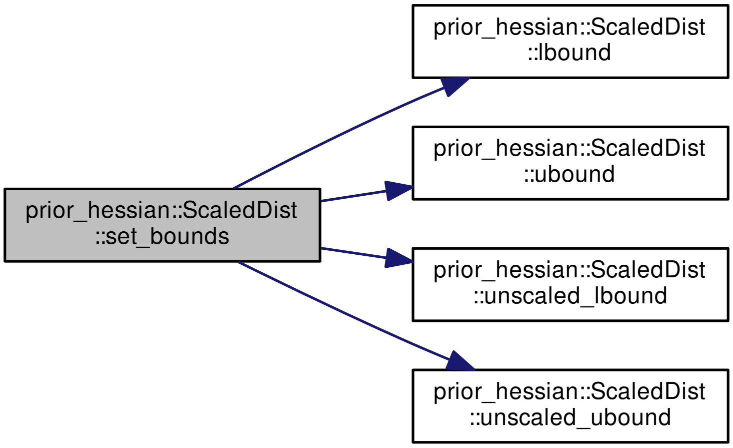
7.61.3.15 template< class Dist > void prior_hessian::ScaledDist< Dist >::set_bounds (double *lbound,* double *ubound*)

Definition at line 76 of file ScaledDist.h.

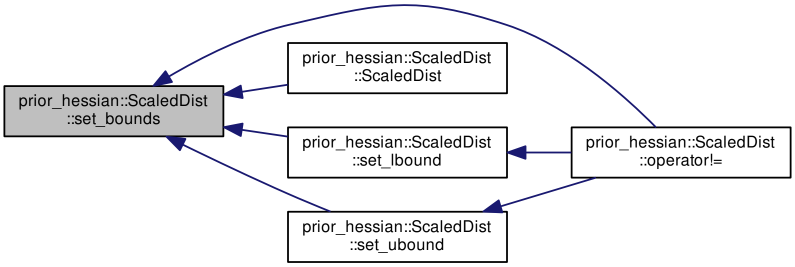
References prior_hessian::ScaledDist< Dist >::_scaled_lbound, prior_hessian::ScaledDist< Dist >::_scaled_ubound, prior_hessian::ScaledDist< Dist >::lbound(), prior_hessian::ScaledDist< Dist >::llh_scaling_const, prior_hessian::↩ ScaledDist< Dist >::scaling_ratio, prior_hessian::ScaledDist< Dist >::ubound(), prior_hessian::ScaledDist< Dist >↩ ::unscaled_lbound(), and prior_hessian::ScaledDist< Dist >::unscaled_ubound().

Referenced by prior_hessian::ScaledDist< Dist >::operator!=(), prior_hessian::ScaledDist< Dist >::ScaledDist(), prior_hessian::ScaledDist< Dist >::set_lbound(), and prior_hessian::ScaledDist< Dist >::set_ubound().

Here is the call graph for this function:


prior_hessian::ScaledDist
::set_bounds
prior_hessian::ScaledDist
::lbound
prior_hessian::ScaledDist
::ubound
prior_hessian::ScaledDist
::unscaled_lbound
prior_hessian::ScaledDist
::unscaled_ubound

Here is the caller graph for this function:


prior_hessian::ScaledDist
::set_bounds
prior_hessian::ScaledDist
::ScaledDist
prior_hessian::ScaledDist
::set_lbound
prior_hessian::ScaledDist
::operator!=
prior_hessian::ScaledDist
::set_ubound

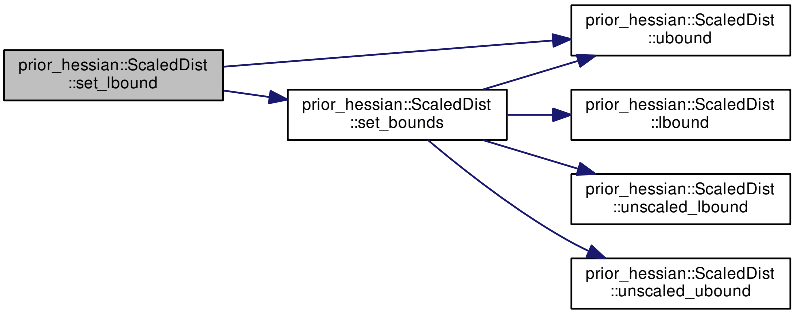
7.61.3.16 template< class Dist > void prior_hessian::ScaledDist< Dist >::set_lbound (double *lbound*)

Definition at line 98 of file ScaledDist.h.

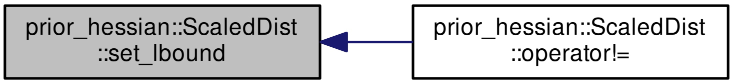
References prior_hessian::ScaledDist< Dist >::set_bounds(), and prior_hessian::ScaledDist< Dist >::ubound().

Referenced by prior_hessian::ScaledDist< Dist >::operator!=().

Here is the call graph for this function:


prior_hessian::ScaledDist
::set_lbound
prior_hessian::ScaledDist
::ubound
prior_hessian::ScaledDist
::set_bounds
prior_hessian::ScaledDist
::lbound
prior_hessian::ScaledDist
::unscaled_lbound
prior_hessian::ScaledDist
::unscaled_ubound

Here is the caller graph for this function:



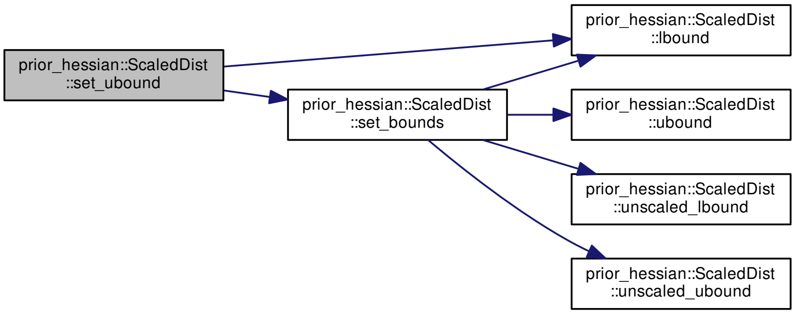
7.61.3.17 template<class Dist > void prior_hessian::ScaledDist< Dist >::set_ubound (double *ubound*)

Definition at line 102 of file ScaledDist.h.

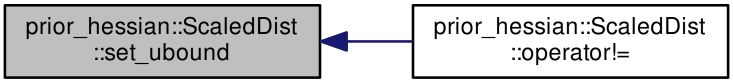
References prior_hessian::ScaledDist< Dist >::lbound(), and prior_hessian::ScaledDist< Dist >::set_bounds().

Referenced by prior_hessian::ScaledDist< Dist >::operator!=().

Here is the call graph for this function:


prior_hessian::ScaledDist ::set_ubound
prior_hessian::ScaledDist ::set_bounds
prior_hessian::ScaledDist ::lbound
prior_hessian::ScaledDist ::ubound
prior_hessian::ScaledDist ::unscaled_lbound
prior_hessian::ScaledDist ::unscaled_ubound

Here is the caller graph for this function:


prior_hessian::ScaledDist ::set_ubound
prior_hessian::ScaledDist ::operator!=

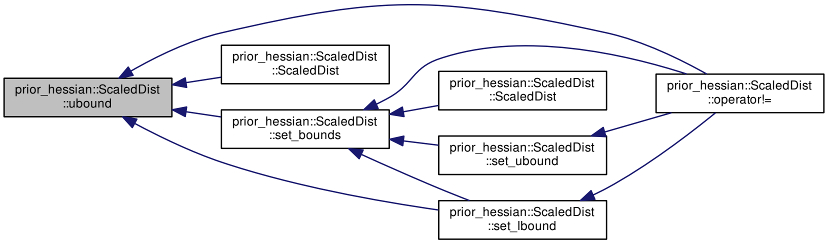
7.61.3.18 template<class Dist> double prior_hessian::ScaledDist< Dist >::ubound ( ) const [inline]

Definition at line 35 of file ScaledDist.h.

References prior_hessian::ScaledDist< Dist >::_scaled_ubound.

Referenced by prior_hessian::ScaledDist< Dist >::operator!=(), prior_hessian::ScaledDist< Dist >::ScaledDist(), prior_hessian::ScaledDist< Dist >::set_bounds(), and prior_hessian::ScaledDist< Dist >::set_lbound().

Here is the caller graph for this function:

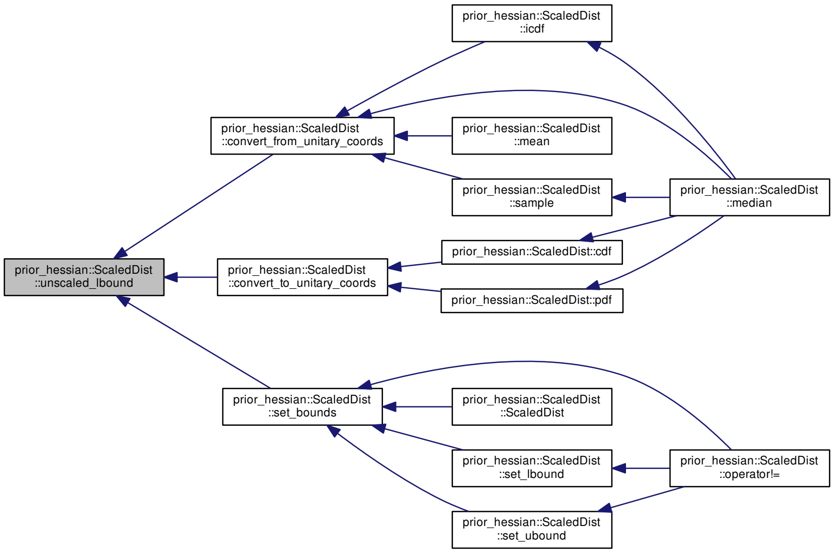

prior_hessian::ScaledDist::ubound
prior_hessian::ScaledDist::ScaledDist
prior_hessian::ScaledDist::set_bounds
prior_hessian::ScaledDist::ScaledDist
prior_hessian::ScaledDist::set_ubound
prior_hessian::ScaledDist::set_lbound
prior_hessian::ScaledDist::operator!=

7.61.3.19 template< class Dist > static double prior_hessian::ScaledDist< Dist >::unscaled_lbound ( ) [inline], [static]

Definition at line 36 of file ScaledDist.h.

Referenced by prior_hessian::ScaledDist< Dist >::convert_from_unitary_coords(), prior_hessian::ScaledDist< Dist >::convert_to_unitary_coords(), and prior_hessian::ScaledDist< Dist >::set_bounds().

Here is the caller graph for this function:

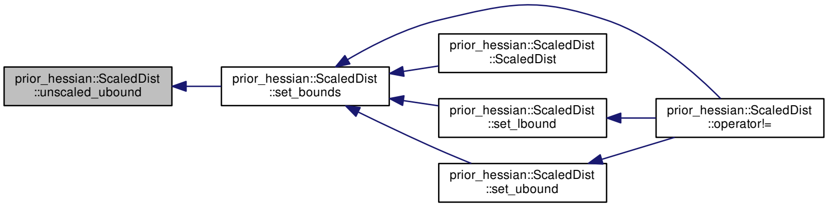

prior_hessian::ScaledDist::icdf
prior_hessian::ScaledDist::convert_from_unitary_coords
prior_hessian::ScaledDist::mean
prior_hessian::ScaledDist::sample
prior_hessian::ScaledDist::median
prior_hessian::ScaledDist::cdf
prior_hessian::ScaledDist::unscaled_lbound
prior_hessian::ScaledDist::convert_to_unitary_coords
prior_hessian::ScaledDist::pdf
prior_hessian::ScaledDist::set_bounds
prior_hessian::ScaledDist::ScaledDist
prior_hessian::ScaledDist::set_lbound
prior_hessian::ScaledDist::operator!=
prior_hessian::ScaledDist::set_ubound

7.61.3.20 template< class Dist > static double prior_hessian::ScaledDist< Dist >::unscaled_ubound ( ) [inline], [static]

Definition at line 37 of file ScaledDist.h.

Referenced by prior_hessian::ScaledDist< Dist >::set_bounds().

Here is the caller graph for this function:


prior_hessian::ScaledDist ::unscaled_ubound
prior_hessian::ScaledDist ::set_bounds
prior_hessian::ScaledDist ::ScaledDist
prior_hessian::ScaledDist ::set_lbound
prior_hessian::ScaledDist ::set_ubound
prior_hessian::ScaledDist ::operator!=

7.61.4 Member Data Documentation

7.61.4.1 template<class Dist> double prior_hessian::ScaledDist< Dist >::_scaled_lbound [protected]

Definition at line 64 of file ScaledDist.h.

Referenced by prior_hessian::ScaledDist< Dist >::lbound(), prior_hessian::ScaledDist< Dist >::operator==(), and prior_hessian::ScaledDist< Dist >::set_bounds().

7.61.4.2 template<class Dist> double prior_hessian::ScaledDist< Dist >::_scaled_ubound [protected]

Definition at line 65 of file ScaledDist.h.

Referenced by prior_hessian::ScaledDist< Dist >::operator==(), prior_hessian::ScaledDist< Dist >::set_bounds(), and prior_hessian::ScaledDist< Dist >::ubound().

7.61.4.3 template<class Dist> double prior_hessian::ScaledDist< Dist >::llh_scaling_const [protected]

Definition at line 68 of file ScaledDist.h.

Referenced by prior_hessian::ScaledDist< Dist >::llh(), and prior_hessian::ScaledDist< Dist >::set_bounds().

7.61.4.4 template<class Dist> double prior_hessian::ScaledDist< Dist >::scaling_ratio [protected]

Definition at line 67 of file ScaledDist.h.

Referenced by prior_hessian::ScaledDist< Dist >::convert_from_unitary_coords(), prior_hessian::ScaledDist< Dist >::convert_to_unitary_coords(), prior_hessian::ScaledDist< Dist >::pdf(), and prior_hessian::ScaledDist< Dist >↩ ::set_bounds().

The documentation for this class was generated from the following file:

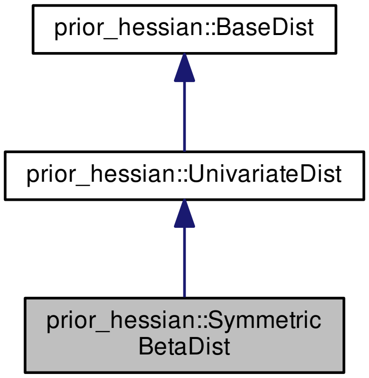
- ScaledDist.h

7.62 prior_hessian::SymmetricBetaDist Class Reference

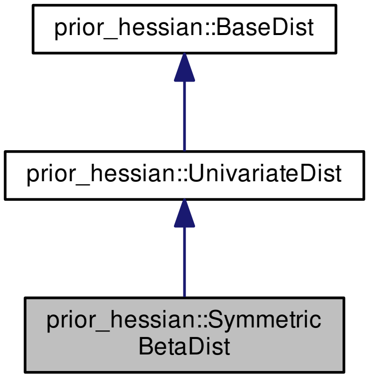
Single parameter beta distribution where $\alpha = \beta$, leading to symmetric bounded distribution.

