

libDalitz

0.1

Generated by Doxygen 1.8.9.1

Thu Nov 19 2015 15:47:48

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

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RhoOmegaPropagator	19
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FormFactor	17
BlattWeisskopf	6
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Chapter 2

Class Index

2.1 Class List

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

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AbsVarWidth	5
B0toD0pipiModel	5
BlattWeisskopf	6
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RelBreitWigner	18
ResDecayAngularDistribution	19
RhoOmegaPropagator	19
SymDalitzModel	19
VirtualDstarPropagator	20
VirtualResFF	20

Chapter 3

Class Documentation

3.1 AbsPropagator Class Reference

Inheritance diagram for AbsPropagator:

3.2 AbsVarWidth Class Reference

Inheritance diagram for AbsVarWidth:

Public Member Functions

- **AbsVarWidth** (const double &G0, const double &m, const double &p0)
- virtual double **operator()** (const double &s, const double &p) const =0
- double **G0** (void) const
- double **m** (void) const
- double **p0** (void) const

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

- src/absvarwidth.h
- src/absvarwidth.cpp

3.3 B0toD0pipiModel Class Reference

Inheritance diagram for B0toD0pipiModel:

Collaboration diagram for B0toD0pipiModel:

Public Member Functions

- **B0toD0pipiModel** (const double &mB, const double &mD, const double &mpi)
- **EvtComplex Amp** (const [EvtVector4R](#) &p4_p, const [EvtVector4R](#) &moms1, const [EvtVector4R](#) &moms2, const [EvtVector4R](#) &moms3)
- int **GetBin** (const double &mp, const double &mm)

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

- src/b0tod0pipimodel.h
- src/b0tod0pipimodel.cpp

3.4 BlattWeisskopf Class Reference

Inheritance diagram for BlattWeisskopf:

Collaboration diagram for BlattWeisskopf:

Public Member Functions

- **BlattWeisskopf** (const int LL, const double &R, const double &_p0)
- **BlattWeisskopf** (const [BlattWeisskopf](#) &)
- double **operator()** (const double &p) const

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

- src/blattweisskopf.h
- src/blattweisskopf.cpp

3.5 BuggPropagator Class Reference

Inheritance diagram for BuggPropagator:

Collaboration diagram for BuggPropagator:

Public Member Functions

- [EvtComplex](#) **operator()** (const double &s, const double &p=0) const

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

- src/buggpropagator.h
- src/buggpropagator.cpp

3.6 BuggWidth Class Reference

Inheritance diagram for BuggWidth:

Collaboration diagram for BuggWidth:

Public Member Functions

- double **mrGamma1** (const double &s)
- void **GetWidths** (const double &s, double &G1, double >ot)
- double **sA** (void) const
- double **mrsq** (void) const
- double **g1sq** (void) const
- double **z** (void) const
- double **operator()** (const double &s=0, const double &p=0) const

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

- src/buggwidth.h
- src/buggwidth.cpp

3.7 BWidth Class Reference

Inheritance diagram for BWidth:

Collaboration diagram for BWidth:

Public Member Functions

- **BWidth** (const double &G0, const double &m, const double &p0, const int mom)
- double **operator()** (const double &s, const double &p) const

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

- src/bwidth.h
- src/bwidth.cpp

3.8 ConstWidth Class Reference

Inheritance diagram for ConstWidth:

Collaboration diagram for ConstWidth:

Public Member Functions

- **ConstWidth** (const double &G0)
- double **operator()** (const double &s=0, const double &p=0) const

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

- src/constwidth.h
- src/constwidth.cpp

3.9 DalitzGenerator Class Reference

Inheritance diagram for DalitzGenerator:

Collaboration diagram for DalitzGenerator:

Public Member Functions

- **DalitzGenerator** (const [DalitzModel](#) &_dm)
- int **Generate** (const int NEv, std::vector< double > &mABv, std::vector< double > &mACv)
- void **SetMaxTries** (const long &p)
- long **GetMaxTries** (void) const
- void **SetNMajCounts** (const int p)
- void **SetMajorant** (const double &p)

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

- src/dalitzgenerator.h
- src/dalitzgenerator.cpp

3.10 DalitzMCIntegral Class Reference

Inheritance diagram for DalitzMCIntegral:

Collaboration diagram for DalitzMCIntegral:

Public Member Functions

- **DalitzMCIntegral** (const [DalitzModel](#) &_dm)
- double **GetIntegral** (const long &nc=0)
- void **SetNCounts** (const long &p)
- long **GetNCounts** (void) const

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

- src/dalitzmcintegral.h
- src/dalitzmcintegral.cpp

3.11 DalitzModel Class Reference

Inheritance diagram for DalitzModel:

Collaboration diagram for DalitzModel:

Public Member Functions

- **DalitzModel** (const double &mmo, const double &mcha, const double &mchb, const double &mchc)
- virtual [EvtComplex](#) **Amp** (const [EvtVector4R](#) &p4_p, const [EvtVector4R](#) &moms1, const [EvtVector4R](#) &moms2, const [EvtVector4R](#) &moms3)=0
- [EvtComplex](#) **Amp** (const double &mAB, const double &mAC)
- double **P** (const double &mAB, const double &mAC)
- double **Arg** (const double &mAB, const double &mAC)
- void **AddRes** ([EvtResonance2](#) *res)
- const [EvtResonance2](#) * **Res** (const int resn)
- int **ResNum** (void) const
- void **SetGamma** (const int resn, const double &a)
- void **SetMass** (const int resn, const double &a)
- void **SetAmp** (const int resn, const double &a)
- void **SetTheta** (const int resn, const double &a)
- void **SetMomenta** (const int resn, const [EvtVector4R](#) &p4_p, const [EvtVector4R](#) &p4_d1, const [EvtVector4R](#) &p4_d2)
- void **SetABaxis** (const std::string &str)
- void **SetACaxis** (const std::string &str)
- void **SetBCaxis** (const std::string &str)
- std::string **ABaxis** (void) const
- std::string **ACaxis** (void) const
- std::