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/←
SymmetricBetaDist.h>
```

Inheritance diagram for prior_hessian::SymmetricBetaDist:



Collaboration diagram for prior_hessian::SymmetricBetaDist:



Public Types

- using NparamsVecT = arma::Col< double >::fixed< _num_params >

Public Member Functions

- SymmetricBetaDist ()
- SymmetricBetaDist (double beta)
- template<class Vec , meta::ConstructableIfNotSelfT< Vec, SymmetricBetaDist > = true>
  SymmetricBetaDist (const Vec &params)
- double beta () const
- void set_beta (double val)
- double get_param (int idx) const
- void set_param (int idx, double val)
- NparamsVecT params () const
- void set_params (double beta)
- template<class Vec >
  void set_params (const Vec &p)
- bool operator== (const SymmetricBetaDist &o) const
- bool operator!= (const SymmetricBetaDist &o) const
- double mean () const
- double median () const
- double cdf (double x) const
- double icdf (double u) const
- double pdf (double x) const
- double llh (double x) const
- double rllh (double x) const
- double grad (double x) const
- double grad2 (double x) const
- void grad_grad2_accumulate (double x, double &g, double &g2) const
- template<class RngT >
  double sample (RngT &rng) const
- template<class IterT >
  void set_params_iter (IterT &params)

Static Public Member Functions

- static constexpr IdxT num_params ()
- static constexpr double lbound ()
- static constexpr double ubound ()
- static bool in_bounds (double u)
- static const StringVecT & param_names ()
- static const VecT & param_lbound ()
- static const VecT & param_ubound ()
- static bool check_params (double beta)
- template<class Vec >
  static bool check_params (Vec &p)
- template<class IterT >
  static bool check_params_iter (IterT &params)
- static constexpr IdxT num_dim ()

Static Protected Member Functions

- static void check_bounds (double lbound, double ubound)

7.62.1 Detailed Description

Single parameter beta distribution where $\alpha = \beta$, leading to symmetric bounded distribution.

Definition at line 22 of file SymmetricBetaDist.h.

7.62.2 Member Typedef Documentation

7.62.2.1 using **prior_hessian::SymmetricBetaDist::NparamsVecT** = arma::Col<double>::fixed<_num_params>

Definition at line 26 of file SymmetricBetaDist.h.

7.62.3 Constructor & Destructor Documentation

7.62.3.1 prior_hessian::SymmetricBetaDist::SymmetricBetaDist ( ) [inline]

Definition at line 42 of file SymmetricBetaDist.h.

7.62.3.2 prior_hessian::SymmetricBetaDist::SymmetricBetaDist (double *beta*) [explicit]

Definition at line 23 of file SymmetricBetaDist.cpp.

7.62.3.3 template<class Vec , meta::ConstructableIfNotSelfT< Vec, SymmetricBetaDist > = true> prior_hessian::SymmetricBetaDist::SymmetricBetaDist (const Vec & *params*) [inline], [explicit]

Definition at line 45 of file SymmetricBetaDist.h.

7.62.4 Member Function Documentation

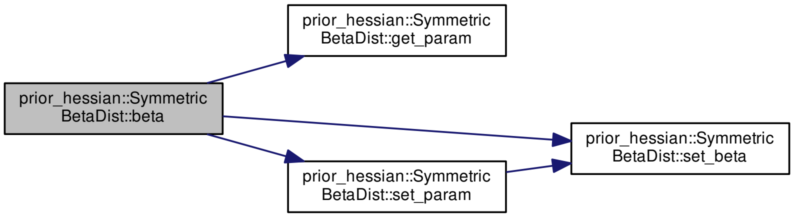
7.62.4.1 double prior_hessian::SymmetricBetaDist::beta ( ) const [inline]

Definition at line 47 of file SymmetricBetaDist.h.

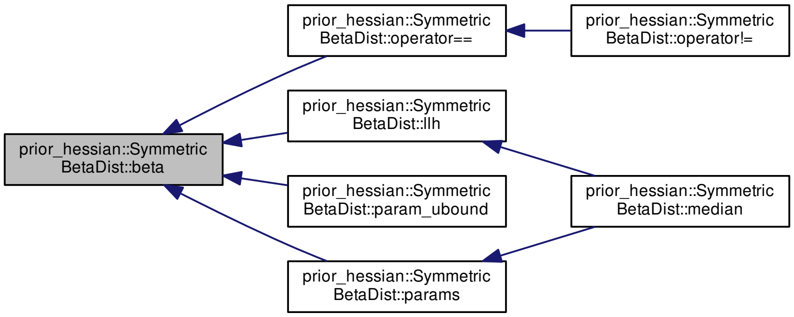
References get_param(), set_beta(), and set_param().

Referenced by llh(), operator==(), param_ubound(), and params().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::beta
prior_hessian::Symmetric BetaDist::get_param
prior_hessian::Symmetric BetaDist::set_beta
prior_hessian::Symmetric BetaDist::set_param

Here is the caller graph for this function:

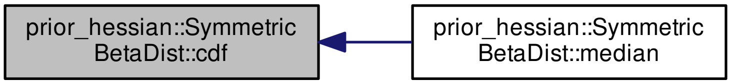

prior_hessian::Symmetric BetaDist::operator==
prior_hessian::Symmetric BetaDist::operator!=
prior_hessian::Symmetric BetaDist::llh
prior_hessian::Symmetric BetaDist::beta
prior_hessian::Symmetric BetaDist::param_ubound
prior_hessian::Symmetric BetaDist::median
prior_hessian::Symmetric BetaDist::params

7.62.4.2 double prior_hessian::SymmetricBetaDist::cdf (double *x*) const

Definition at line 36 of file SymmetricBetaDist.cpp.

Referenced by median().

Here is the caller graph for this function:

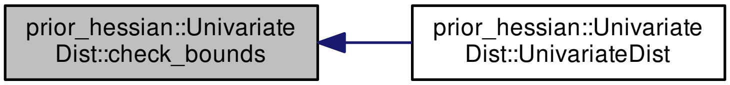

prior_hessian::Symmetric BetaDist::cdf
prior_hessian::Symmetric BetaDist::median

7.62.4.3 void prior_hessian::UnivariateDist::check_bounds (double *lbound,* double *ubound*) [static], [protected], [inherited]

Definition at line 17 of file UnivariateDist.cpp.

Referenced by prior_hessian::UnivariateDist::UnivariateDist().

Here is the caller graph for this function:

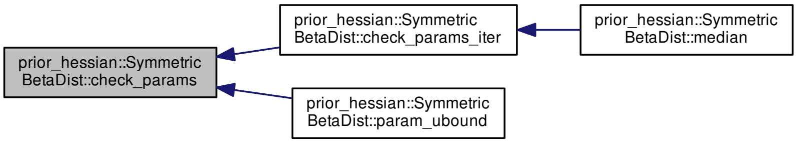

prior_hessian::Univariate Dist::check_bounds
prior_hessian::Univariate Dist::UnivariateDist

7.62.4.4 bool prior_hessian::SymmetricBetaDist::check_params (double *beta*) [inline], [static]

Definition at line 101 of file SymmetricBetaDist.h.

Referenced by check_params_iter(), and param_ubound().

Here is the caller graph for this function:


prior_hessian::Symmetric BetaDist::check_params
prior_hessian::Symmetric BetaDist::check_params_iter
prior_hessian::Symmetric BetaDist::median
prior_hessian::Symmetric BetaDist::param_ubound

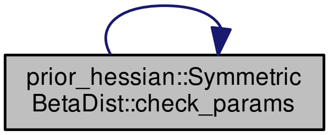
7.62.4.5 template<class Vec > static bool prior_hessian::SymmetricBetaDist::check_params (Vec & *p*) [inline], [static]

Definition at line 40 of file SymmetricBetaDist.h.

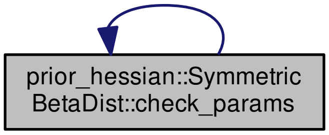
References check_params().

Referenced by check_params().

Here is the call graph for this function:



Here is the caller graph for this function:



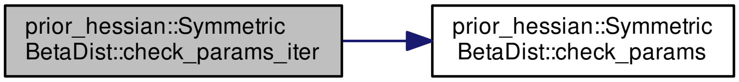
7.62.4.6 template<class IterT > bool prior_hessian::SymmetricBetaDist::check_params_iter (IterT & *params*) [static]

Definition at line 167 of file SymmetricBetaDist.h.

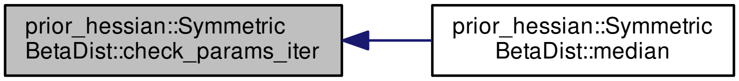
References check_params().

Referenced by median().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::check_params_iter
prior_hessian::Symmetric BetaDist::check_params

Here is the caller graph for this function:

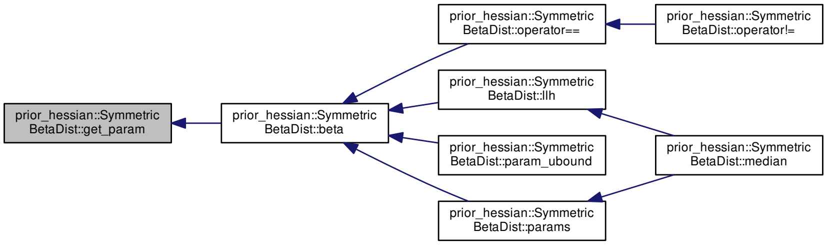

prior_hessian::Symmetric BetaDist::check_params_iter
prior_hessian::Symmetric BetaDist::median

7.62.4.7 double prior_hessian::SymmetricBetaDist::get_param (int *idx*) const [inline]

Definition at line 107 of file SymmetricBetaDist.h.

Referenced by beta().

Here is the caller graph for this function:

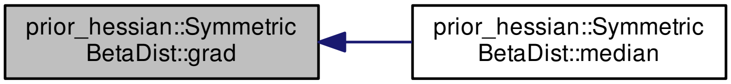

prior_hessian::Symmetric BetaDist::get_param
prior_hessian::Symmetric BetaDist::beta
prior_hessian::Symmetric BetaDist::operator==
prior_hessian::Symmetric BetaDist::llh
prior_hessian::Symmetric BetaDist::param_ubound
prior_hessian::Symmetric BetaDist::params
prior_hessian::Symmetric BetaDist::operator!=
prior_hessian::Symmetric BetaDist::median

7.62.4.8 double prior_hessian::SymmetricBetaDist::grad (double *x*) const [inline]

Definition at line 137 of file SymmetricBetaDist.h.

Referenced by median().

Here is the caller graph for this function:


prior_hessian::Symmetric BetaDist::grad
prior_hessian::Symmetric BetaDist::median

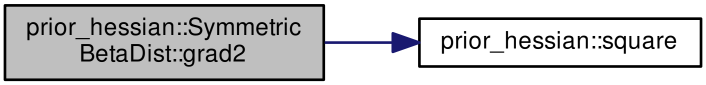
7.62.4.9 double prior_hessian::SymmetricBetaDist::grad2 (double *x*) const [inline]

Definition at line 143 of file SymmetricBetaDist.h.

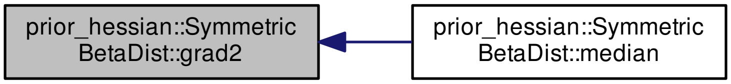
References prior_hessian::square().

Referenced by median().

Here is the call graph for this function:



Here is the caller graph for this function:

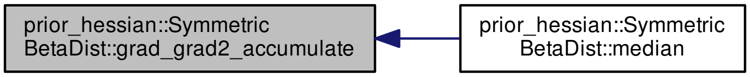

prior_hessian::Symmetric BetaDist::grad2
prior_hessian::Symmetric BetaDist::median

7.62.4.10 void prior_hessian::SymmetricBetaDist::grad_grad2_accumulate (double *x*, double & *g*, double & *g2*) const [inline]

Definition at line 149 of file SymmetricBetaDist.h.

Referenced by median().

Here is the caller graph for this function:

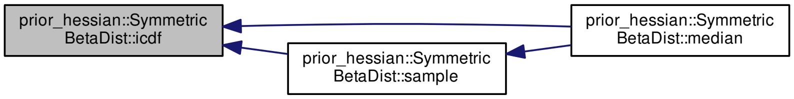


7.62.4.11 double prior_hessian::SymmetricBetaDist::icdf (double *u*) const

Definition at line 43 of file SymmetricBetaDist.cpp.

Referenced by median(), and sample().

Here is the caller graph for this function:

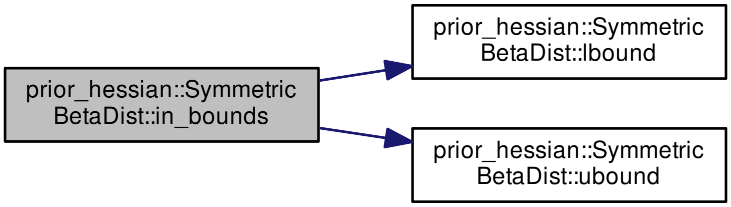


7.62.4.12 static bool prior_hessian::SymmetricBetaDist::in_bounds (double *u*) [inline], [static]

Definition at line 32 of file SymmetricBetaDist.h.

References lbound(), and ubound().

Here is the call graph for this function:

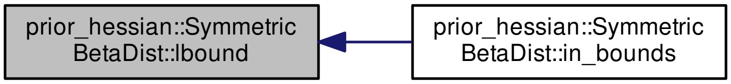


7.62.4.13 static constexpr double prior_hessian::SymmetricBetaDist::lbound ( ) [inline], [static]

Definition at line 30 of file SymmetricBetaDist.h.

Referenced by in_bounds().

Here is the caller graph for this function:



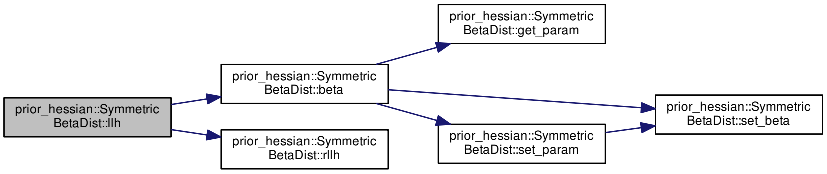
7.62.4.14 double prior_hessian::SymmetricBetaDist::llh (double *x*) const

Definition at line 55 of file SymmetricBetaDist.cpp.

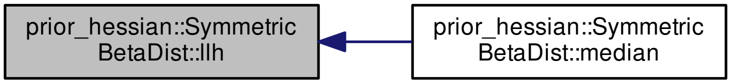
References beta(), and rllh().

Referenced by median().

Here is the call graph for this function:



Here is the caller graph for this function:



7.62.4.15 double prior_hessian::SymmetricBetaDist::mean ( ) const [inline]

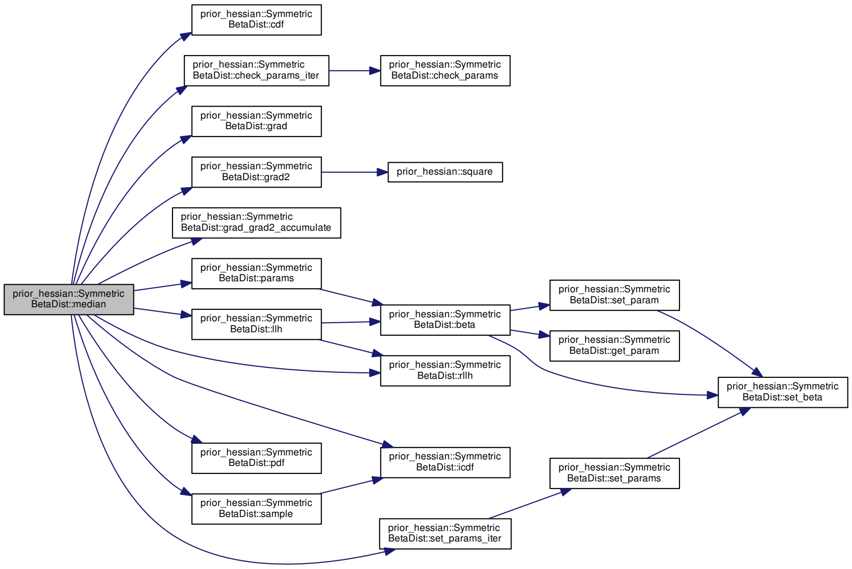
Definition at line 60 of file SymmetricBetaDist.h.

7.62.4.16 double prior_hessian::SymmetricBetaDist::median ( ) const [inline]

Definition at line 61 of file SymmetricBetaDist.h.

References cdf(), check_params_iter(), grad(), grad2(), grad_grad2_accumulate(), icdf(), llh(), params(), pdf(), rllh(), sample(), and set_params_iter().

Here is the call graph for this function:



7.62.4.17 static constexpr IdxT prior_hessian::UnivariateDist::num_dim ( ) [inline], [static], [inherited]

Definition at line 17 of file UnivariateDist.h.

7.62.4.18 static constexpr IdxT prior_hessian::SymmetricBetaDist::num_params ( ) [inline], [static]

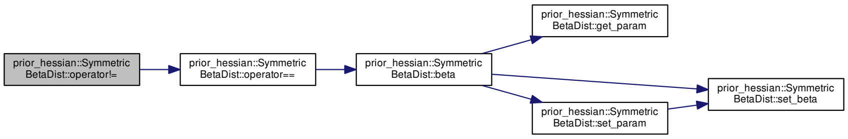
Definition at line 29 of file SymmetricBetaDist.h.

7.62.4.19 bool prior_hessian::SymmetricBetaDist::operator!= (const SymmetricBetaDist & *o*) const [inline]

Definition at line 58 of file SymmetricBetaDist.h.

References operator==().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::operator!=
prior_hessian::Symmetric BetaDist::operator==
prior_hessian::Symmetric BetaDist::beta
prior_hessian::Symmetric BetaDist::get_param
prior_hessian::Symmetric BetaDist::set_param
prior_hessian::Symmetric BetaDist::set_beta

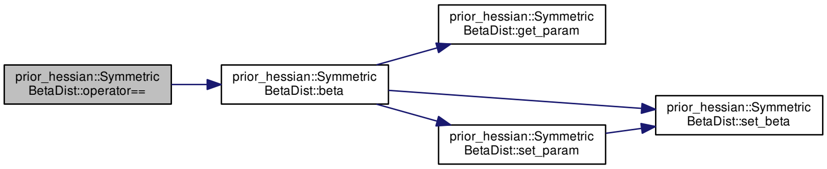
7.62.4.20 bool prior_hessian::SymmetricBetaDist::operator== (const SymmetricBetaDist & *o*) const [inline]

Definition at line 57 of file SymmetricBetaDist.h.

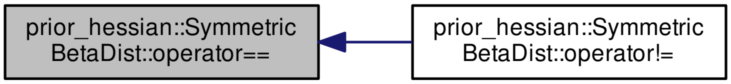
References beta().

Referenced by operator!=().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::operator==
prior_hessian::Symmetric BetaDist::beta
prior_hessian::Symmetric BetaDist::get_param
prior_hessian::Symmetric BetaDist::set_param
prior_hessian::Symmetric BetaDist::set_beta

Here is the caller graph for this function:


prior_hessian::Symmetric BetaDist::operator==
prior_hessian::Symmetric BetaDist::operator!=

7.62.4.21 static const VecT& prior_hessian::SymmetricBetaDist::param_lbound ( ) [inline], [static]

Definition at line 35 of file SymmetricBetaDist.h.

7.62.4.22 static const StringVecT& prior_hessian::SymmetricBetaDist::param_names ( ) [inline], [static]

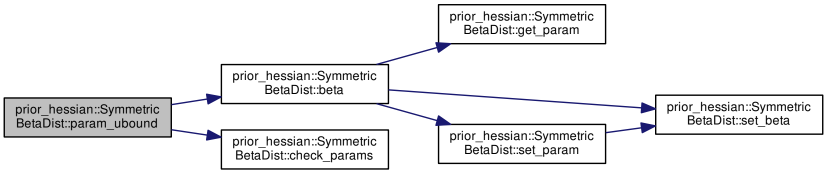
Definition at line 34 of file SymmetricBetaDist.h.

7.62.4.23 static const VecT& prior_hessian::SymmetricBetaDist::param_ubound ( ) [inline], [static]

Definition at line 36 of file SymmetricBetaDist.h.

References beta(), and check_params().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::param_ubound
prior_hessian::Symmetric BetaDist::beta
prior_hessian::Symmetric BetaDist::check_params
prior_hessian::Symmetric BetaDist::get_param
prior_hessian::Symmetric BetaDist::set_param
prior_hessian::Symmetric BetaDist::set_beta

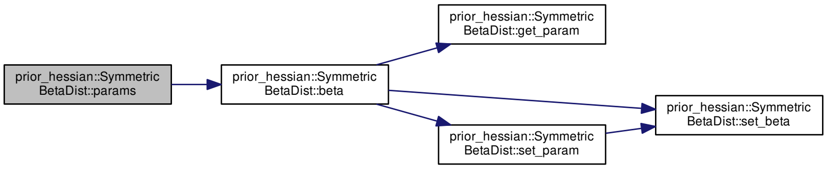
7.62.4.24 NparamsVecT prior_hessian::SymmetricBetaDist::params ( ) const [inline]

Definition at line 52 of file SymmetricBetaDist.h.

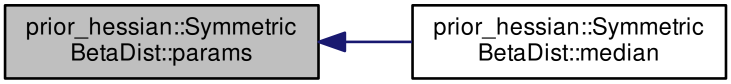
References beta().

Referenced by median().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::params
prior_hessian::Symmetric BetaDist::beta
prior_hessian::Symmetric BetaDist::get_param
prior_hessian::Symmetric BetaDist::set_param
prior_hessian::Symmetric BetaDist::set_beta

Here is the caller graph for this function:

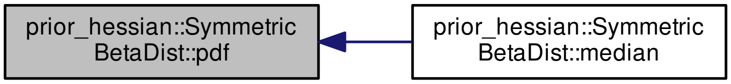

prior_hessian::Symmetric BetaDist::params
prior_hessian::Symmetric BetaDist::median

7.62.4.25 double prior_hessian::SymmetricBetaDist::pdf (double *x*) const

Definition at line 50 of file SymmetricBetaDist.cpp.

Referenced by median().

Here is the caller graph for this function:

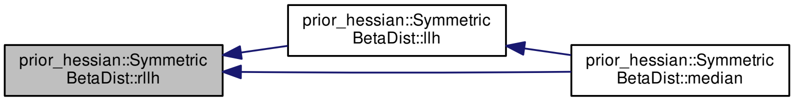

prior_hessian::Symmetric BetaDist::pdf
prior_hessian::Symmetric BetaDist::median

7.62.4.26 double prior_hessian::SymmetricBetaDist::rllh (double *x*) const [inline]

Definition at line 131 of file SymmetricBetaDist.h.

Referenced by llh(), and median().

Here is the caller graph for this function:


prior_hessian::Symmetric BetaDist::rllh
prior_hessian::Symmetric BetaDist::llh
prior_hessian::Symmetric BetaDist::median

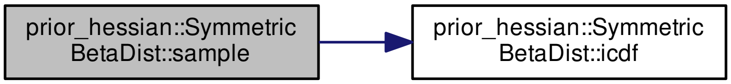
7.62.4.27 template<class RngT > double prior_hessian::SymmetricBetaDist::sample (RngT & *rng*) const

Definition at line 159 of file SymmetricBetaDist.h.

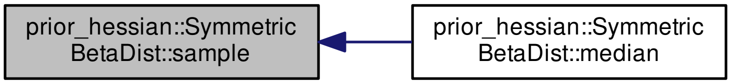
References icdf().

Referenced by median().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::sample
prior_hessian::Symmetric BetaDist::icdf

Here is the caller graph for this function:

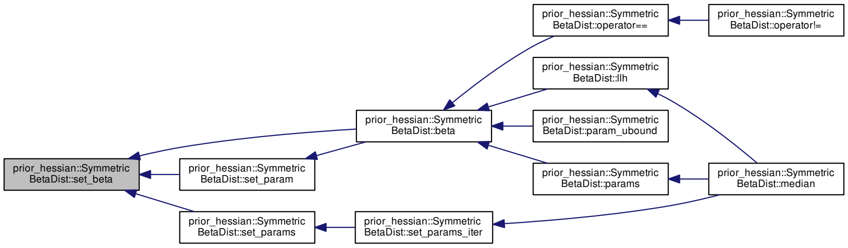

prior_hessian::Symmetric BetaDist::sample
prior_hessian::Symmetric BetaDist::median

7.62.4.28 void prior_hessian::SymmetricBetaDist::set_beta (double *val*)

Definition at line 30 of file SymmetricBetaDist.cpp.

Referenced by beta(), set_param(), and set_params().

Here is the caller graph for this function:


prior_hessian::Symmetric BetaDist::operator==
prior_hessian::Symmetric BetaDist::operator!=
prior_hessian::Symmetric BetaDist::llh
prior_hessian::Symmetric BetaDist::beta
prior_hessian::Symmetric BetaDist::param_ubound
prior_hessian::Symmetric BetaDist::set_beta
prior_hessian::Symmetric BetaDist::set_param
prior_hessian::Symmetric BetaDist::params
prior_hessian::Symmetric BetaDist::median
prior_hessian::Symmetric BetaDist::set_params
prior_hessian::Symmetric BetaDist::set_params_iter

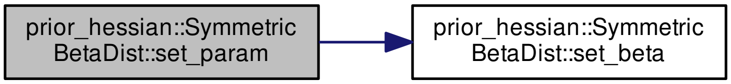
7.62.4.29 void prior_hessian::SymmetricBetaDist::set_param (int *idx,* double *val*) [inline]

Definition at line 119 of file SymmetricBetaDist.h.

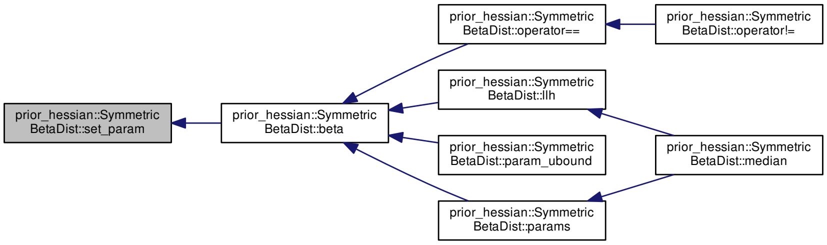
References set_beta().

Referenced by beta().

Here is the call graph for this function:



Here is the caller graph for this function:



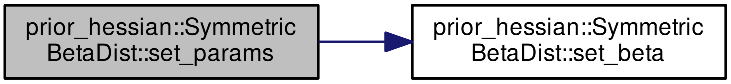
7.62.4.30 void prior_hessian::SymmetricBetaDist::set_params (double *beta*) [inline]

Definition at line 53 of file SymmetricBetaDist.h.

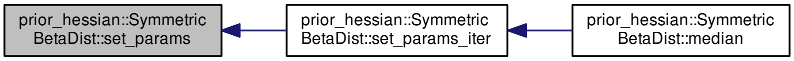
References set_beta().

Referenced by set_params_iter().

Here is the call graph for this function:



Here is the caller graph for this function:

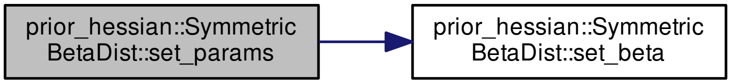

prior_hessian::Symmetric BetaDist::set_params
prior_hessian::Symmetric BetaDist::set_params_iter
prior_hessian::Symmetric BetaDist::median

7.62.4.31 template< class Vec > void prior_hessian::SymmetricBetaDist::set_params (const Vec & *p*) [inline]

Definition at line 56 of file SymmetricBetaDist.h.

References set_beta().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::set_params
prior_hessian::Symmetric BetaDist::set_beta

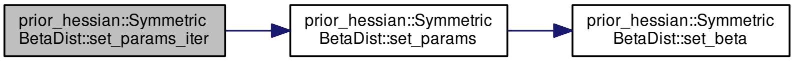
7.62.4.32 template< class IterT > void prior_hessian::SymmetricBetaDist::set_params_iter (IterT & *params*)

Definition at line 173 of file SymmetricBetaDist.h.

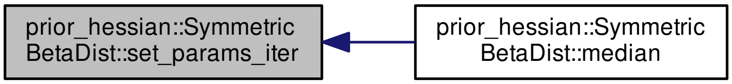
References set_params().

Referenced by median().

Here is the call graph for this function:


prior_hessian::Symmetric BetaDist::set_params_iter
prior_hessian::Symmetric BetaDist::set_params
prior_hessian::Symmetric BetaDist::set_beta

Here is the caller graph for this function:

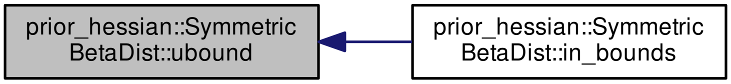

prior_hessian::Symmetric BetaDist::set_params_iter
prior_hessian::Symmetric BetaDist::median

7.62.4.33 static constexpr double prior_hessian::SymmetricBetaDist::ubound ( ) [inline], [static]

Definition at line 31 of file SymmetricBetaDist.h.

Referenced by in_bounds().

Here is the caller graph for this function:


prior_hessian::Symmetric BetaDist::ubound
prior_hessian::Symmetric BetaDist::in_bounds

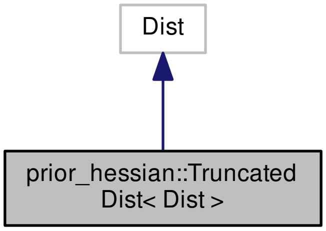
The documentation for this class was generated from the following files:

- SymmetricBetaDist.h
- SymmetricBetaDist.cpp

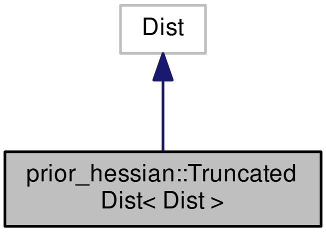
7.63 prior_hessian::TruncatedDist< Dist > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedDist.h>
```

Inheritance diagram for prior_hessian::TruncatedDist< Dist >:



Collaboration diagram for prior_hessian::TruncatedDist< Dist >:



Public Member Functions

- TruncatedDist ()
- TruncatedDist (double lbound, double ubound)
- template<typename = meta::EnableIfNotIsSelfT<Dist,TruncatedDist>>
  TruncatedDist (const Dist &dist)
- template<typename = meta::EnableIfNotIsSelfT<Dist,TruncatedDist>>
  TruncatedDist (Dist &&dist)
- TruncatedDist (const Dist &dist, double lbound, double ubound)
- TruncatedDist (Dist &&dist, double lbound, double ubound)
- double lbound () const
- double ubound () const
- bool truncated () const
- bool operator== (const TruncatedDist< Dist > &o) const
- bool operator!= (const TruncatedDist< Dist > &o) const
- void set_bounds (double lbound, double ubound)

- void set_lbound (double lbound)
- void set_ubound (double ubound)
- double mean () const
- double median () const
- double cdf (double x) const
- double pdf (double x) const
- double icdf (double u) const
- double llh (double x) const
- template<class RngT >
  double sample (RngT &rng) const

Static Public Member Functions

- static constexpr IdxT num_params ()
- static double global_lbound ()
- static double global_ubound ()

Static Public Attributes

- static constexpr const double min_bounds_pdf_integral = 1.0e-8

Protected Attributes

- double _truncated_lbound
- double _truncated_ubound
- bool _truncated = false
- double lbound_cdf
- double bounds_pdf_integral
- double llh_truncation_const

7.63.1 Detailed Description

template<class Dist>
class prior_hessian::TruncatedDist< Dist >

Definition at line 22 of file TruncatedDist.h.

7.63.2 Constructor & Destructor Documentation

7.63.2.1 template<class Dist> prior_hessian::TruncatedDist< Dist >::TruncatedDist ( ) [inline]

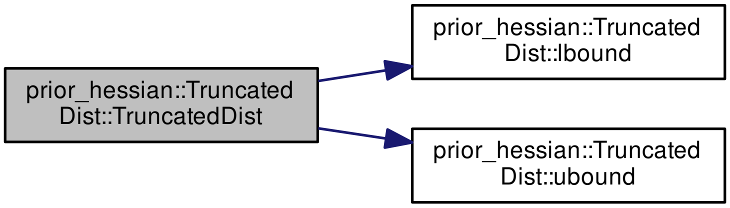
Definition at line 30 of file TruncatedDist.h.

7.63.2.2 template<class Dist> prior_hessian::TruncatedDist< Dist >::TruncatedDist (double *lbound,* double *ubound*) [inline]

Definition at line 31 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::lbound(), and prior_hessian::TruncatedDist< Dist >::ubound().

Here is the call graph for this function:


prior_hessian::Truncated Dist::TruncatedDist
prior_hessian::Truncated Dist::lbound
prior_hessian::Truncated Dist::ubound

7.63.2.3 template<class Dist> template<typename = meta::EnableIfNotIsSelfT<Dist,TruncatedDist>> prior_hessian::TruncatedDist< Dist >::TruncatedDist (const Dist & *dist*) [inline]

Definition at line 34 of file TruncatedDist.h.

7.63.2.4 template<class Dist> template<typename = meta::EnableIfNotIsSelfT<Dist,TruncatedDist>> prior_hessian::TruncatedDist< Dist >::TruncatedDist (Dist && *dist*) [inline]

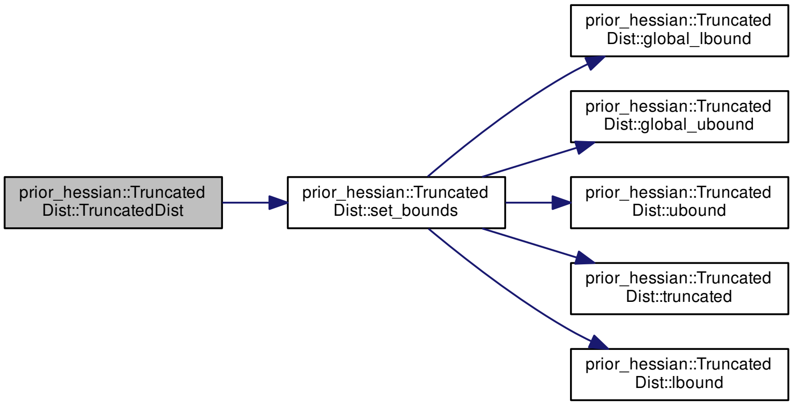
Definition at line 37 of file TruncatedDist.h.

7.63.2.5 template<class Dist> prior_hessian::TruncatedDist< Dist >::TruncatedDist (const Dist & *dist,* double *lbound,* double *ubound*) [inline]

Definition at line 39 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::set_bounds().

Here is the call graph for this function:

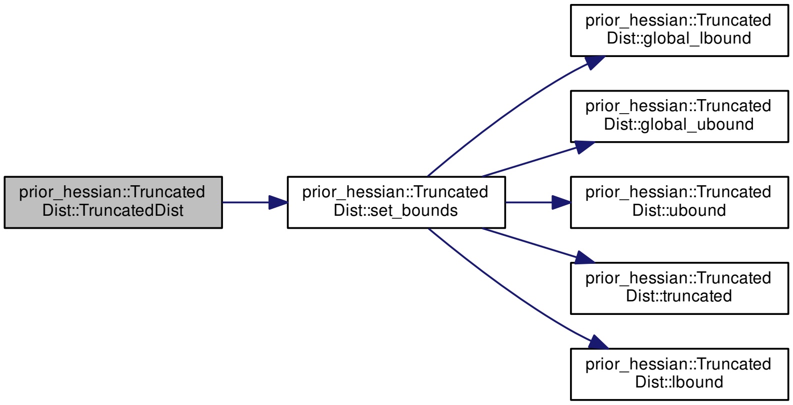

prior_hessian::Truncated Dist::TruncatedDist
prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::global_lbound
prior_hessian::Truncated Dist::global_ubound
prior_hessian::Truncated Dist::ubound
prior_hessian::Truncated Dist::truncated
prior_hessian::Truncated Dist::lbound

7.63.2.6 template<class Dist> prior_hessian::TruncatedDist< Dist >::TruncatedDist (Dist && *dist,* double *lbound,* double *ubound*) [inline]

Definition at line 43 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::set_bounds().

Here is the call graph for this function:


prior_hessian::Truncated Dist::TruncatedDist
prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::global_lbound
prior_hessian::Truncated Dist::global_ubound
prior_hessian::Truncated Dist::ubound
prior_hessian::Truncated Dist::truncated
prior_hessian::Truncated Dist::lbound

7.63.3 Member Function Documentation

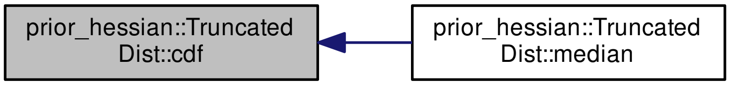
7.63.3.1 template< class Dist > double prior_hessian::TruncatedDist< Dist >::cdf (double *x*) const

Definition at line 135 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::bounds_pdf_integral, and prior_hessian::TruncatedDist< Dist >↩ ::lbound_cdf.

Referenced by prior_hessian::TruncatedDist< Dist >::median().

Here is the caller graph for this function:



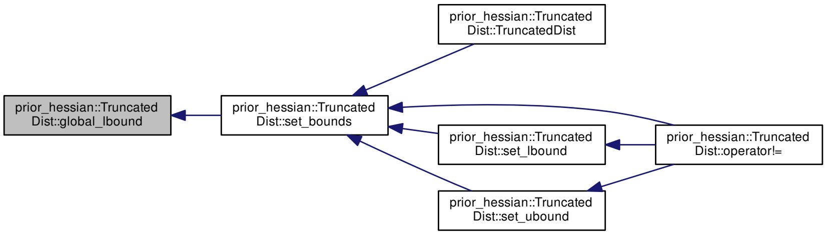
7.63.3.2 template<class Dist> static double prior_hessian::TruncatedDist< Dist >::global_lbound ( ) [inline], [static]

minimum allowable delta in cdf for a valid truncation

Definition at line 27 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::set_bounds().

Here is the caller graph for this function:

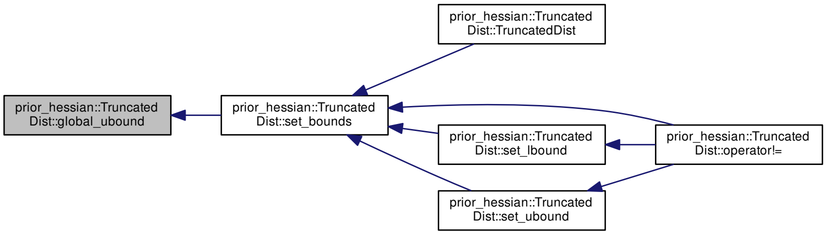


7.63.3.3 template<class Dist> static double prior_hessian::TruncatedDist< Dist >::global_ubound ( ) [inline], [static]

Definition at line 28 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::set_bounds().

Here is the caller graph for this function:


prior_hessian::Truncated Dist::global_ubound
prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::TruncatedDist
prior_hessian::Truncated Dist::set_lbound
prior_hessian::Truncated Dist::operator!=
prior_hessian::Truncated Dist::set_ubound

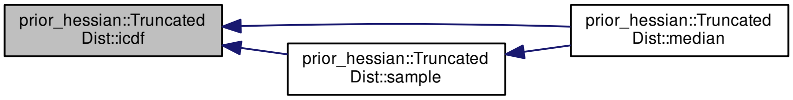
7.63.3.4 template<class Dist > double prior_hessian::TruncatedDist< Dist >::icdf (double *u*) const

Definition at line 141 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::bounds_pdf_integral, and prior_hessian::TruncatedDist< Dist >::lbound_cdf.

Referenced by prior_hessian::TruncatedDist< Dist >::median(), and prior_hessian::TruncatedDist< Dist >::sample().

Here is the caller graph for this function:


prior_hessian::Truncated Dist::icdf
prior_hessian::Truncated Dist::median
prior_hessian::Truncated Dist::sample

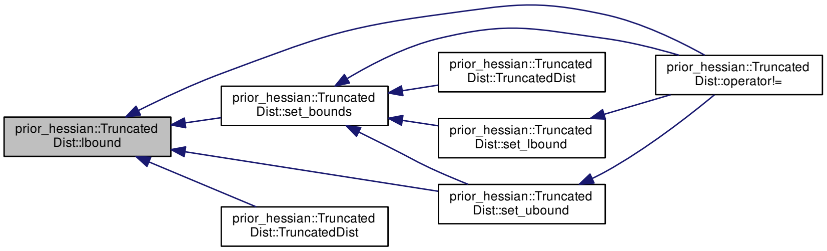
7.63.3.5 template<class Dist> double prior_hessian::TruncatedDist< Dist >::lbound ( ) const [inline]

Definition at line 47 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::_truncated_lbound.

Referenced by prior_hessian::TruncatedDist< Dist >::operator!=(), prior_hessian::TruncatedDist< Dist >::set_bounds(), prior_hessian::TruncatedDist< Dist >::set_ubound(), and prior_hessian::TruncatedDist< Dist >::TruncatedDist().

Here is the caller graph for this function:


prior_hessian::Truncated Dist::lbound
prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::TruncatedDist
prior_hessian::Truncated Dist::operator!=
prior_hessian::Truncated Dist::set_lbound
prior_hessian::Truncated Dist::set_ubound
prior_hessian::Truncated Dist::TruncatedDist

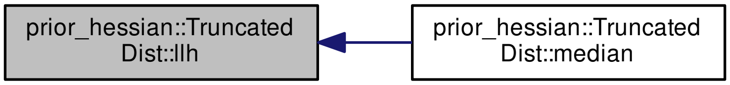
7.63.3.6 template< class Dist > double prior_hessian::TruncatedDist< Dist >::llh (double *x*) const

Definition at line 153 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::llh_truncation_const.

Referenced by prior_hessian::TruncatedDist< Dist >::median().

Here is the caller graph for this function:


prior_hessian::Truncated Dist::llh
prior_hessian::Truncated Dist::median

7.63.3.7 template<class Dist> double prior_hessian::TruncatedDist< Dist >::mean ( ) const [inline]

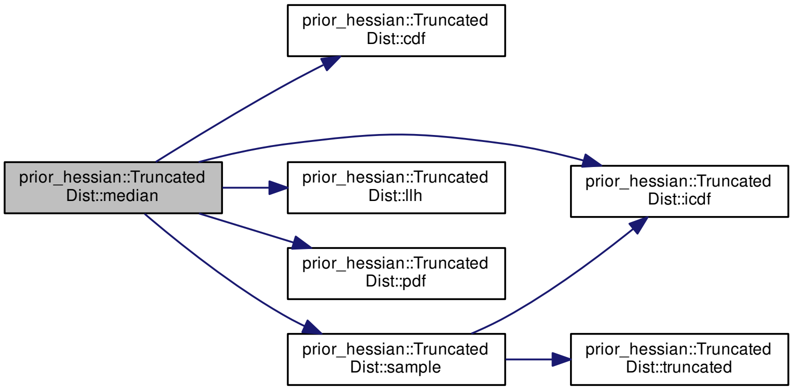
Definition at line 62 of file TruncatedDist.h.

7.63.3.8 template<class Dist> double prior_hessian::TruncatedDist< Dist >::median ( ) const [inline]

Definition at line 63 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::bounds_pdf_integral, prior_hessian::TruncatedDist< Dist >::cdf(), prior_hessian::TruncatedDist< Dist >::icdf(), prior_hessian::TruncatedDist< Dist >::lbound_cdf, prior_hessian::↩ TruncatedDist< Dist >::llh(), prior_hessian::TruncatedDist< Dist >::pdf(), and prior_hessian::TruncatedDist< Dist >::sample().

Here is the call graph for this function:


prior_hessian::Truncated Dist::median
prior_hessian::Truncated Dist::cdf
prior_hessian::Truncated Dist::llh
prior_hessian::Truncated Dist::pdf
prior_hessian::Truncated Dist::sample
prior_hessian::Truncated Dist::icdf
prior_hessian::Truncated Dist::truncated

7.63.3.9 template< class Dist > static constexpr IdxT prior_hessian::TruncatedDist< Dist >::num_params ( ) [inline], [static]

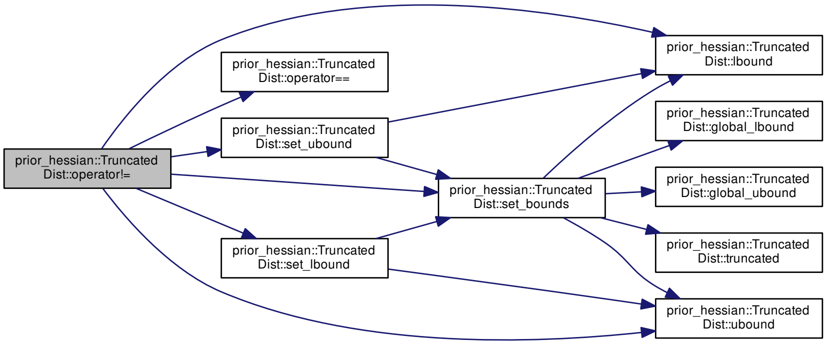
Definition at line 25 of file TruncatedDist.h.

7.63.3.10 template< class Dist > bool prior_hessian::TruncatedDist< Dist >::operator!= (const TruncatedDist< Dist > & *o*) const [inline]

Definition at line 56 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::lbound(), prior_hessian::TruncatedDist< Dist >::operator==(), prior_hessian::TruncatedDist< Dist >::set_bounds(), prior_hessian::TruncatedDist< Dist >::set_lbound(), prior_hessian::TruncatedDist< Dist >::set_ubound(), and prior_hessian::TruncatedDist< Dist >::ubound().

Here is the call graph for this function:


prior_hessian::Truncated Dist::operator!=
prior_hessian::Truncated Dist::operator==
prior_hessian::Truncated Dist::set_ubound
prior_hessian::Truncated Dist::set_lbound
prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::lbound
prior_hessian::Truncated Dist::global_lbound
prior_hessian::Truncated Dist::global_ubound
prior_hessian::Truncated Dist::truncated
prior_hessian::Truncated Dist::ubound

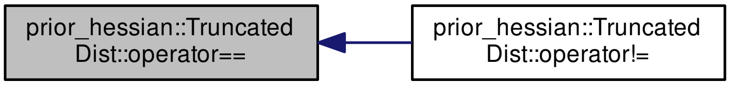
7.63.3.11 template< class Dist> bool prior_hessian::TruncatedDist< Dist >::operator== (const TruncatedDist< Dist > & *o*) const [inline]

Definition at line 50 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::_truncated_lbound, and prior_hessian::TruncatedDist< Dist >::_↩ truncated_ubound.

Referenced by prior_hessian::TruncatedDist< Dist >::operator!=().

Here is the caller graph for this function:


prior_hessian::Truncated Dist::operator==
prior_hessian::Truncated Dist::operator!=

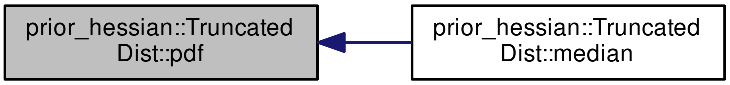
7.63.3.12 template< class Dist > double prior_hessian::TruncatedDist< Dist >::pdf (double *x*) const

Definition at line 147 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::bounds_pdf_integral.

Referenced by prior_hessian::TruncatedDist< Dist >::median().

Here is the caller graph for this function:


prior_hessian::Truncated Dist::pdf
prior_hessian::Truncated Dist::median

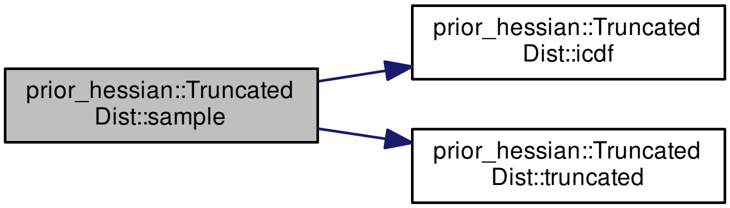
7.63.3.13 template<class Dist > template<class RngT > double prior_hessian::TruncatedDist< Dist >::sample (RngT & *rng*) const

Definition at line 166 of file TruncatedDist.h.

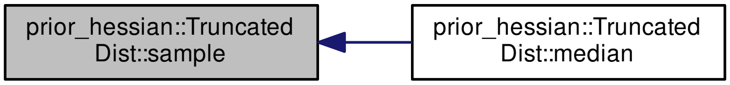
References prior_hessian::TruncatedDist< Dist >::icdf(), and prior_hessian::TruncatedDist< Dist >::truncated().

Referenced by prior_hessian::TruncatedDist< Dist >::median().

Here is the call graph for this function:



Here is the caller graph for this function:



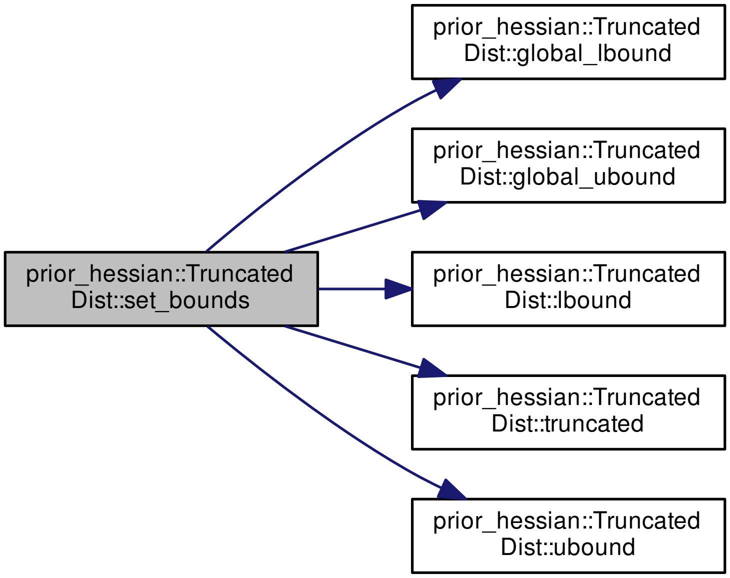
7.63.3.14 template<class Dist > void prior_hessian::TruncatedDist< Dist >::set_bounds (double *lbound,* double *ubound*)

Definition at line 82 of file TruncatedDist.h.

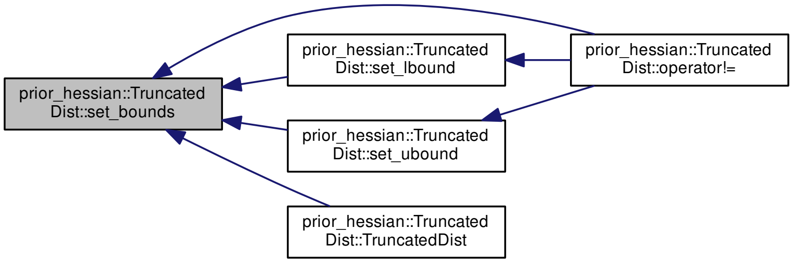
References prior_hessian::TruncatedDist< Dist >::_truncated, prior_hessian::TruncatedDist< Dist >::_truncated_lbound, prior_hessian::TruncatedDist< Dist >::_truncated_ubound, prior_hessian::TruncatedDist< Dist >::bounds_pdf_integral, prior_hessian::TruncatedDist< Dist >::global_lbound(), prior_hessian::TruncatedDist< Dist >::global_ubound(), prior_hessian::TruncatedDist< Dist >::lbound(), prior_hessian::TruncatedDist< Dist >::lbound_cdf, prior_hessian::TruncatedDist< Dist >::llh_truncation_const, prior_hessian::TruncatedDist< Dist >::min_bounds_pdf_integral, prior_hessian::TruncatedDist< Dist >::truncated(), and prior_hessian::TruncatedDist< Dist >::ubound().

Referenced by prior_hessian::TruncatedDist< Dist >::operator!=(), prior_hessian::TruncatedDist< Dist >::set_lbound(), prior_hessian::TruncatedDist< Dist >::set_ubound(), and prior_hessian::TruncatedDist< Dist >::TruncatedDist().

Here is the call graph for this function:


prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::global_lbound
prior_hessian::Truncated Dist::global_ubound
prior_hessian::Truncated Dist::lbound
prior_hessian::Truncated Dist::truncated
prior_hessian::Truncated Dist::ubound

Here is the caller graph for this function:


prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::set_lbound
prior_hessian::Truncated Dist::set_ubound
prior_hessian::Truncated Dist::TruncatedDist
prior_hessian::Truncated Dist::operator!=

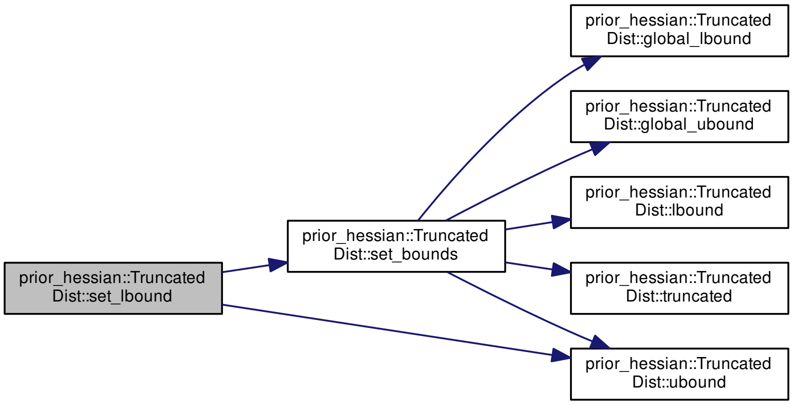
7.63.3.15 template< class Dist > void **prior_hessian::TruncatedDist**< Dist >::set_lbound (double *lbound*)

Definition at line 123 of file TruncatedDist.h.

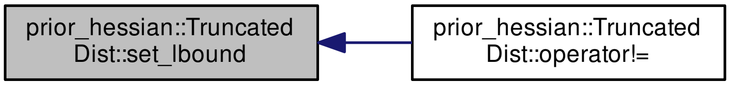
References prior_hessian::TruncatedDist< Dist >::set_bounds(), and prior_hessian::TruncatedDist< Dist >::ubound().

Referenced by prior_hessian::TruncatedDist< Dist >::operator!=().

Here is the call graph for this function:


prior_hessian::Truncated Dist::set_lbound
prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::global_lbound
prior_hessian::Truncated Dist::global_ubound
prior_hessian::Truncated Dist::lbound
prior_hessian::Truncated Dist::truncated
prior_hessian::Truncated Dist::ubound

Here is the caller graph for this function:


prior_hessian::Truncated Dist::set_lbound
prior_hessian::Truncated Dist::operator!=

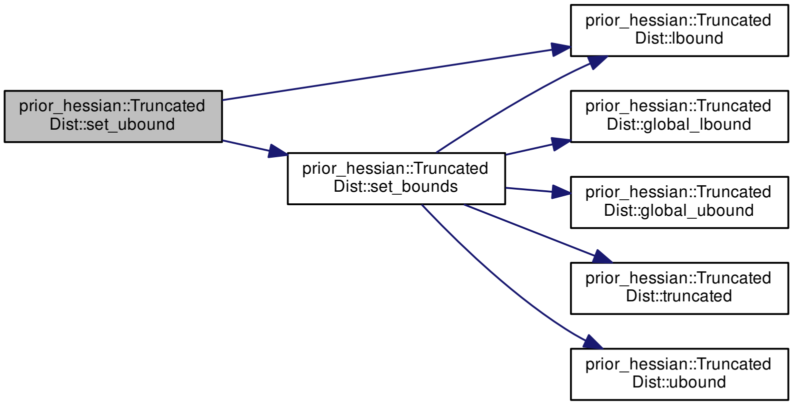
7.63.3.16 template< class Dist > void prior_hessian::TruncatedDist< Dist >::set_ubound (double *ubound*)

Definition at line 129 of file TruncatedDist.h.

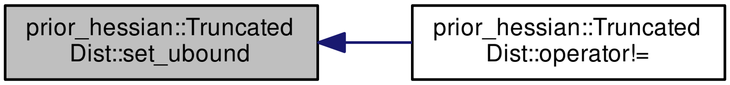
References prior_hessian::TruncatedDist< Dist >::lbound(), and prior_hessian::TruncatedDist< Dist >::set_bounds().

Referenced by prior_hessian::TruncatedDist< Dist >::operator!=().

Here is the call graph for this function:



Here is the caller graph for this function:



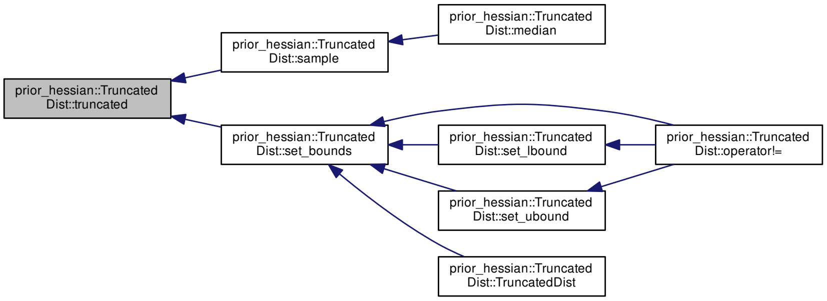
7.63.3.17 template< class Dist > bool prior_hessian::TruncatedDist< Dist >::truncated ( ) const [inline]

Definition at line 49 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::_truncated.

Referenced by prior_hessian::TruncatedDist< Dist >::sample(), and prior_hessian::TruncatedDist< Dist >::set_bounds().

Here is the caller graph for this function:


prior_hessian::Truncated Dist::truncated
prior_hessian::Truncated Dist::sample
prior_hessian::Truncated Dist::median
prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::set_lbound
prior_hessian::Truncated Dist::operator!=
prior_hessian::Truncated Dist::set_ubound
prior_hessian::Truncated Dist::TruncatedDist

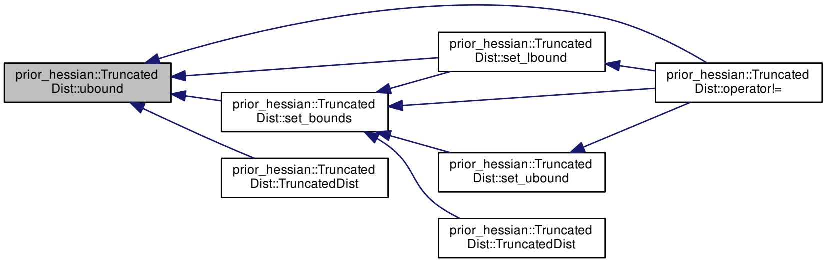
7.63.3.18 template<class Dist> double **prior_hessian::TruncatedDist**< Dist >::ubound ( ) const [inline]

Definition at line 48 of file TruncatedDist.h.

References prior_hessian::TruncatedDist< Dist >::_truncated_ubound.

Referenced by prior_hessian::TruncatedDist< Dist >::operator!=(), prior_hessian::TruncatedDist< Dist >::set_bounds(), prior_hessian::TruncatedDist< Dist >::set_lbound(), and prior_hessian::TruncatedDist< Dist >::TruncatedDist().

Here is the caller graph for this function:


prior_hessian::Truncated Dist::ubound
prior_hessian::Truncated Dist::set_lbound
prior_hessian::Truncated Dist::operator!=
prior_hessian::Truncated Dist::set_bounds
prior_hessian::Truncated Dist::TruncatedDist
prior_hessian::Truncated Dist::set_ubound
prior_hessian::Truncated Dist::TruncatedDist

7.63.4 Member Data Documentation

7.63.4.1 template<class Dist> bool **prior_hessian::TruncatedDist**< Dist >::_truncated = false [protected]

Definition at line 74 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::set_bounds(), and prior_hessian::TruncatedDist< Dist >::truncated().

7.63.4.2 template<class Dist> double prior_hessian::TruncatedDist< Dist >::_truncated_lbound [protected]

Definition at line 72 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::lbound(), prior_hessian::TruncatedDist< Dist >::operator==(), and prior_hessian::TruncatedDist< Dist >::set_bounds().

7.63.4.3 template<class Dist> double prior_hessian::TruncatedDist< Dist >::_truncated_ubound [protected]

Definition at line 73 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::operator==(), prior_hessian::TruncatedDist< Dist >::set_↩ bounds(), and prior_hessian::TruncatedDist< Dist >::ubound().

7.63.4.4 template<class Dist> double prior_hessian::TruncatedDist< Dist >::bounds_pdf_integral [protected]

Definition at line 77 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::cdf(), prior_hessian::TruncatedDist< Dist >::icdf(), prior↩ _hessian::TruncatedDist< Dist >::median(), prior_hessian::TruncatedDist< Dist >::pdf(), and prior_hessian::↩ TruncatedDist< Dist >::set_bounds().

7.63.4.5 template<class Dist> double prior_hessian::TruncatedDist< Dist >::lbound_cdf [protected]

Definition at line 76 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::cdf(), prior_hessian::TruncatedDist< Dist >::icdf(), prior_↩ hessian::TruncatedDist< Dist >::median(), and prior_hessian::TruncatedDist< Dist >::set_bounds().

7.63.4.6 template<class Dist> double prior_hessian::TruncatedDist< Dist >::llh_truncation_const [protected]

Definition at line 78 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::llh(), and prior_hessian::TruncatedDist< Dist >::set_bounds().

7.63.4.7 template<class Dist> constexpr const double prior_hessian::TruncatedDist< Dist >::min_bounds_pdf_integral = 1.0e-8 [static]

Definition at line 26 of file TruncatedDist.h.

Referenced by prior_hessian::TruncatedDist< Dist >::set_bounds().

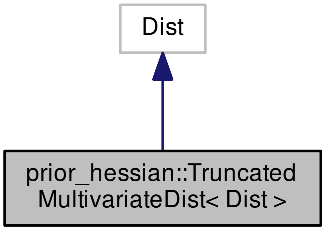
The documentation for this class was generated from the following file:

- TruncatedDist.h

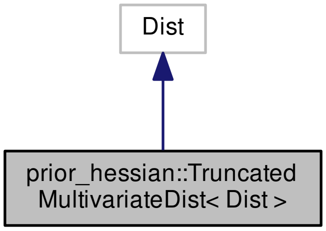
7.64 prior_hessian::TruncatedMultivariateDist< Dist > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
TruncatedMultivariateDist.h>
```

Inheritance diagram for prior_hessian::TruncatedMultivariateDist< Dist >:



Collaboration diagram for prior_hessian::TruncatedMultivariateDist< Dist >:



Public Member Functions

- TruncatedMultivariateDist ()
- template<class Vec >
  TruncatedMultivariateDist (Vec &&lbound, Vec &&ubound)
- template<typename = meta::EnableIfNotIsSelfT<Dist,TruncatedMultivariateDist>>
  TruncatedMultivariateDist (const Dist &dist)
- template<typename = meta::EnableIfNotIsSelfT<Dist,TruncatedMultivariateDist>>
  TruncatedMultivariateDist (Dist &&dist)
- template<class Vec >
  TruncatedMultivariateDist (const Dist &dist, Vec &&lbound, Vec &&ubound)

- template<class Vec >
  TruncatedMultivariateDist (Dist &&dist, Vec &&lbound, Vec &&ubound)
- const NdimVecT & lbound () const
- const NdimVecT & ubound () const
- template<class Vec >
  bool in_bounds (const Vec &u) const
- bool truncated () const
- bool operator== (const TruncatedMultivariateDist< Dist > &o) const
- bool operator!= (const TruncatedMultivariateDist< Dist > &o) const
- template<class Vec , class Vec2 >
  void set_bounds (const Vec &lbound, const Vec2 &ubound)
- template<class Vec >
  void set_lbound (const Vec &lbound)
- template<class Vec >
  void set_ubound (const Vec &ubound)
- double mean () const
- template<class Vec >
  double cdf (const Vec &x) const
- template<class Vec >
  double pdf (const Vec &x) const
- template<class Vec >
  double llh (const Vec &x) const
- template<class RngT >
  NdimVecT sample (RngT &rng) const

Static Public Member Functions

- static const NdimVecT & global_lbound ()
- static const NdimVecT & global_ubound ()

Static Public Attributes

- static constexpr const double min_bounds_pdf_integral = 1.0e-8

Protected Member Functions

- double compute_truncated_pdf_integral (const NdimVecT &lbound, const NdimVecT &ubound, double lbound←↩_cdf) const

Protected Attributes

- NdimVecT _truncated_lbound
- NdimVecT _truncated_ubound
- bool _truncated = false
- double lbound_cdf
- double bounds_pdf_integral
- double llh_truncation_const

7.64.1 Detailed Description

template<class Dist>
class prior_hessian::TruncatedMultivariateDist< Dist >

Definition at line 60 of file TruncatedMultivariateDist.h.

7.64.2 Constructor & Destructor Documentation

7.64.2.1 template<class Dist> prior_hessian::TruncatedMultivariateDist< Dist >::TruncatedMultivariateDist ( ) [inline]

minimum allowabale integral of pdf for a valid truncation

Definition at line 66 of file TruncatedMultivariateDist.h.

7.64.2.2 template<class Dist> template<class Vec > prior_hessian::TruncatedMultivariateDist< Dist >::TruncatedMultivariateDist (Vec && *lbound,* Vec && *ubound*) [inline]

Definition at line 69 of file TruncatedMultivariateDist.h.

7.64.2.3 template<class Dist> template<typename = meta::EnableIfNotIsSelfT<Dist,TruncatedMultivariateDist>> prior_hessian::TruncatedMultivariateDist< Dist >::TruncatedMultivariateDist (const Dist & *dist*) [inline]

Definition at line 73 of file TruncatedMultivariateDist.h.

7.64.2.4 template<class Dist> template<typename = meta::EnableIfNotIsSelfT<Dist,TruncatedMultivariateDist>> prior_hessian::TruncatedMultivariateDist< Dist >::TruncatedMultivariateDist (Dist && *dist*) [inline]

Definition at line 76 of file TruncatedMultivariateDist.h.

7.64.2.5 template<class Dist> template<class Vec > prior_hessian::TruncatedMultivariateDist< Dist >::TruncatedMultivariateDist (const Dist & *dist,* Vec && *lbound,* Vec && *ubound*) [inline]

Definition at line 79 of file TruncatedMultivariateDist.h.

7.64.2.6 template<class Dist> template<class Vec > prior_hessian::TruncatedMultivariateDist< Dist >::TruncatedMultivariateDist (Dist && *dist,* Vec && *lbound,* Vec && *ubound*) [inline]

Definition at line 86 of file TruncatedMultivariateDist.h.

7.64.3 Member Function Documentation

7.64.3.1 template<class Dist > template<class Vec > double prior_hessian::TruncatedMultivariateDist< Dist >::cdf (const Vec & *x*) const

Definition at line 233 of file TruncatedMultivariateDist.h.

7.64.3.2 template< class Dist > double prior_hessian::TruncatedMultivariateDist< Dist >::compute_truncated_pdf_integral (const NdimVecT & *lbound,* const NdimVecT & *ubound,* double *lbound_cdf*) const [protected]

Definition at line 147 of file TruncatedMultivariateDist.h.

7.64.3.3 template< class Dist> static const NdimVecT& prior_hessian::TruncatedMultivariateDist< Dist >::global_lbound ( ) [inline], [static]

Definition at line 96 of file TruncatedMultivariateDist.h.

7.64.3.4 template< class Dist> static const NdimVecT& prior_hessian::TruncatedMultivariateDist< Dist >::global_ubound ( ) [inline], [static]

Definition at line 97 of file TruncatedMultivariateDist.h.

7.64.3.5 template< class Dist> template< class Vec > bool prior_hessian::TruncatedMultivariateDist< Dist >::in_bounds (const Vec & *u*) const [inline]

Definition at line 95 of file TruncatedMultivariateDist.h.

7.64.3.6 template< class Dist> const NdimVecT& prior_hessian::TruncatedMultivariateDist< Dist >::lbound ( ) const [inline]

Definition at line 92 of file TruncatedMultivariateDist.h.

7.64.3.7 template< class Dist > template< class Vec > double prior_hessian::TruncatedMultivariateDist< Dist >::llh (const Vec & *x*) const

Definition at line 248 of file TruncatedMultivariateDist.h.

7.64.3.8 template< class Dist> double prior_hessian::TruncatedMultivariateDist< Dist >::mean ( ) const [inline]

Definition at line 114 of file TruncatedMultivariateDist.h.

References prior_hessian::mcmc::MCMCData< Ndim >::sample.

7.64.3.9 template< class Dist> bool prior_hessian::TruncatedMultivariateDist< Dist >::operator!= (const TruncatedMultivariateDist< Dist > & *o*) const [inline]

Definition at line 105 of file TruncatedMultivariateDist.h.

7.64.3.10 template< class Dist> bool prior_hessian::TruncatedMultivariateDist< Dist >::operator== (const TruncatedMultivariateDist< Dist > & *o*) const [inline]

Definition at line 99 of file TruncatedMultivariateDist.h.

References prior_hessian::TruncatedMultivariateDist< Dist >::_truncated_lbound, and prior_hessian::Truncated↩ MultivariateDist< Dist >::_truncated_ubound.

7.64.3.11 template<class Dist > template<class Vec > double prior_hessian::TruncatedMultivariateDist< Dist >::pdf (const Vec & *x*) const

Definition at line 241 of file TruncatedMultivariateDist.h.

7.64.3.12 template<class Dist > template<class RngT > TruncatedMultivariateDist< Dist >::NdimVecT prior_hessian::TruncatedMultivariateDist< Dist >::sample (RngT & *rng*) const

Definition at line 256 of file TruncatedMultivariateDist.h.

References prior_hessian::mcmc::MCMCData< Ndim >::rllh, and prior_hessian::mcmc::MCMCData< Ndim >↩ ::sample.

7.64.3.13 template<class Dist > template<class Vec , class Vec2 > void prior_hessian::TruncatedMultivariateDist< Dist >::set_bounds (const Vec & *lbound,* const Vec2 & *ubound*)

Definition at line 179 of file TruncatedMultivariateDist.h.

7.64.3.14 template<class Dist > template<class Vec > void prior_hessian::TruncatedMultivariateDist< Dist >::set_lbound (const Vec & *lbound*)

Definition at line 219 of file TruncatedMultivariateDist.h.

7.64.3.15 template<class Dist > template<class Vec > void prior_hessian::TruncatedMultivariateDist< Dist >::set_ubound (const Vec & *ubound*)

Definition at line 226 of file TruncatedMultivariateDist.h.

7.64.3.16 template<class Dist> bool prior_hessian::TruncatedMultivariateDist< Dist >::truncated ( ) const [inline]

Definition at line 98 of file TruncatedMultivariateDist.h.

7.64.3.17 template<class Dist> const NdimVecT& prior_hessian::TruncatedMultivariateDist< Dist >::ubound ( ) const [inline]

Definition at line 93 of file TruncatedMultivariateDist.h.

7.64.4 Member Data Documentation

7.64.4.1 template<class Dist> bool prior_hessian::TruncatedMultivariateDist< Dist >::_truncated = false [protected]

Definition at line 128 of file TruncatedMultivariateDist.h.

7.64.4.2 template<class Dist> NdimVecT **prior_hessian::TruncatedMultivariateDist**< Dist >::_truncated_lbound [protected]

Definition at line 126 of file TruncatedMultivariateDist.h.

Referenced by prior_hessian::TruncatedMultivariateDist< Dist >::operator==().

7.64.4.3 template<class Dist> NdimVecT **prior_hessian::TruncatedMultivariateDist**< Dist >::_truncated_ubound [protected]

Definition at line 127 of file TruncatedMultivariateDist.h.

Referenced by prior_hessian::TruncatedMultivariateDist< Dist >::operator==().

7.64.4.4 template<class Dist> double **prior_hessian::TruncatedMultivariateDist**< Dist >::bounds_pdf_integral [protected]

Definition at line 132 of file TruncatedMultivariateDist.h.

7.64.4.5 template<class Dist> double **prior_hessian::TruncatedMultivariateDist**< Dist >::lbound_cdf [protected]

Definition at line 131 of file TruncatedMultivariateDist.h.

7.64.4.6 template<class Dist> double **prior_hessian::TruncatedMultivariateDist**< Dist >::llh_truncation_const [protected]

Definition at line 133 of file TruncatedMultivariateDist.h.

7.64.4.7 template<class Dist> constexpr const double **prior_hessian::TruncatedMultivariateDist**< Dist >::min_bounds_pdf_integral = 1.0e-8 [static]

Definition at line 64 of file TruncatedMultivariateDist.h.

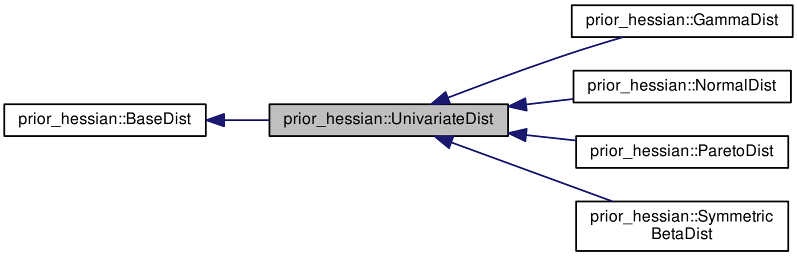
The documentation for this class was generated from the following file:

- TruncatedMultivariateDist.h

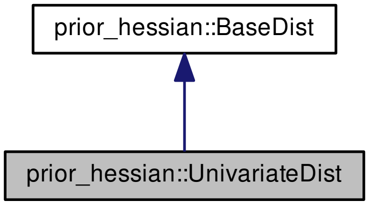
7.65 prior_hessian::UnivariateDist Class Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
UnivariateDist.h>
```

Inheritance diagram for prior_hessian::UnivariateDist:


prior_hessian::GammaDist
prior_hessian::NormalDist
prior_hessian::BaseDist
prior_hessian::UnivariateDist
prior_hessian::ParetoDist
prior_hessian::Symmetric BetaDist

Collaboration diagram for prior_hessian::UnivariateDist:



Public Member Functions

- UnivariateDist ()

Static Public Member Functions

- static constexpr IdxT num_dim ()

Static Protected Member Functions

- static void check_bounds (double lbound, double ubound)

7.65.1 Detailed Description

Definition at line 15 of file UnivariateDist.h.

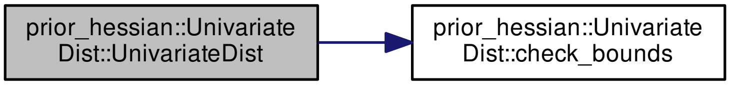
7.65.2 Constructor & Destructor Documentation

7.65.2.1 prior_hessian::UnivariateDist::UnivariateDist ( ) [inline]

Definition at line 19 of file UnivariateDist.h.

References check_bounds().

Here is the call graph for this function:



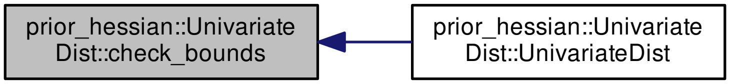
7.65.3 Member Function Documentation

7.65.3.1 void prior_hessian::UnivariateDist::check_bounds (double *lbound,* double *ubound*) [static], [protected]

Definition at line 17 of file UnivariateDist.cpp.

Referenced by UnivariateDist().

Here is the caller graph for this function:



7.65.3.2 static constexpr IdxT prior_hessian::UnivariateDist::num_dim ( ) [inline], [static]

Definition at line 17 of file UnivariateDist.h.

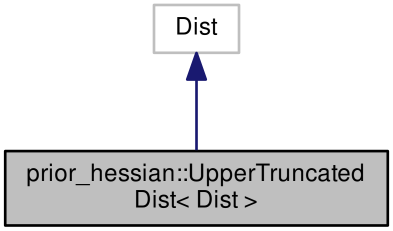
The documentation for this class was generated from the following files:

- UnivariateDist.h
- UnivariateDist.cpp

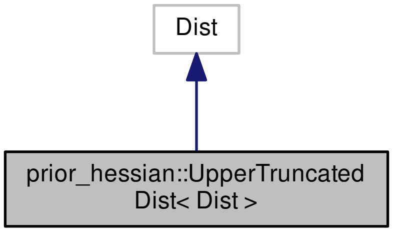
7.66 prior_hessian::UpperTruncatedDist< Dist > Class Template Reference

```
#include </home/travis/build/markjolah/PriorHessian/include/PriorHessian/↩
UpperTruncatedDist.h>
```

Inheritance diagram for prior_hessian::UpperTruncatedDist< Dist >:



Collaboration diagram for prior_hessian::UpperTruncatedDist< Dist >:



Public Member Functions

- UpperTruncatedDist ()
- UpperTruncatedDist (double ubound)
- template<typename = meta::EnableIfNotIsSelfT<Dist,UpperTruncatedDist>>
  UpperTruncatedDist (const Dist &dist)
- template<typename = meta::EnableIfNotIsSelfT<Dist,UpperTruncatedDist>>
  UpperTruncatedDist (Dist &&dist)
- UpperTruncatedDist (const Dist &dist, double ubound)
- UpperTruncatedDist (Dist &&dist, double ubound)
- double ubound () const
- bool truncated () const
- bool operator== (const UpperTruncatedDist< Dist > &o) const
- bool operator!= (const UpperTruncatedDist< Dist > &o) const
- void set_bounds (double lbound, double ubound)
- void set_lbound (double ubound)
- void set_ubound (double ubound)
- double mean () const
- double median () const
- double cdf (double x) const
- double pdf (double x) const
- double icdf (double u) const
- double llh (double x) const
- template<class RngT >
  double sample (RngT &rng) const

Static Public Member Functions

- static double global_ubound ()

7.66.1 Detailed Description

template<class Dist>
class prior_hessian::UpperTruncatedDist< Dist >

Definition at line 22 of file UpperTruncatedDist.h.

7.66.2 Constructor & Destructor Documentation

7.66.2.1 template<class Dist> prior_hessian::UpperTruncatedDist< Dist >::UpperTruncatedDist ( ) [inline]

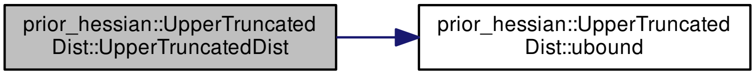
Definition at line 25 of file UpperTruncatedDist.h.

7.66.2.2 template<class Dist> prior_hessian::UpperTruncatedDist< Dist >::UpperTruncatedDist (double *ubound*) [inline], [explicit]

Definition at line 26 of file UpperTruncatedDist.h.

References prior_hessian::UpperTruncatedDist< Dist >::ubound().

Here is the call graph for this function:


prior_hessian::UpperTruncated Dist::UpperTruncatedDist
prior_hessian::UpperTruncated Dist::ubound

7.66.2.3 template<class Dist> template<typename = meta::EnableIfNotIsSelfT<Dist,UpperTruncatedDist>> prior_hessian::UpperTruncatedDist< Dist >::UpperTruncatedDist (const Dist & *dist*) [inline]

Definition at line 29 of file UpperTruncatedDist.h.

7.66.2.4 template<class Dist> template<typename = meta::EnableIfNotIsSelfT<Dist,UpperTruncatedDist>> prior_hessian::UpperTruncatedDist< Dist >::UpperTruncatedDist (Dist && *dist*) [inline]

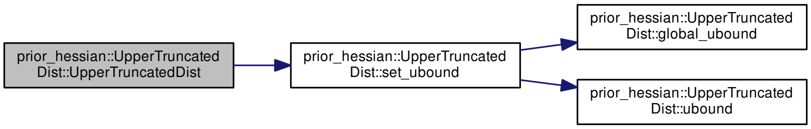
Definition at line 32 of file UpperTruncatedDist.h.

7.66.2.5 template<class Dist> prior_hessian::UpperTruncatedDist< Dist >::UpperTruncatedDist (const Dist & *dist,* double *ubound*) [inline]

Definition at line 34 of file UpperTruncatedDist.h.

References prior_hessian::UpperTruncatedDist< Dist >::set_ubound().

Here is the call graph for this function:

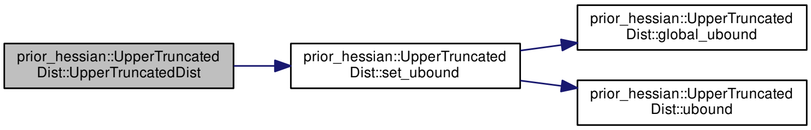

prior_hessian::UpperTruncated Dist::UpperTruncatedDist
prior_hessian::UpperTruncated Dist::set_ubound
prior_hessian::UpperTruncated Dist::global_ubound
prior_hessian::UpperTruncated Dist::ubound

7.66.2.6 template<class Dist> prior_hessian::UpperTruncatedDist< Dist >::UpperTruncatedDist (Dist && *dist*, double *ubound*) [inline]

Definition at line 35 of file UpperTruncatedDist.h.

References prior_hessian::UpperTruncatedDist< Dist >::set_ubound().

Here is the call graph for this function:


prior_hessian::UpperTruncated Dist::UpperTruncatedDist
prior_hessian::UpperTruncated Dist::set_ubound
prior_hessian::UpperTruncated Dist::global_ubound
prior_hessian::UpperTruncated Dist::ubound

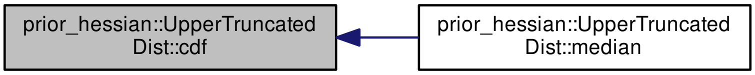
7.66.3 Member Function Documentation

7.66.3.1 template<class Dist > double prior_hessian::UpperTruncatedDist< Dist >::cdf (double *x*) const

Definition at line 141 of file UpperTruncatedDist.h.

Referenced by prior_hessian::UpperTruncatedDist< Dist >::median().

Here is the caller graph for this function:

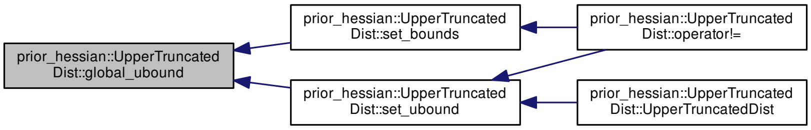

prior_hessian::UpperTruncated Dist::cdf
prior_hessian::UpperTruncated Dist::median

7.66.3.2 template<class Dist> static double prior_hessian::UpperTruncatedDist< Dist >::global_ubound ( ) [inline], [static]

Definition at line 38 of file UpperTruncatedDist.h.

Referenced by prior_hessian::UpperTruncatedDist< Dist >::set_bounds(), and prior_hessian::UpperTruncatedDist< Dist >::set_ubound().

Here is the caller graph for this function:

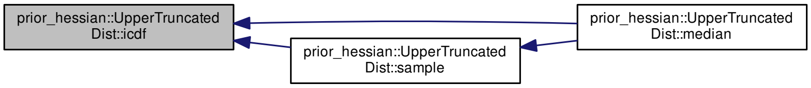

prior_hessian::UpperTruncated Dist::global_ubound
prior_hessian::UpperTruncated Dist::set_bounds
prior_hessian::UpperTruncated Dist::set_ubound
prior_hessian::UpperTruncated Dist::operator!=
prior_hessian::UpperTruncated Dist::UpperTruncatedDist

7.66.3.3 template<class Dist > double prior_hessian::UpperTruncatedDist< Dist >::icdf (double *u*) const

Definition at line 147 of file UpperTruncatedDist.h.

Referenced by prior_hessian::UpperTruncatedDist< Dist >::median(), and prior_hessian::UpperTruncatedDist< Dist >::sample().

Here is the caller graph for this function:

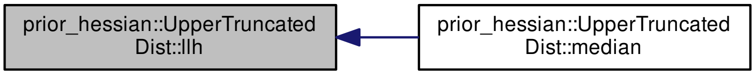

prior_hessian::UpperTruncated Dist::icdf
prior_hessian::UpperTruncated Dist::median
prior_hessian::UpperTruncated Dist::sample

7.66.3.4 template<class Dist > double prior_hessian::UpperTruncatedDist< Dist >::llh (double *x*) const

Definition at line 159 of file UpperTruncatedDist.h.

Referenced by prior_hessian::UpperTruncatedDist< Dist >::median().

Here is the caller graph for this function:


prior_hessian::UpperTruncated Dist::llh
prior_hessian::UpperTruncated Dist::median

7.66.3.5 template<class Dist> double prior_hessian::UpperTruncatedDist< Dist >::mean ( ) const [inline]

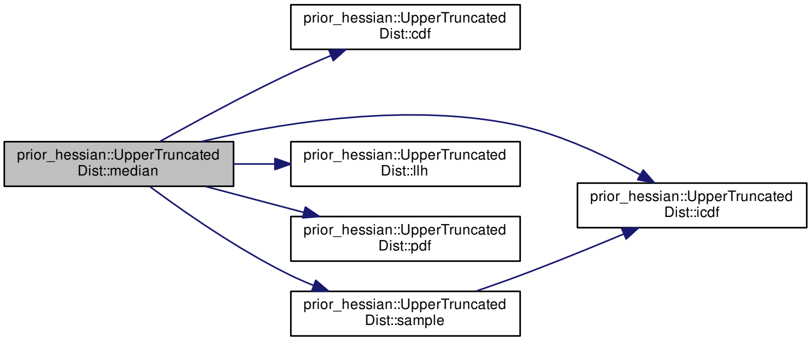
Definition at line 52 of file UpperTruncatedDist.h.

7.66.3.6 template<class Dist> double prior_hessian::UpperTruncatedDist< Dist >::median ( ) const [inline]

Definition at line 53 of file UpperTruncatedDist.h.

References prior_hessian::UpperTruncatedDist< Dist >::cdf(), prior_hessian::UpperTruncatedDist< Dist >::icdf(), prior_hessian::UpperTruncatedDist< Dist >::llh(), prior_hessian::UpperTruncatedDist< Dist >::pdf(), and prior_hessian::UpperTruncatedDist< Dist >::sample().

Here is the call graph for this function:

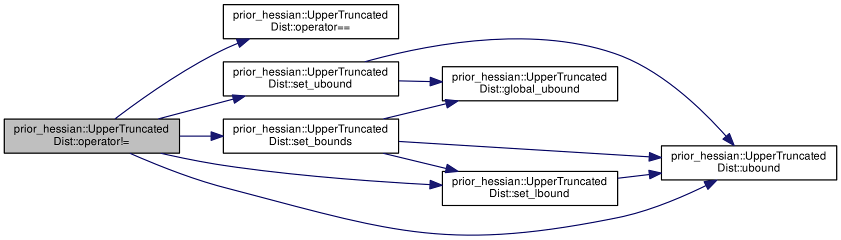

prior_hessian::UpperTruncatedDist::cdf
prior_hessian::UpperTruncatedDist::median
prior_hessian::UpperTruncatedDist::llh
prior_hessian::UpperTruncatedDist::icdf
prior_hessian::UpperTruncatedDist::pdf
prior_hessian::UpperTruncatedDist::sample

7.66.3.7 template< class Dist > bool prior_hessian::UpperTruncatedDist< Dist >::operator!= (const UpperTruncatedDist< Dist > & *o*) const [inline]

Definition at line 46 of file UpperTruncatedDist.h.

References prior_hessian::UpperTruncatedDist< Dist >::operator==(), prior_hessian::UpperTruncatedDist< Dist >::set_bounds(), prior_hessian::UpperTruncatedDist< Dist >::set_lbound(), prior_hessian::UpperTruncatedDist< Dist >::set_ubound(), and prior_hessian::UpperTruncatedDist< Dist >::ubound().

Here is the call graph for this function:

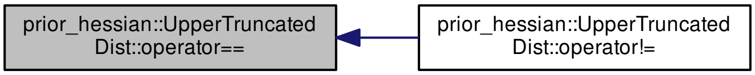

prior_hessian::UpperTruncatedDist::operator==
prior_hessian::UpperTruncatedDist::set_ubound
prior_hessian::UpperTruncatedDist::global_ubound
prior_hessian::UpperTruncatedDist::operator!=
prior_hessian::UpperTruncatedDist::set_bounds
prior_hessian::UpperTruncatedDist::ubound
prior_hessian::UpperTruncatedDist::set_lbound

7.66.3.8 template< class Dist > bool prior_hessian::UpperTruncatedDist< Dist >::operator== (const UpperTruncatedDist< Dist > & *o*) const [inline]

Definition at line 40 of file UpperTruncatedDist.h.

Referenced by prior_hessian::UpperTruncatedDist< Dist >::operator!=().

Here is the caller graph for this function:

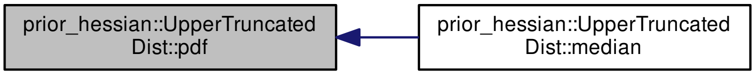

prior_hessian::UpperTruncated Dist::operator==
prior_hessian::UpperTruncated Dist::operator!=

7.66.3.9 template< class Dist > double prior_hessian::UpperTruncatedDist< Dist >::pdf (double *x*) const

Definition at line 153 of file UpperTruncatedDist.h.

Referenced by prior_hessian::UpperTruncatedDist< Dist >::median().

Here is the caller graph for this function:


prior_hessian::UpperTruncated Dist::pdf
prior_hessian::UpperTruncated Dist::median

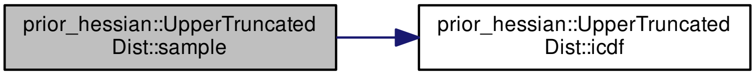
7.66.3.10 template< class Dist > template< class RngT > double prior_hessian::UpperTruncatedDist< Dist >::sample (RngT & *rng*) const

Definition at line 166 of file UpperTruncatedDist.h.

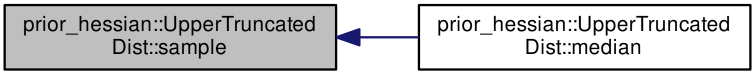
References prior_hessian::UpperTruncatedDist< Dist >::icdf().

Referenced by prior_hessian::UpperTruncatedDist< Dist >::median().

Here is the call graph for this function:


prior_hessian::UpperTruncated Dist::sample
prior_hessian::UpperTruncated Dist::icdf

Here is the caller graph for this function:


prior_hessian::UpperTruncated Dist::sample
prior_hessian::UpperTruncated Dist::median

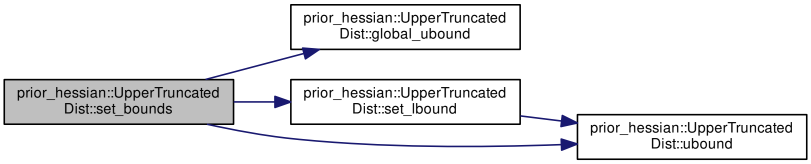
7.66.3.11 template< class Dist > void prior_hessian::UpperTruncatedDist< Dist >::set_bounds (double *lbound,* double *ubound*)

Definition at line 73 of file UpperTruncatedDist.h.

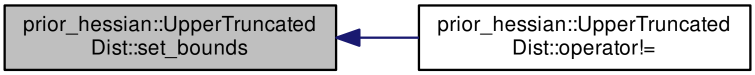
References prior_hessian::UpperTruncatedDist< Dist >::global_ubound(), prior_hessian::UpperTruncatedDist< Dist >::set_lbound(), and prior_hessian::UpperTruncatedDist< Dist >::ubound().

Referenced by prior_hessian::UpperTruncatedDist< Dist >::operator!=().

Here is the call graph for this function:


prior_hessian::UpperTruncated Dist::set_bounds
prior_hessian::UpperTruncated Dist::global_ubound
prior_hessian::UpperTruncated Dist::set_lbound
prior_hessian::UpperTruncated Dist::ubound

Here is the caller graph for this function:


prior_hessian::UpperTruncated Dist::set_bounds
prior_hessian::UpperTruncated Dist::operator!=

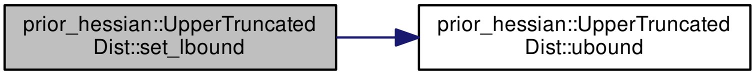
7.66.3.12 template<class Dist > void prior_hessian::UpperTruncatedDist< Dist >::set_lbound (double *ubound*)

Definition at line 95 of file UpperTruncatedDist.h.

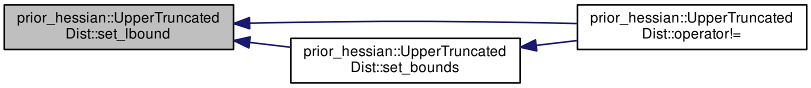
References prior_hessian::UpperTruncatedDist< Dist >::ubound().

Referenced by prior_hessian::UpperTruncatedDist< Dist >::operator!=(), and prior_hessian::UpperTruncatedDist< Dist >::set_bounds().

Here is the call graph for this function:


prior_hessian::UpperTruncated Dist::set_lbound
prior_hessian::UpperTruncated Dist::ubound

Here is the caller graph for this function:


prior_hessian::UpperTruncated Dist::set_lbound
prior_hessian::UpperTruncated Dist::set_bounds
prior_hessian::UpperTruncated Dist::operator!=

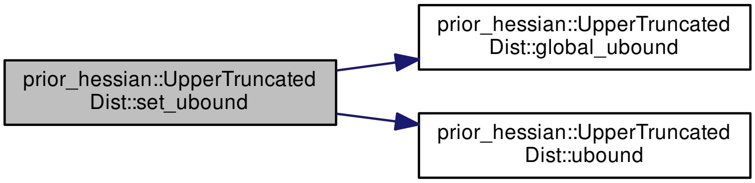
7.66.3.13 template<class Dist > void prior_hessian::UpperTruncatedDist< Dist >::set_ubound (double *ubound*)

Definition at line 111 of file UpperTruncatedDist.h.

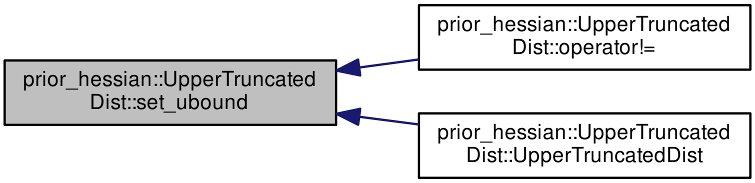
References prior_hessian::UpperTruncatedDist< Dist >::global_ubound(), and prior_hessian::UpperTruncatedDist< Dist >::ubound().

Referenced by prior_hessian::UpperTruncatedDist< Dist >::operator!=(), and prior_hessian::UpperTruncatedDist< Dist >::UpperTruncatedDist().

Here is the call graph for this function:


prior_hessian::UpperTruncated Dist::set_ubound
prior_hessian::UpperTruncated Dist::global_ubound
prior_hessian::UpperTruncated Dist::ubound

Here is the caller graph for this function:


prior_hessian::UpperTruncated
Dist::set_ubound
prior_hessian::UpperTruncated
Dist::operator!=
prior_hessian::UpperTruncated
Dist::UpperTruncatedDist

7.66.3.14 template< class Dist > bool prior_hessian::UpperTruncatedDist< Dist >::truncated ( ) const [inline]

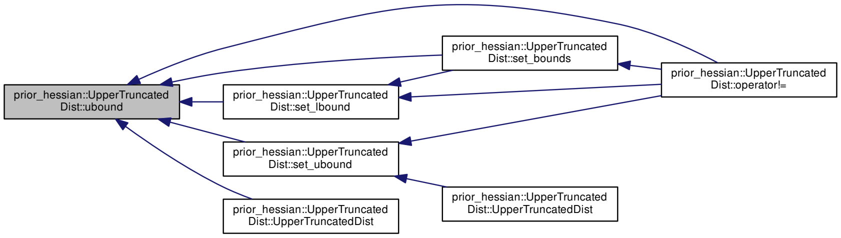
Definition at line 39 of file UpperTruncatedDist.h.

7.66.3.15 template< class Dist > double prior_hessian::UpperTruncatedDist< Dist >::ubound ( ) const [inline]

Definition at line 37 of file UpperTruncatedDist.h.

Referenced by prior_hessian::UpperTruncatedDist< Dist >::operator!=(), prior_hessian::UpperTruncatedDist< Dist >::set_bounds(), prior_hessian::UpperTruncatedDist< Dist >::set_lbound(), prior_hessian::UpperTruncatedDist< Dist >::set_ubound(), and prior_hessian::UpperTruncatedDist< Dist >::UpperTruncatedDist().

Here is the caller graph for this function:


prior_hessian::UpperTruncated
Dist::ubound
prior_hessian::UpperTruncated
Dist::set_bounds
prior_hessian::UpperTruncated
Dist::set_lbound
prior_hessian::UpperTruncated
Dist::set_ubound
prior_hessian::UpperTruncated
Dist::UpperTruncatedDist
prior_hessian::UpperTruncated
Dist::operator!=
prior_hessian::UpperTruncated
Dist::UpperTruncatedDist

The documentation for this class was generated from the following file:

- UpperTruncatedDist.h

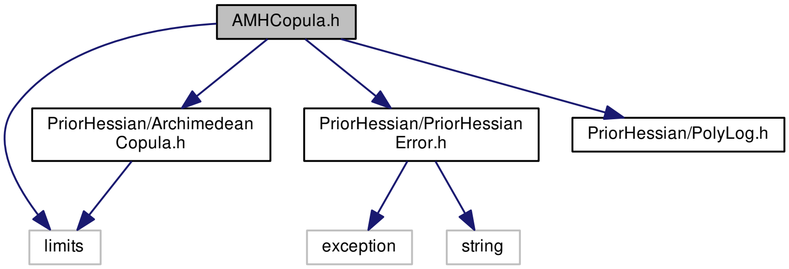
8 File Documentation

8.1 AMHCopula.h File Reference

Ali-Mikhail-Haq Archimedean Copula.

```
#include <limits>
#include "PriorHessian/PriorHessianError.h"
#include "PriorHessian/ArchimedeanCopula.h"
#include "PriorHessian/PolyLog.h"
```

Include dependency graph for AMHCopula.h:


AMHCopula.h
PriorHessian/Archimedean Copula.h
PriorHessian/PriorHessian Error.h
PriorHessian/PolyLog.h
limits
exception
string

Classes

- class prior_hessian::AMHCopula< Ndim >

Namespaces

- prior_hessian

8.1.1 Detailed Description

Ali-Mikhail-Haq Archimedean Copula.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

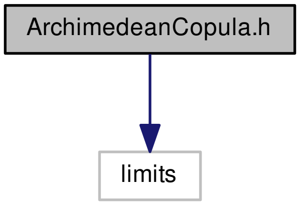
2017-2019

8.2 ArchimedeanCopula.h File Reference

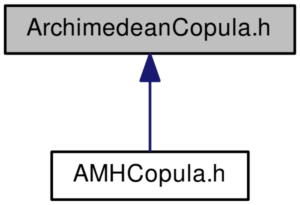
CopulaDist base class.

```
#include <limits>
```

Include dependency graph for ArchimedeanCopula.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::ArchimedeanCopula
- struct prior_hessian::ArchimedeanCopula::D_GenTerms
- struct prior_hessian::ArchimedeanCopula::D2_GenTerms
- struct prior_hessian::ArchimedeanCopula::D_IGenTerms
- struct prior_hessian::ArchimedeanCopula::D2_IGenTerms
- struct prior_hessian::ArchimedeanCopula::DTheta_GenTerms
- struct prior_hessian::ArchimedeanCopula::D2Theta_GenTerms
- struct prior_hessian::ArchimedeanCopula::DTheta_IGenTerms
- struct prior_hessian::ArchimedeanCopula::D2Theta_IGenTerms

Namespaces

- prior_hessian

8.2.1 Detailed Description

CopulaDist base class.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

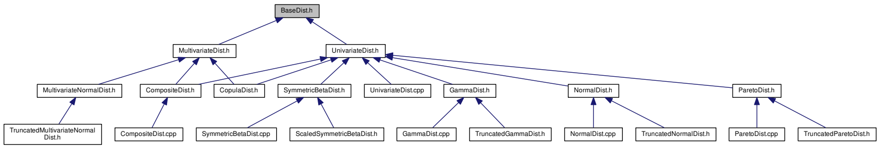
Date

2017 - 2018

8.3 BaseDist.h File Reference

The Base class for UnivariateDist and MultivariateDist.

This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::BaseDist

Namespaces

- prior_hessian

8.3.1 Detailed Description

The Base class for UnivariateDist and MultivariateDist.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

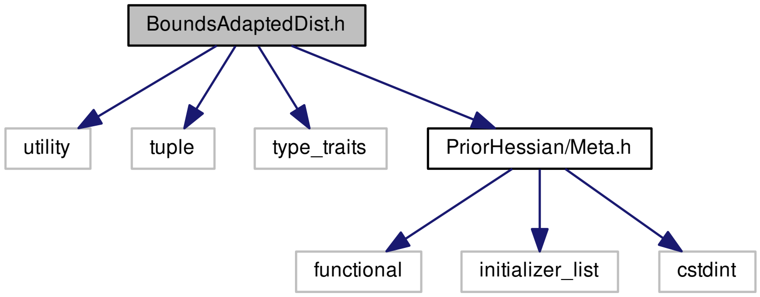
2017-2019

8.4 BoundsAdaptedDist.h File Reference

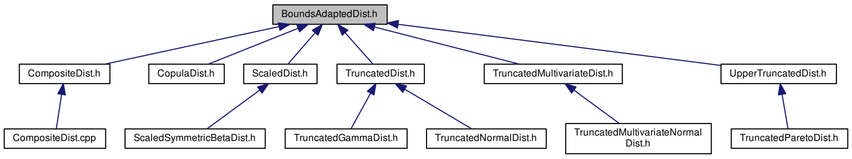
Functions and type-traits to enable easy wrapping of distributions in bounds-modifiable adapters.

```
#include <utility>
#include <tuple>
#include <type_traits>
#include "PriorHessian/Meta.h"
```

Include dependency graph for BoundsAdaptedDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::detail::dist_adaptor_traits< Dist >
- struct prior_hessian::meta::all_dists_are_bounded< DistTs >

Namespaces

- prior_hessian
- prior_hessian::detail
- prior_hessian::meta

    Class templates to utilize sequencing behavior of std::initializer_list expressions.

Typedefs

- template< class DistT >
  using prior_hessian::detail::DistTraitsT = detail::dist_adaptor_traits< std::decay_t< DistT >>
- template< class DistT >
  using prior_hessian::BoundsAdaptedDistT = typename detail::dist_adaptor_traits< std::decay_t< DistT >>::bounds_adapted_dist
- template<class... DistTs>
  using prior_hessian::meta::ConstructableIfAllDistsAreBoundedT = std::enable_if< all_dists_are_bounded< DistTs... >::value, bool >
- template<class... DistTs>
  using prior_hessian::meta::ConstructableIfNotAllDistsAreBoundedT = std::enable_if<!all_dists_are_bounded< DistTs... >::value, bool >

Functions

- template<class... Ts, std::size_t... I>
  std::tuple< BoundsAdaptedDistT< Ts >... > prior_hessian::detail::make_adapted_bounded_dist_tuple (std::tuple< Ts... > &&dists, std::index_sequence< I... >)
- template<class... Ts, std::size_t... I>
  std::tuple< BoundsAdaptedDistT< Ts >... > prior_hessian::detail::make_adapted_bounded_dist_tuple (const std::tuple< Ts... > &dists, std::index_sequence< I... >)
- template<class Dist , typename = meta::EnableIfIsNotTupleT<Dist>>
  std::enable_if_t< detail::DistTraitsT< Dist >::adaptable_bounds, Dist > prior_hessian::make_adapted_bounded_dist (Dist &&dist)
- template<class Dist , typename = meta::EnableIfIsNotTupleT<Dist>>
  std::enable_if_t< !detail::DistTraitsT< Dist >::adaptable_bounds, BoundsAdaptedDistT< Dist > > prior_hessian::make_adapted_bounded_dist (Dist &&dist)
- template<class Dist , class Vec , typename = meta::EnableIfIsNotTupleT<Dist>>
  std::enable_if_t< detail::DistTraitsT< Dist >::adaptable_bounds, Dist > prior_hessian::make_adapted_bounded_dist (Dist &&dist, Vec &&lbound, Vec &&ubound)
- template<class Dist , class Vec , typename = meta::EnableIfIsNotTupleT<Dist>>
  std::enable_if_t<!detail::DistTraitsT< Dist >::adaptable_bounds, BoundsAdaptedDistT< Dist > > prior_hessian::make_adapted_bounded_dist (Dist &&dist, Vec &&lbound, Vec &&ubound)
- template<class... Ts>
  std::tuple< BoundsAdaptedDistT< Ts >... > prior_hessian::make_adapted_bounded_dist_tuple (Ts &&...ts)
- template<class... Ts>
  std::tuple< BoundsAdaptedDistT< Ts >... > prior_hessian::make_adapted_bounded_dist_tuple (std::tuple< Ts... > &&dists)
- template<class... Ts>
  std::tuple< BoundsAdaptedDistT< Ts >... > prior_hessian::make_adapted_bounded_dist_tuple (const std::tuple< Ts... > &dists)

8.4.1 Detailed Description

Functions and type-traits to enable easy wrapping of distributions in bounds-modifiable adapters.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

2018-2019 The bounds-adapted version of a distribution is a distribution that has been wrapped by an adapter-class that modifies the distribution so that the bounds can be set to finite values.

The main types of adapters are

- TruncatedDist:
  - Has global_ubound and global_lbound which may both be infinite (e.g., with the NormalDist)
  - Adapts distributions: NormalDist, GammaDist
- UpperTrunctedDist: Adapts distributions which already have an inherit lower-bound as a parameter
  - Adapts distributions: ParatoDist
- ScaledDist:
  - Adapts distributions with finite domain like the Beta distribution by scaling them to arbitrary finite bounds
  - Adapts distributions: BetaDist, SymmetricBetaDist

Functions: make_adapted_bounded_dist

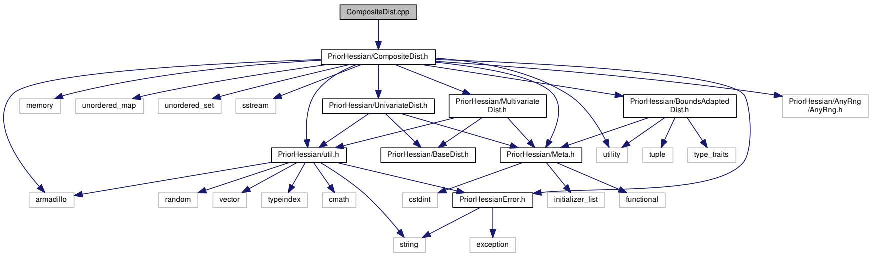
- Make a bounds-adapted version of given distribution make_adapted_bounded_dist_tuple -
- Make a tuple of bounds-adapted version of given distributions

8.5 CompositeDist.cpp File Reference

CompositeDist and associated classes and nested classes.

```
#include "PriorHessian/CompositeDist.h"
```

Include dependency graph for CompositeDist.cpp:



Namespaces

- prior_hessian

Functions

- std::ostream & prior_hessian::operator<< (std::ostream &out, const CompositeDist &comp_dist)

8.5.1 Detailed Description

CompositeDist and associated classes and nested classes.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

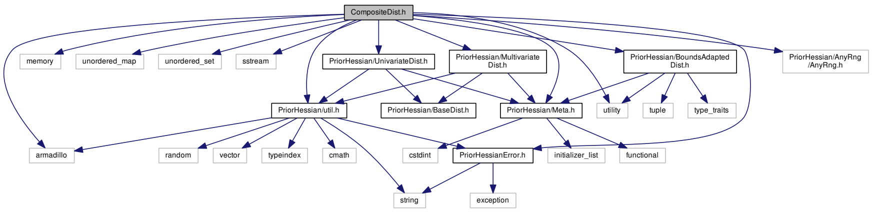
2017-2019

8.6 CompositeDist.h File Reference

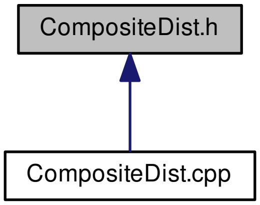
CompositeDist class declaration and inline and templated member function definitions.

```
#include <utility>
#include <memory>
#include <unordered_map>
#include <unordered_set>
#include <sstream>
#include <armadillo>
#include "PriorHessian/Meta.h"
#include "PriorHessian/util.h"
#include "PriorHessian/PriorHessianError.h"
#include "PriorHessian/UnivariateDist.h"
#include "PriorHessian/MultivariateDist.h"
#include "PriorHessian/BoundsAdaptedDist.h"
#include "PriorHessian/AnyRng/AnyRng.h"
```

Include dependency graph for CompositeDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::CompositeDist

  A probability distribution made of independent component distributions composing groups of 1 or more variables.
- class prior_hessian::CompositeDist::ComponentDistAdaptor< DistT, Enable >
- class prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, UnivariateDist > >
- class prior_hessian::CompositeDist::ComponentDistAdaptor< Dist, meta::EnableIfSubclassT< Dist, MultivariateDist > >

Namespaces

- prior_hessian

Functions

- std::ostream & prior_hessian::operator<< (std::ostream &out, const CompositeDist &comp_dist)

8.6.1 Detailed Description

CompositeDist class declaration and inline and templated member function definitions.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

2017-2019

8.6.2 Class Documentation

8.6.2.1 class prior_hessian::CompositeDist::ComponentDistAdaptor

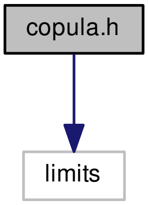
template<class DistT, typename Enable = void>
class prior_hessian::CompositeDist::ComponentDistAdaptor< DistT, Enable >

Definition at line 64 of file CompositeDist.h.

8.7 copula.h File Reference

CopulaDist base class.

`#include <limits>`
Include dependency graph for copula.h:



8.7.1 Detailed Description

CopulaDist base class.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

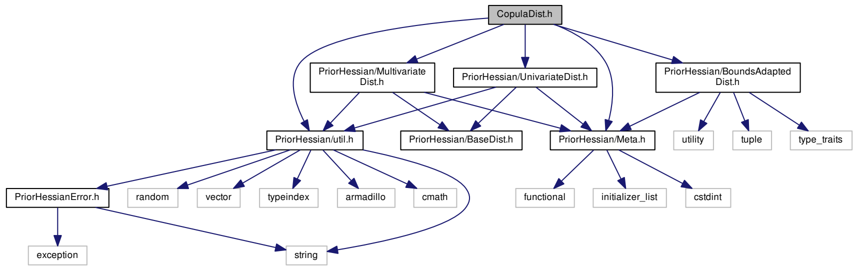
2017-2019

8.8 CopulaDist.h File Reference

CopulaDist base class.

```
#include "PriorHessian/util.h"
#include "PriorHessian/Meta.h"
#include "PriorHessian/UnivariateDist.h"
#include "PriorHessian/MultivariateDist.h"
#include "PriorHessian/BoundsAdaptedDist.h"
```

Include dependency graph for CopulaDist.h:



Classes

- class prior_hessian::CopulaDistImpl::CopulaDist< CopulaTemplate, MarginalDistTs >
- struct prior_hessian::detail::dist_adaptor_traits< CopulaDistImpl::CopulaDist< CopulaTemplate, DistTs... > >

Namespaces

- prior_hessian
- prior_hessian::CopulaDistImpl
- prior_hessian::detail

Typedefs

- template<template< int > class CopulaTemplate, class... MarginalDistTs>
  using prior_hessian::CopulaDist = CopulaDistImpl::CopulaDist< CopulaTemplate, BoundsAdaptedDistT< MarginalDistTs >... >

Functions

- template<template< int > class CopulaTemplate, class... MarginalDistTs>
  CopulaDist< CopulaTemplate, MarginalDistTs... > prior_hessian::make_copula_dist (CopulaTemplate< sizeof...(MarginalDistTs)> &&copula, MarginalDistTs &&...dists)

8.8.1 Detailed Description

CopulaDist base class.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

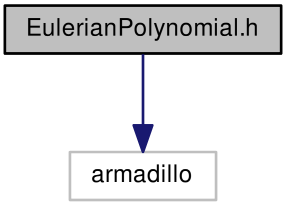
2017-2019

8.9 EulerianPolynomial.h File Reference

EulerianPolynomial computation.

```
#include <armadillo>
```

Include dependency graph for EulerianPolynomial.h:



Classes

- struct prior_hessian::eulerian_number< N, M >
- struct prior_hessian::eulerian_number< 0, M >

Namespaces

- prior_hessian
- prior_hessian::detail

Functions

- template<long N, long... I>
  VecT prior_hessian::detail::eulerian_polynomial ()
- template<long N>
  VecT prior_hessian::eulerian_polynomial ()

8.9.1 Detailed Description

EulerianPolynomial computation.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

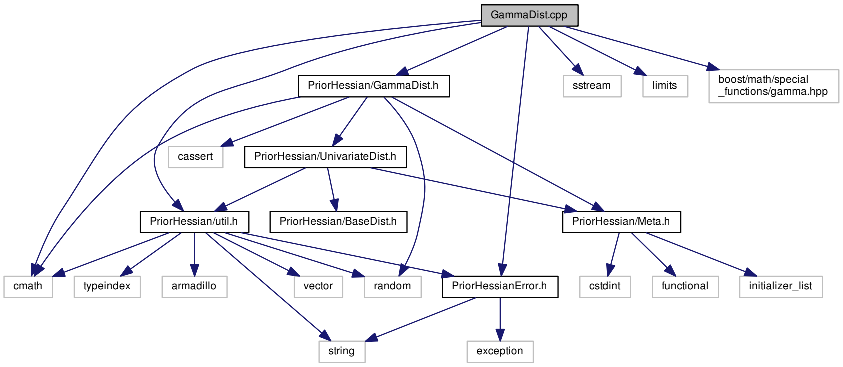
2017-2019

8.10 GammaDist.cpp File Reference

GammaDist class definition.

```
#include "PriorHessian/GammaDist.h"
#include "PriorHessian/util.h"
#include "PriorHessian/PriorHessianError.h"
#include <cmath>
#include <sstream>
#include <limits>
#include <boost/math/special_functions/gamma.hpp>
```

Include dependency graph for GammaDist.cpp:



Namespaces

- prior_hessian

8.10.1 Detailed Description

GammaDist class definition.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

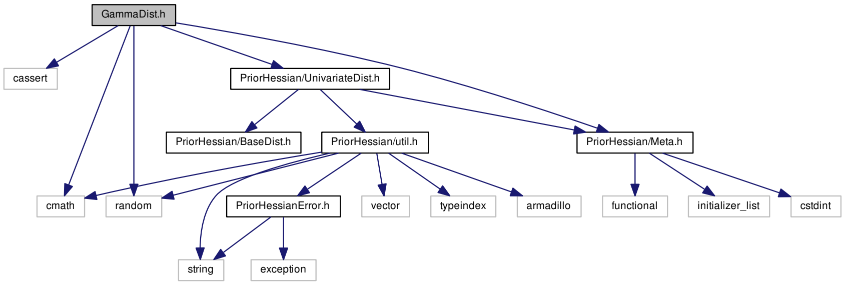
2017-2019

8.11 GammaDist.h File Reference

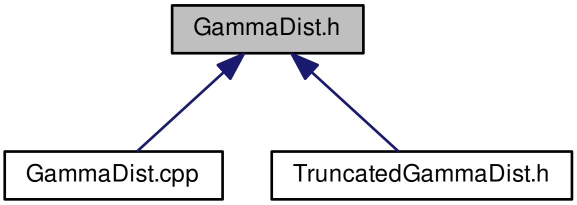
GammaDist class declaration and templated methods.

```
#include <cassert>
#include <cmath>
#include <random>
#include "PriorHessian/Meta.h"
#include "PriorHessian/UnivariateDist.h"
```

Include dependency graph for GammaDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::GammaDist

  Gamma distribution.

Namespaces

- prior_hessian

8.11.1 Detailed Description

GammaDist class declaration and templated methods.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

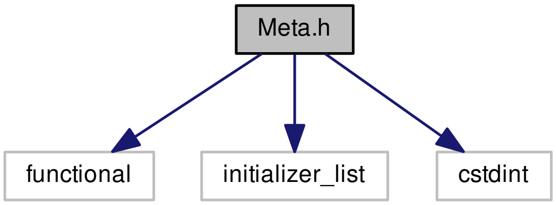
2017-2019

8.12 Meta.h File Reference

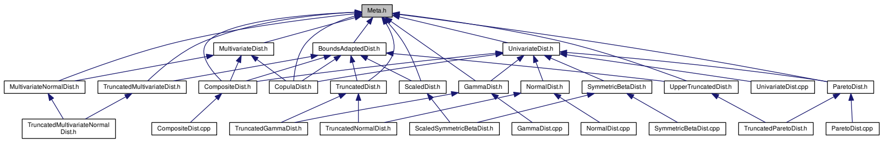
Enables the use of variadic templates in interesting ways.

```
#include <functional>
#include <initializer_list>
#include <cstdint>
```

Include dependency graph for Meta.h:



This graph shows which files directly or indirectly include this file:



Classes

- struct prior_hessian::meta::conjunction< ... >
- struct prior_hessian::meta::conjunction< B1 >
- struct prior_hessian::meta::conjunction< B1, Bn... >
- struct prior_hessian::meta::disjunction< ... >
- struct prior_hessian::meta::disjunction< B1 >
- struct prior_hessian::meta::disjunction< B1, Bn... >
- struct prior_hessian::meta::is_template_of< class, typename >
- struct prior_hessian::meta::is_template_of< ClassTemplate, ClassTemplate< Ts... > >
- struct prior_hessian::meta::is_numeric_template_of< class, typename >
- struct prior_hessian::meta::is_numeric_template_of< ClassNumericTemplate, ClassNumericTemplate< Is... > >
- class prior_hessian::meta::is_subclass_of_numeric_template< T, U >
- class prior_hessian::meta::is_copula< T, U >

Namespaces

- prior_hessian
- prior_hessian::meta

  Class templates to utilize sequencing behavior of std::initializer_list expressions.

Macros

- #define GCC_VERSION (__GNUC__ ∗ 100 + __GNUC_MINOR__ ∗ 10 + __GNUC_PATCHLEVEL__)
- #define PRIOR_HESSIAN_META_CONSTEXPR
- #define PRIOR_HESSIAN_META_HAS_CONSTEXPR 0

Typedefs

- template<template< template< int > class, class... > class CopulaT, class U >
  using prior_hessian::meta::ConstructableIfIsCopulaT = std::enable_if_t< is_copula< CopulaT, U >::value,bool >
- template<class ReturnT , class BoolT >
  using prior_hessian::meta::ReturnIfT = std::enable_if_t< BoolT::value, ReturnT >
- template<bool val>
  using prior_hessian::meta::ConstructableIf = std::enable_if_t< val, bool >
- template<bool val>
  using prior_hessian::meta::ConstructableIfNot = std::enable_if_t<!val, bool >
- template<class T , class SelfT >
  using prior_hessian::meta::ConstructableIfNotSelfT = std::enable_if_t<!std::is_same< std::decay_t< T >, SelfT >::value, bool >
- template<class T , class BaseT >
  using prior_hessian::meta::EnableIfSubclassT = std::enable_if_t< std::is_base_of< std::remove_reference_t< BaseT >, std::remove_reference_t< T >>::value >
- template<class T , template< int > class ClassNumericTemplate>
  using prior_hessian::meta::EnableIfSubclassOfNumericTemplateT = std::enable_if_t< is_subclass_of_numeric_template< ClassNumericTemplate, std::remove_reference_t< T >>::value >

- template< class ReturnT , class T , template< int > class ClassNumericTemplate>
  using prior_hessian::meta::ReturnIfSubclassOfNumericTemplateT = std::enable_if_t< is_subclass_of_numeric_template< ClassNumericTemplate, std::remove_reference_t< T >>::value, ReturnT >
- template< class T , class SelfT >
  using prior_hessian::meta::EnableIfNotIsSelfT = std::enable_if_t< !std::is_same< std::decay_t< T >, SelfT >::value >
- template< class ReturnT , class T , class BaseT >
  using prior_hessian::meta::ReturnIfSubclassT = std::enable_if_t< std::is_base_of< std::remove_reference_t< BaseT >, std::remove_reference_t< T >>::value, ReturnT >
- template< class BaseT , class... Ts>
  using prior_hessian::meta::EnableIfIsSuperclassOfAllT = std::enable_if_t< conjunction< std::is_base_of< std::remove_reference_t< BaseT >, std::remove_reference_t< Ts >>... >::value >
- template< class T , template< typename... > class ClassTemplate>
  using prior_hessian::meta::EnableIfInstantiatedFromT = std::enable_if_t< is_template_of< ClassTemplate, std::remove_reference_t< T >>::value >
- template< class T , template< int > class ClassTemplate>
  using prior_hessian::meta::EnableIfInstantiatedFromNumericT = std::enable_if_t< is_numeric_template_of< ClassTemplate, std::remove_reference_t< T >>::value >
- template< class ReturnT , class T , template< int > class ClassTemplate>
  using prior_hessian::meta::ReturnIfInstantiatedFromNumericT = std::enable_if_t< is_numeric_template_of< ClassTemplate, std::remove_reference_t< T >>::value, ReturnT >
- template< class T , template< typename... > class ClassTemplate>
  using prior_hessian::meta::EnableIfNotInstantiatedFromT = std::enable_if_t< !is_template_of< ClassTemplate, std::remove_reference_t< T >>::value >
- template< class ReturnT , class TestT , template< typename... > class ClassTemplate>
  using prior_hessian::meta::ReturnIfInstantiatedFromT = std::enable_if_t< is_template_of< ClassTemplate, std::remove_reference_t< TestT >>::value, ReturnT >
- template< class ReturnT , class TestT , template< typename... > class ClassTemplate>
  using prior_hessian::meta::ReturnIfNotInstantiatedFromT = std::enable_if_t< !is_template_of< ClassTemplate, std::remove_reference_t< TestT >>::value, ReturnT >
- template< template< typename > class ClassTemplate, class... Ts>
  using prior_hessian::meta::EnableIfIsTemplateForAllT = std::enable_if_t< conjunction< is_template_of< ClassTemplate, std::remove_reference_t< Ts >>... >::value >
- template< template< typename... > class ClassTemplate, class... Ts>
  using prior_hessian::meta::ConstructableIfIsTemplateForAllT = std::enable_if_t< conjunction< is_template_of< ClassTemplate, std::remove_reference_t< Ts >>... >::value, bool >
- template< class SuperClass , class T >
  using prior_hessian::meta::ConstructableIfIsSuperClassT = std::enable_if_t< std::is_base_of< std::remove_reference_t< SuperClass >, std::remove_reference_t< T >>::value, bool >
- template< class SuperClass , class... Ts>
  using prior_hessian::meta::ConstructableIfIsSuperClassForAllT = std::enable_if_t< conjunction< std::is_base_of< std::remove_reference_t< SuperClass >, std::remove_reference_t< Ts >>... >::value, bool >
- template< class T , template< int > class ClassTemplate>
  using prior_hessian::meta::ConstructableIfInstantiatedFromNumericT = std::enable_if_t< is_numeric_template_of< ClassTemplate, std::remove_reference_t< T >>::value, bool >
- template< class T >
  using prior_hessian::meta::EnableIfIsNotTupleT = std::enable_if_t< !is_template_of< std::tuple, std::remove_reference_t< T >>::value >
- template< class... Ts>
  using prior_hessian::meta::EnableIfNonEmpty = std::enable_if_t< (sizeof...(Ts)>0) >
- template< class... Ts>
  using prior_hessian::meta::EnableIfAllAreNotTupleT = std::enable_if_t< !disjunction< is_template_of< std::tuple, std::remove_reference_t< Ts >>... >::value >

- template<class SelfT , class T >
  using prior_hessian::meta::EnableIfIsNotTupleAndIsNotSelfT = std::enable_if_t< !is_template_of< std::tuple, std::remove_reference_t< T >>::value &&!std::is_same< std::decay_t< T >, SelfT >::value >
- template<class T , class... Ts>
  using prior_hessian::meta::ConstructableIfAllAreNotTupleAndAreNotT = std::enable_if_t< !disjunction< is_template_of< std::tuple, std::remove_reference_t< Ts >>... >::value &&!disjunction< std::is_same< std::decay_t< Ts >, T >... >::value, bool >
- template<class Dist , class BaseDist >
  using prior_hessian::meta::DerivedFrom = std::enable_if_t< std::is_base_of< std::decay_t< BaseDist >, std::decay_t< Dist >>::value, std::decay_t< Dist >>

Functions

- template<class T = int>
  void prior_hessian::meta::call_in_order (std::initializer_list< T >)
- template<class InputIterator , class ResultT , class BinaryOperation >
  PRIOR_HESSIAN_META_CONSTEXPR ResultT prior_hessian::meta::constexpr_accumulate (InputIterator first, InputIterator last, ResultT init, BinaryOperation op)
- PRIOR_HESSIAN_META_CONSTEXPR bool prior_hessian::meta::logical_and_in_order (std::initializer_list< bool > L)
- template<class T >
  PRIOR_HESSIAN_META_CONSTEXPR T prior_hessian::meta::sum_in_order (std::initializer_list< T > L)
- template<class T >
  PRIOR_HESSIAN_META_CONSTEXPR T prior_hessian::meta::prod_in_order (std::initializer_list< T > L)

8.12.1 Detailed Description

Enables the use of variadic templates in interesting ways.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

2017-2019

8.12.2 Macro Definition Documentation

8.12.2.1 #define GCC_VERSION (__GNUC__ ∗ 100 + __GNUC_MINOR__ ∗ 10 + __GNUC_PATCHLEVEL__)

Definition at line 11 of file Meta.h.

8.12.2.2 #define PRIOR_HESSIAN_META_CONSTEXPR

Definition at line 19 of file Meta.h.

Referenced by prior_hessian::meta::call_in_order(), prior_hessian::meta::constexpr_accumulate(), prior_hessian::meta::logical_and_in_order(), and prior_hessian::meta::sum_in_order().

8.12.2.3 #define PRIOR_HESSIAN_META_HAS_CONSTEXPR 0

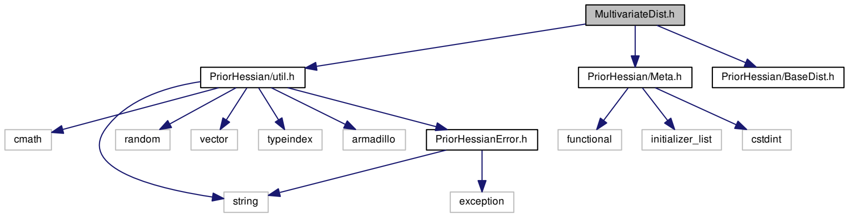
Definition at line 20 of file Meta.h.

8.13 MultivariateDist.h File Reference

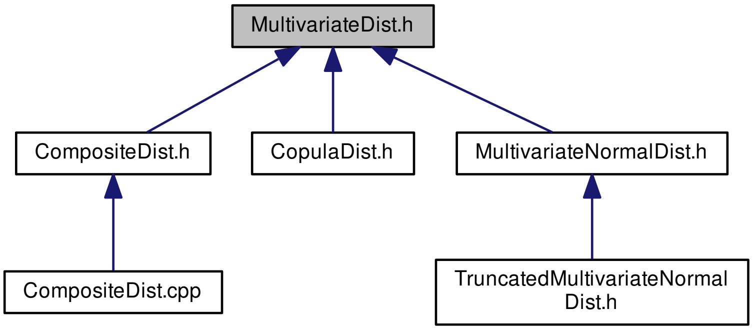
MultivariateDist base class.

```
#include "PriorHessian/util.h"
#include "PriorHessian/Meta.h"
#include "PriorHessian/BaseDist.h"
```

Include dependency graph for MultivariateDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::MultivariateDist

Namespaces

- prior_hessian

8.13.1 Detailed Description

MultivariateDist base class.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

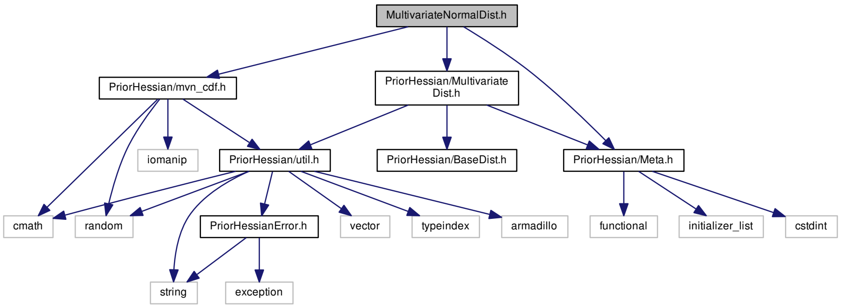
2017-2019

8.14 MultivariateNormalDist.h File Reference

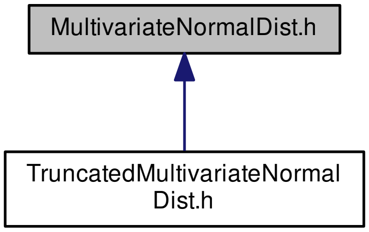
MultivariateNormalDist base class.

```
#include "PriorHessian/MultivariateDist.h"
#include "PriorHessian/Meta.h"
#include "PriorHessian/mvn_cdf.h"
```

Include dependency graph for MultivariateNormalDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::MultivariateNormalDist< Ndim >

  Multivariate Normal distribution.

Namespaces

- prior_hessian
- prior_hessian::helpers

Functions

- template<class Vec , class Mat >
  double prior_hessian::helpers::compute_quadratic_from_symmetric (IdxT Ndim, const Vec &v, const Mat &A)

8.14.1 Detailed Description

MultivariateNormalDist base class.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

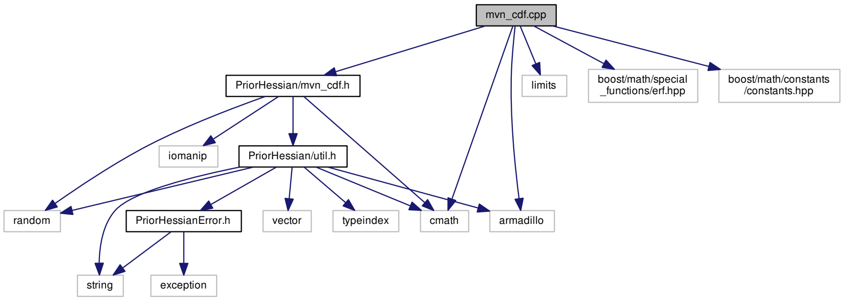
Date

2017-2019

8.15 mvn_cdf.cpp File Reference

```
#include "PriorHessian/mvn_cdf.h"
#include <cmath>
#include <limits>
#include <armadillo>
#include <boost/math/special_functions/erf.hpp>
#include <boost/math/constants/constants.hpp>
```

Include dependency graph for mvn_cdf.cpp:



Namespaces

- prior_hessian

Functions

- double prior_hessian::unit_normal_cdf (double t)
- double prior_hessian::unit_normal_icdf (double u)
- double prior_hessian::bounded (double x)
- double prior_hessian::owen_t_integral (double h, double a, double gh)
- double prior_hessian::owen_b_integral (double h, double k, double r)
- double prior_hessian::donnelly_bvn_integral (double ah, double ak, double r)
- double prior_hessian::donnelly_bvn_integral_orig (double ah, double ak, double r)

8.15.1 Detailed Description

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

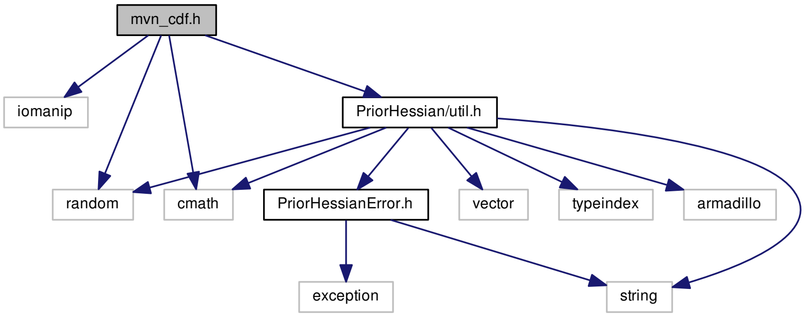
2017-2019

8.16 mvn_cdf.h File Reference

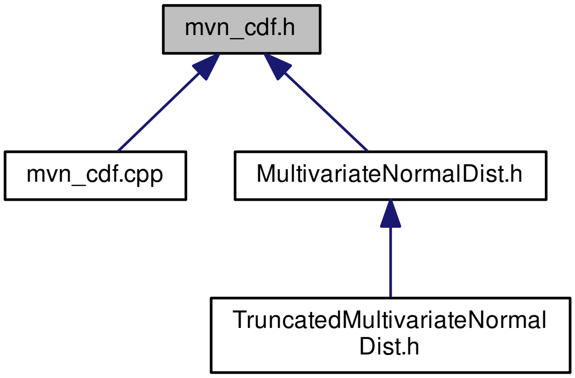
Numerical computation of multivariate normal cdfs in 2,3 and higher dims.

```
#include <iomanip>
#include <random>
#include <cmath>
#include "PriorHessian/util.h"
```

Include dependency graph for mvn_cdf.h:



This graph shows which files directly or indirectly include this file:



Namespaces

- prior_hessian
- prior_hessian::genz
- prior_hessian::genz::fortran

Functions

- double prior_hessian::unit_normal_cdf (double t)
- double prior_hessian::unit_normal_icdf (double u)
- double prior_hessian::owen_t_integral (double h, double a, double gh)
- double prior_hessian::owen_t_integral (double h, double a)
- double prior_hessian::owen_b_integral (double h, double k, double r)
- double prior_hessian::donnelly_bvn_integral (double ah, double ak, double r)
- double prior_hessian::donnelly_bvn_integral_orig (double ah, double ak, double r)
- template<class Vec , class Mat >
  double prior_hessian::donnelly_bvn_cdf (const Vec &b, const Mat &sigma)
- template<class Vec , class Mat >
  double prior_hessian::owen_bvn_cdf (const Vec &b, const Mat &sigma)
- template<class Vec , class Mat >
  double prior_hessian::mc_mvn_integral (const Vec &a, const Vec &b, const Mat &U, double &error, int &niter)
- template<class Vec , class Mat >
  double prior_hessian::mc_mvn_cdf_core (const Vec &b, const Mat &U, double &error, int &niter)
- template<class Vec , class Mat >
  double prior_hessian::mc_mvn_cdf (const Vec &b, const Mat &S, double &error)
- int prior_hessian::genz::fortran::mvndst_ (int ∗n, double lower[ ], double upper[ ], int infin[ ], double correl[ ], int ∗maxpts, double ∗abseps, double ∗releps, double ∗error, double ∗value, int ∗inform)
- template<class Vec , class Mat >
  double prior_hessian::genz::mvn_cdf_genz (const Vec &b, const Mat &S, double &error)

8.16.1 Detailed Description

Numerical computation of multivariate normal cdfs in 2,3 and higher dims.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

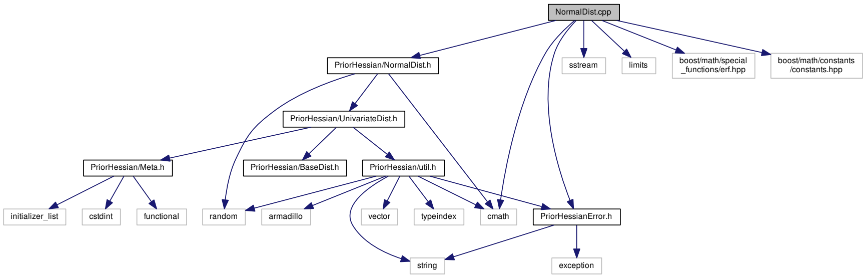
2017-2019

8.17 NormalDist.cpp File Reference

NormalDist class definition.

```
#include "PriorHessian/NormalDist.h"
#include "PriorHessian/PriorHessianError.h"
#include <sstream>
#include <cmath>
#include <limits>
#include <boost/math/special_functions/erf.hpp>
#include <boost/math/constants/constants.hpp>
```

Include dependency graph for NormalDist.cpp:



Namespaces

- prior_hessian

8.17.1 Detailed Description

NormalDist class definition.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

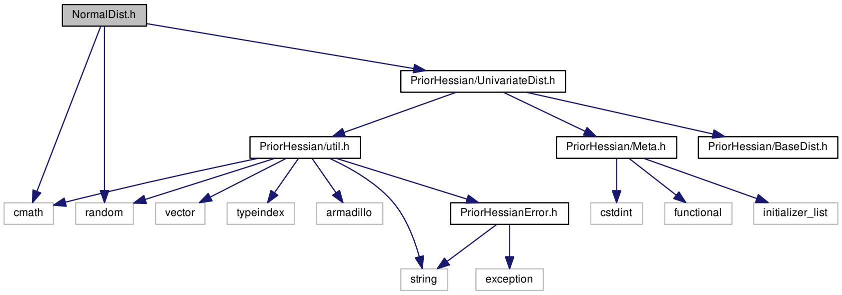
2017-2019

8.18 NormalDist.h File Reference

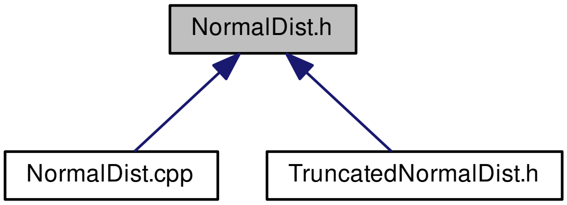
NormalDist class declaration and templated methods.

```
#include <cmath>
#include <random>
#include "PriorHessian/UnivariateDist.h"
```

Include dependency graph for NormalDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::NormalDist

  Normal distribution with truncation.

Namespaces

- prior_hessian

8.18.1 Detailed Description

NormalDist class declaration and templated methods.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

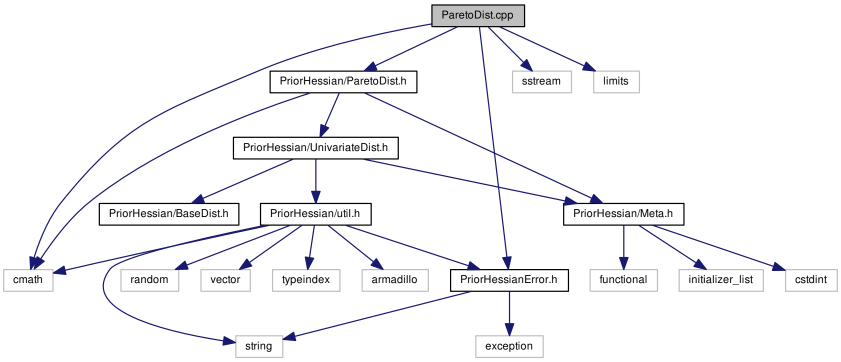
2017-2019

8.19 ParetoDist.cpp File Reference

ParetoDist class definition.

```
#include "PriorHessian/ParetoDist.h"
#include "PriorHessian/PriorHessianError.h"
#include <cmath>
#include <sstream>
#include <limits>
```

Include dependency graph for ParetoDist.cpp:



Namespaces

- prior_hessian

8.19.1 Detailed Description

ParetoDist class definition.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

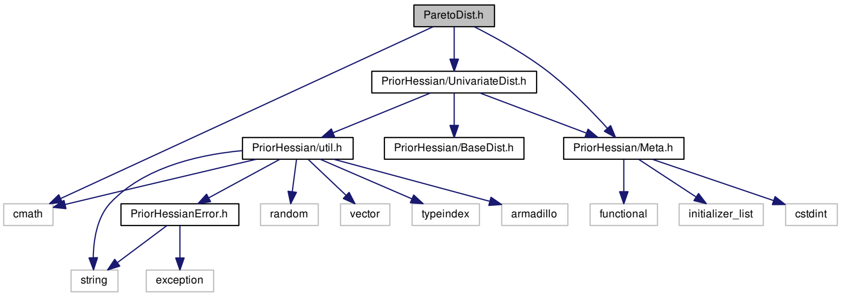
2017-2019

8.20 ParetoDist.h File Reference

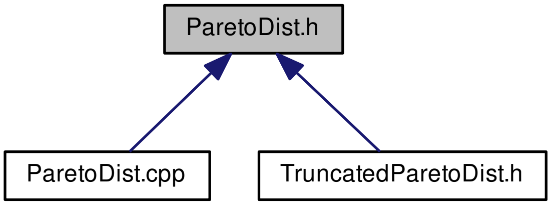
ParetoDist class declaration and templated methods.

```
#include <cmath>
#include "PriorHessian/Meta.h"
#include "PriorHessian/UnivariateDist.h"
```

Include dependency graph for ParetoDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::ParetoDist

  Pareto dist with infinite upper bound.

Namespaces

- prior_hessian

8.20.1 Detailed Description

ParetoDist class declaration and templated methods.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

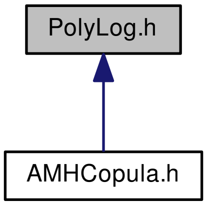
Date

2017-2019

8.21 PolyLog.h File Reference

Poly log computation for negative integer valued parameters.

This graph shows which files directly or indirectly include this file:



Namespaces

- prior_hessian
- prior_hessian::polylog

Functions

- template<int n>
  double prior_hessian::polylog::eulerian_polynomial (double z)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 0 > (double)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 1 > (double z)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 2 > (double z)

- template<>
  double prior_hessian::polylog::eulerian_polynomial< 3 > (double z)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 4 > (double z)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 5 > (double z)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 6 > (double z)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 7 > (double z)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 8 > (double z)
- template<>
  double prior_hessian::polylog::eulerian_polynomial< 9 > (double z)
- template<int n>
  double prior_hessian::polylog::polylog (double z)
- template<>
  double prior_hessian::polylog::polylog< 1 > (double z)

8.21.1 Detailed Description

Poly log computation for negative integer valued parameters.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

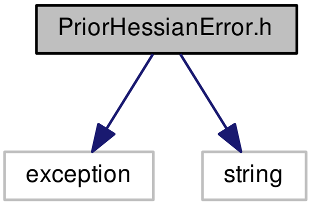
2017-2019

8.22 PriorHessianError.h File Reference

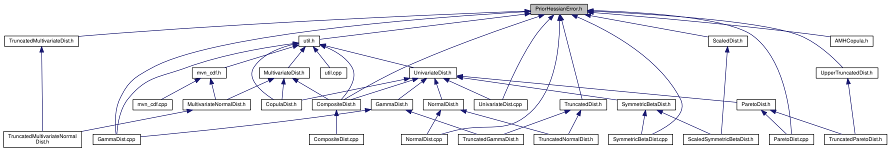
The Exception classes for the PriorHessian library.

```
#include <exception>
#include <string>
```

Include dependency graph for PriorHessianError.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::PriorHessianError
- struct prior_hessian::IndexError

    Indicates a index access was out of bounds.
- struct prior_hessian::InvalidOperationError
- struct prior_hessian::ParameterSizeError
- struct prior_hessian::ParameterValueError
- struct prior_hessian::ParameterNameError
- struct prior_hessian::ParameterNameUniquenessError
- struct prior_hessian::RuntimeConvergenceError
- struct prior_hessian::RuntimeSamplingError
- struct prior_hessian::RuntimeTypeError
- struct prior_hessian::NumericalOverflowError
- struct prior_hessian::NotImplementedError

Namespaces

- prior_hessian

Macros

- #define DEBUG_ASSERT(...)
- #define ASSERT_SETUP(...)

8.22.1 Detailed Description

The Exception classes for the PriorHessian library.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

2017-2019

8.22.2 Macro Definition Documentation

8.22.2.1 #define ASSERT_SETUP(...)

Definition at line 37 of file PriorHessianError.h.

8.22.2.2 #define DEBUG_ASSERT(...)

Definition at line 32 of file PriorHessianError.h.

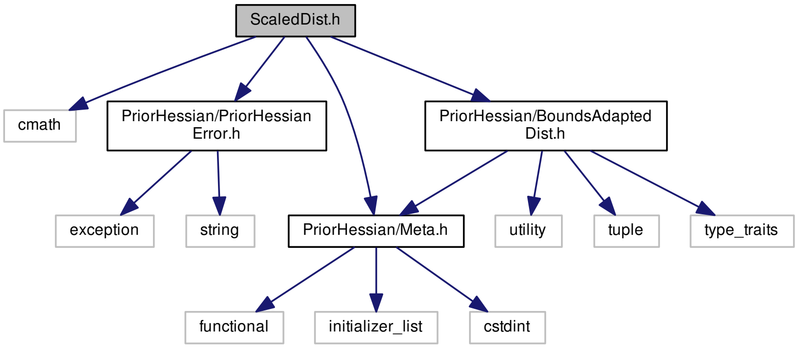
8.23 README.md File Reference

8.24 ScaledDist.h File Reference

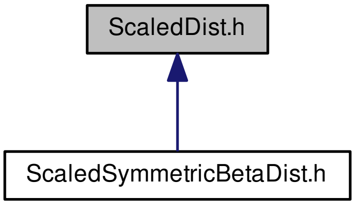
ScaledDist class declaration and templated methods.

```
#include <cmath>
#include "PriorHessian/Meta.h"
#include "PriorHessian/PriorHessianError.h"
#include "PriorHessian/BoundsAdaptedDist.h"
```

Include dependency graph for ScaledDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::ScaledDist< Dist >

Namespaces

- prior_hessian

8.24.1 Detailed Description

ScaledDist class declaration and templated methods.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

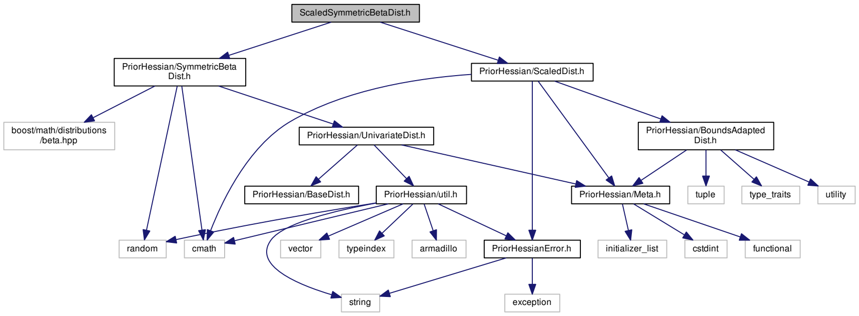
2017-2019

8.25 ScaledSymmetricBetaDist.h File Reference

ScaledSymmetricBetaDist class declaration and templated methods.

```
#include "PriorHessian/SymmetricBetaDist.h"
#include "PriorHessian/ScaledDist.h"
```

Include dependency graph for ScaledSymmetricBetaDist.h:



Classes

- struct prior_hessian::detail::dist_adaptor_traits< SymmetricBetaDist >
- struct prior_hessian::detail::dist_adaptor_traits< ScaledSymmetricBetaDist >

Namespaces

- prior_hessian
- prior_hessian::detail

Typedefs

- using prior_hessian::ScaledSymmetricBetaDist = ScaledDist< SymmetricBetaDist >

Functions

- ScaledSymmetricBetaDist prior_hessian::make_scaled_symmetric_beta_dist (double beta, std::pair< double, double > bounds)

8.25.1 Detailed Description

ScaledSymmetricBetaDist class declaration and templated methods.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

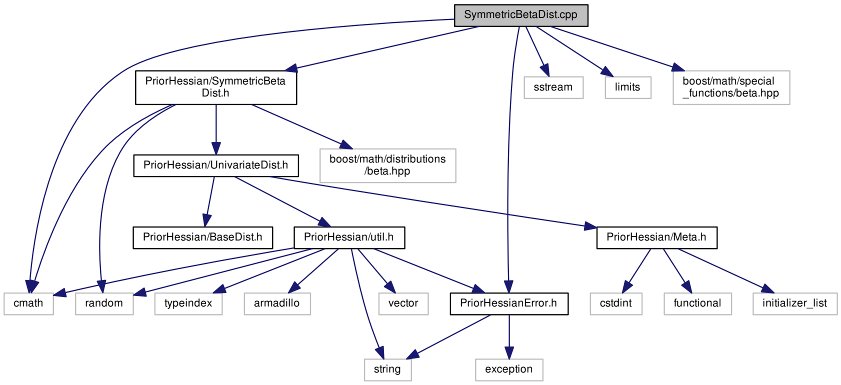
2017-2019

8.26 SymmetricBetaDist.cpp File Reference

SymmetricBetaDist class definition.

```
#include "PriorHessian/SymmetricBetaDist.h"
#include "PriorHessian/PriorHessianError.h"
#include <sstream>
#include <cmath>
#include <limits>
#include <boost/math/special_functions/beta.hpp>
```

Include dependency graph for SymmetricBetaDist.cpp:



Namespaces

- prior_hessian

8.26.1 Detailed Description

SymmetricBetaDist class definition.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

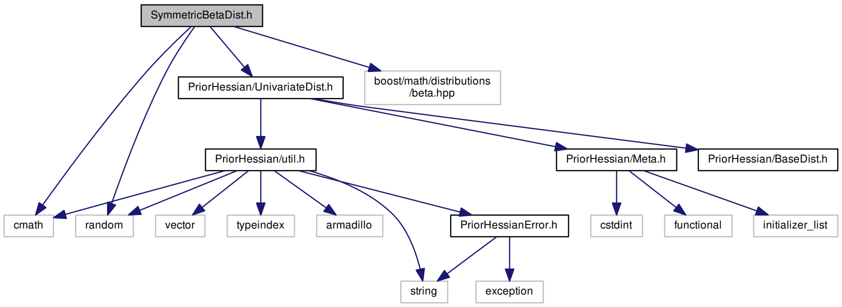
2017-2019

8.27 SymmetricBetaDist.h File Reference

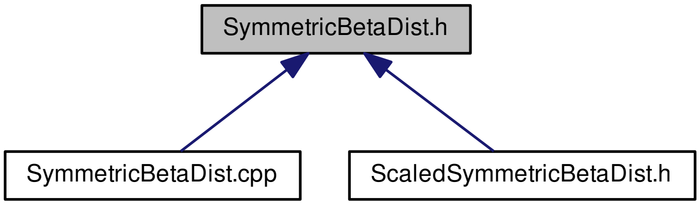
SymmetricBetaDist class declaration and templated methods.

```
#include <cmath>
#include <random>
#include <boost/math/distributions/beta.hpp>
#include "PriorHessian/UnivariateDist.h"
```

Include dependency graph for SymmetricBetaDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::SymmetricBetaDist

  Single parameter beta distribution where $\alpha = \beta$, leading to symmetric bounded distribution.

Namespaces

- prior_hessian

8.27.1 Detailed Description

SymmetricBetaDist class declaration and templated methods.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

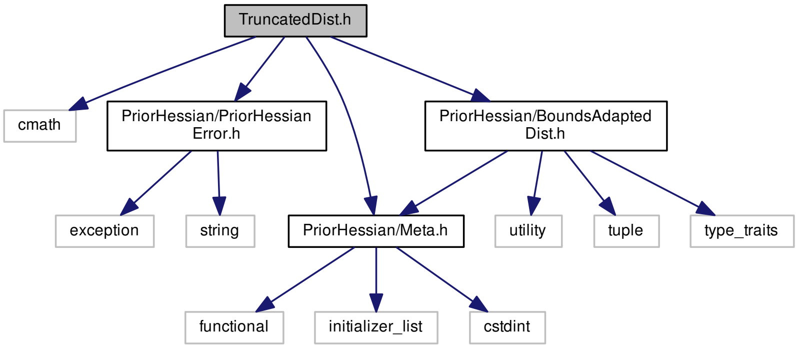
2017-2019

8.28 TruncatedDist.h File Reference

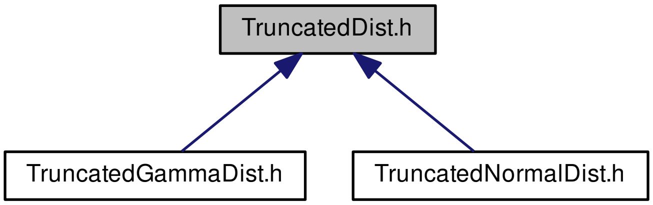
TruncatedDist declaration and templated methods definitions.

```
#include <cmath>
#include "PriorHessian/Meta.h"
#include "PriorHessian/PriorHessianError.h"
#include "PriorHessian/BoundsAdaptedDist.h"
```

Include dependency graph for TruncatedDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::TruncatedDist< Dist >

Namespaces

- prior_hessian

8.28.1 Detailed Description

TruncatedDist declaration and templated methods definitions.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

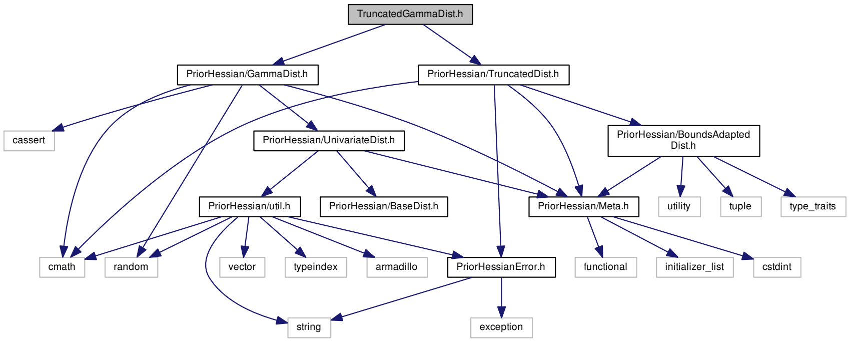
2017-2019

8.29 TruncatedGammaDist.h File Reference

TruncatedGammaDist class declaration and templated methods.

```
#include "PriorHessian/GammaDist.h"
#include "PriorHessian/TruncatedDist.h"
```

Include dependency graph for TruncatedGammaDist.h:



Classes

- struct prior_hessian::detail::dist_adaptor_traits< GammaDist >
- struct prior_hessian::detail::dist_adaptor_traits< TruncatedGammaDist >

Namespaces

- prior_hessian
- prior_hessian::detail

Typedefs

- using prior_hessian::TruncatedGammaDist = TruncatedDist< GammaDist >

Functions

- TruncatedGammaDist prior_hessian::make_bounded_gamma_dist (double scale, double shape, std::pair< double, double > bounds)

8.29.1 Detailed Description

TruncatedGammaDist class declaration and templated methods.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

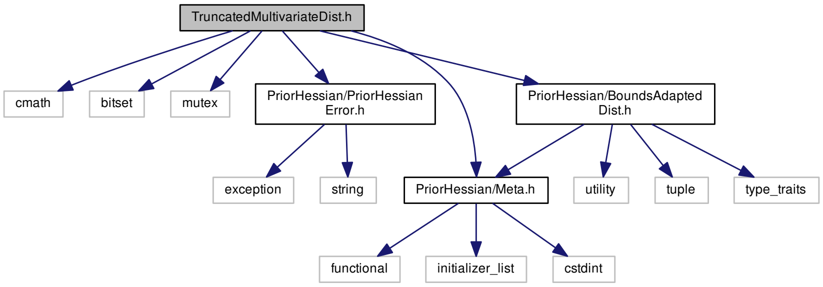
2017-2019

8.30 TruncatedMultivariateDist.h File Reference

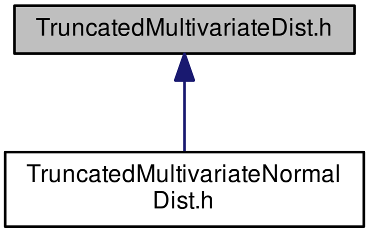
TruncatedMultivariateDist declaration and templated methods definitions.

```
#include <cmath>
#include <bitset>
#include <mutex>
#include "PriorHessian/Meta.h"
#include "PriorHessian/PriorHessianError.h"
#include "PriorHessian/BoundsAdaptedDist.h"
```

Include dependency graph for TruncatedMultivariateDist.h:



This graph shows which files directly or indirectly include this file:


TruncatedMultivariateDist.h
TruncatedMultivariateNormal Dist.h

Classes

- class prior_hessian::mcmc::MCMCData< Ndim >
- class prior_hessian::TruncatedMultivariateDist< Dist >

Namespaces

- prior_hessian
- prior_hessian::mcmc

8.30.1 Detailed Description

TruncatedMultivariateDist declaration and templated methods definitions.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

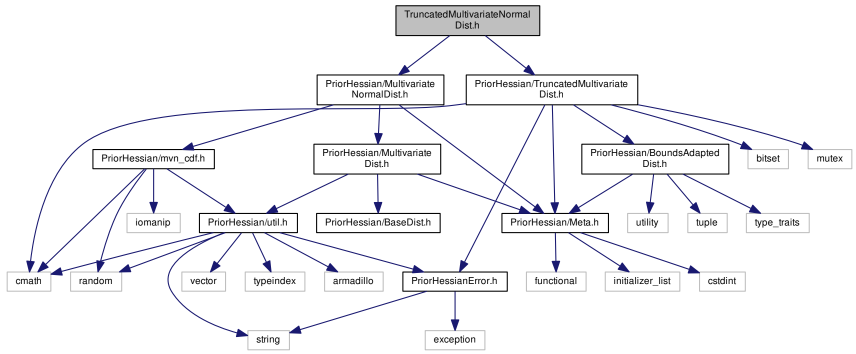
2017-2019

8.31 TruncatedMultivariateNormalDist.h File Reference

TruncatedMultivariateNormalDist class declaration.

```
#include "PriorHessian/MultivariateNormalDist.h"
#include "PriorHessian/TruncatedMultivariateDist.h"
```

Include dependency graph for TruncatedMultivariateNormalDist.h:



Classes

- struct prior_hessian::detail::dist_adaptor_traits< MultivariateNormalDist< Ndim > >
- struct prior_hessian::detail::dist_adaptor_traits< TruncatedMultivariateNormalDist< Ndim > >

Namespaces

- prior_hessian
- prior_hessian::detail

Typedefs

- template<IdxT Ndim>
  using prior_hessian::TruncatedMultivariateNormalDist = TruncatedMultivariateDist< MultivariateNormalDist< Ndim >>

Functions

- template<IdxT Ndim, class Vec , class Mat , class Vec2 >
  TruncatedMultivariateNormalDist< Ndim > prior_hessian::make_bounded_multivariate_normal_dist (Vec &&mu, Mat &&sigma, Vec2 &&lbound, Vec2 &&ubound)

8.31.1 Detailed Description

TruncatedMultivariateNormalDist class declaration.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

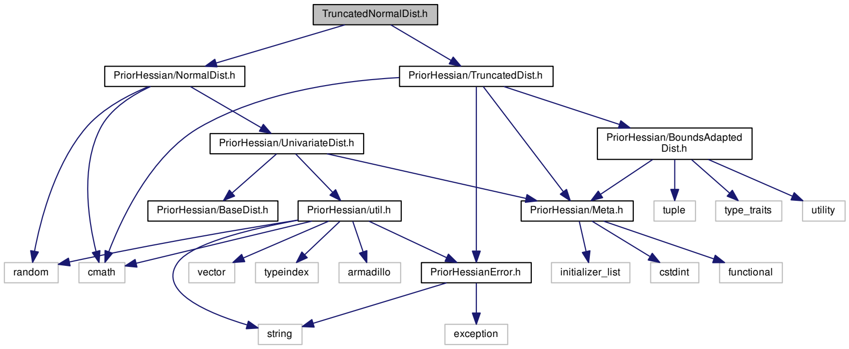
2017-2019

8.32 TruncatedNormalDist.h File Reference

TruncatedNormalDist class declaration.

```
#include "PriorHessian/NormalDist.h"
#include "PriorHessian/TruncatedDist.h"
```

Include dependency graph for TruncatedNormalDist.h:



Classes

- struct prior_hessian::detail::dist_adaptor_traits< NormalDist >
- struct prior_hessian::detail::dist_adaptor_traits< TruncatedNormalDist >

Namespaces

- prior_hessian
- prior_hessian::detail

Typedefs

- using prior_hessian::TruncatedNormalDist = TruncatedDist< NormalDist >

Functions

- TruncatedNormalDist prior_hessian::make_bounded_normal_dist (double mu, double sigma, std::pair< double, double > bounds)

8.32.1 Detailed Description

TruncatedNormalDist class declaration.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

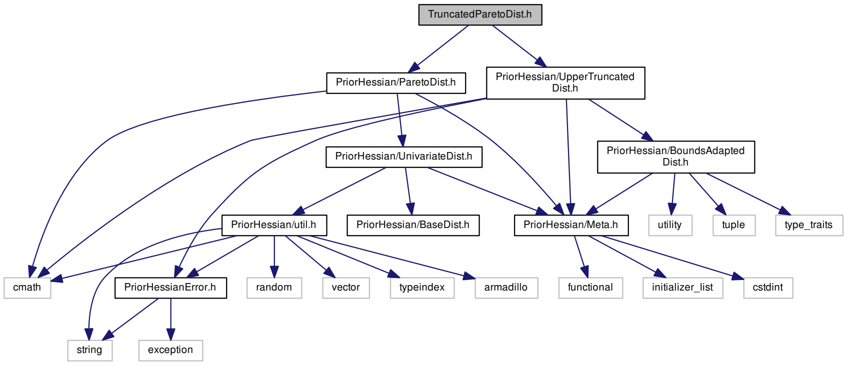
2017-2018

8.33 TruncatedParetoDist.h File Reference

TruncatedParetoDist class declaration and templated methods.

```
#include "PriorHessian/ParetoDist.h"
#include "PriorHessian/UpperTruncatedDist.h"
```

Include dependency graph for TruncatedParetoDist.h:



Classes

- struct prior_hessian::detail::dist_adaptor_traits< ParetoDist >
- struct prior_hessian::detail::dist_adaptor_traits< TruncatedParetoDist >

Namespaces

- prior_hessian
- prior_hessian::detail

Typedefs

- using prior_hessian::TruncatedParetoDist = UpperTruncatedDist< ParetoDist >

Functions

- TruncatedParetoDist prior_hessian::make_bounded_pareto_dist (double alpha, std::pair< double, double > bounds)

8.33.1 Detailed Description

TruncatedParetoDist class declaration and templated methods.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

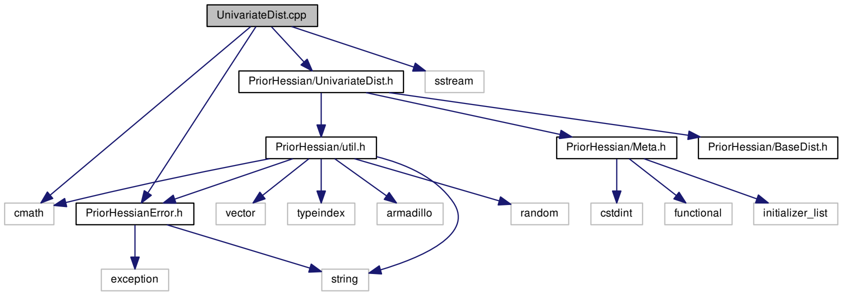
2017-2019

8.34 UnivariateDist.cpp File Reference

UnivariateDist base class method definition.

```
#include "PriorHessian/UnivariateDist.h"
#include "PriorHessian/PriorHessianError.h"
#include <cmath>
#include <sstream>
```

Include dependency graph for UnivariateDist.cpp:



Namespaces

- prior_hessian

8.34.1 Detailed Description

UnivariateDist base class method definition.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

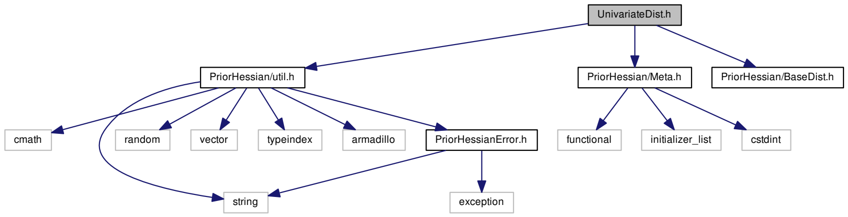
2017-2019

8.35 UnivariateDist.h File Reference

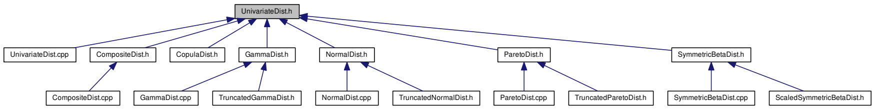
UnivariateDist base class.

```
#include "PriorHessian/util.h"
#include "PriorHessian/Meta.h"
#include "PriorHessian/BaseDist.h"
```

Include dependency graph for UnivariateDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::UnivariateDist

Namespaces

- prior_hessian

8.35.1 Detailed Description

UnivariateDist base class.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

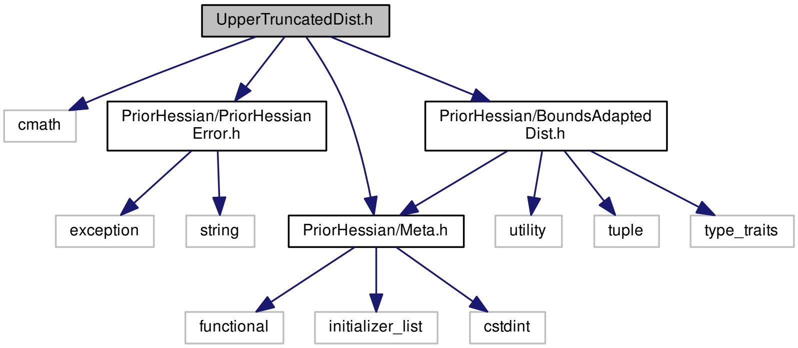
2017-2019

8.36 UpperTruncatedDist.h File Reference

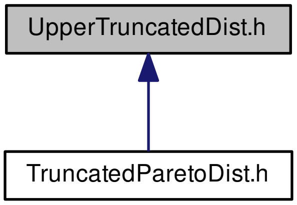
UpperTruncatedDist declaration and templated methods definitions.

```
#include <cmath>
#include "PriorHessian/Meta.h"
#include "PriorHessian/PriorHessianError.h"
#include "PriorHessian/BoundsAdaptedDist.h"
```

Include dependency graph for UpperTruncatedDist.h:



This graph shows which files directly or indirectly include this file:



Classes

- class prior_hessian::UpperTruncatedDist< Dist >

Namespaces

- prior_hessian

8.36.1 Detailed Description

UpperTruncatedDist declaration and templated methods definitions.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

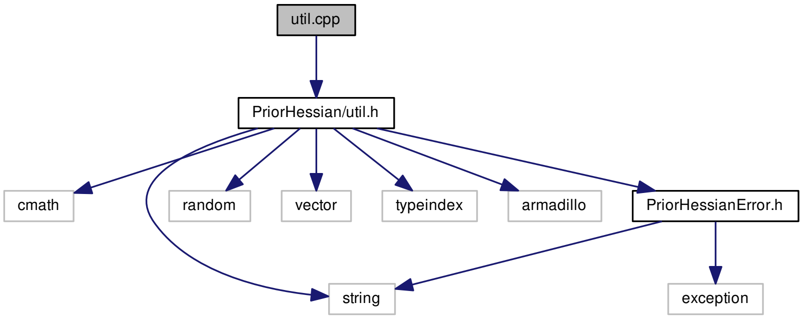
2017-2019

8.37 util.cpp File Reference

Utilities.

```
#include "PriorHessian/util.h"
```

Include dependency graph for util.cpp:



Namespaces

- prior_hessian
- prior_hessian::constants

Variables

- const double prior_hessian::constants::sqrt2 = std::sqrt(2.)
- const double prior_hessian::constants::sqrt2_inv = 1./std::sqrt(2.)
- const double prior_hessian::constants::sqrt2pi = std::sqrt(2.∗arma::datum::pi)
- const double prior_hessian::constants::sqrt2pi_inv = 1./std::sqrt(2.∗arma::datum::pi)
- const double prior_hessian::constants::log2pi = std::log(2.∗arma::datum::pi)

8.37.1 Detailed Description

Utilities.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

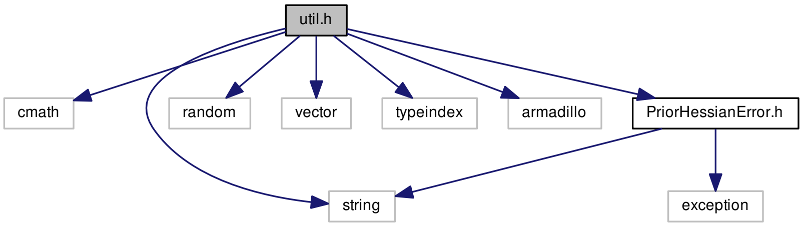
2017-2019

8.38 util.h File Reference

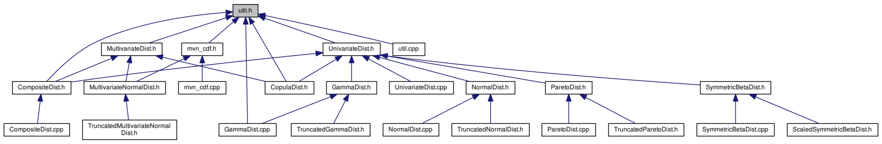
Utilities and namespace globals.

```
#include <cmath>
#include <string>
#include <random>
#include <vector>
#include <typeindex>
#include <armadillo>
#include "PriorHessianError.h"
```

Include dependency graph for util.h:



This graph shows which files directly or indirectly include this file:



Namespaces

- prior_hessian
- prior_hessian::constants

Typedefs

- using prior_hessian::IdxT = arma::uword
- using prior_hessian::UVecT = arma::Col< IdxT >
- using prior_hessian::VecT = arma::Col< double >
- using prior_hessian::MatT = arma::Mat< double >
- using prior_hessian::StringVecT = std::vector< std::string >
- using prior_hessian::TypeInfoVecT = std::vector< std::type_index >

Functions

- template<class T >
  T prior_hessian::square (T t)

8.38.1 Detailed Description

Utilities and namespace globals.

Author

Mark J. Olah (mjo@cs.unm DOT edu)

Date

2017-2019

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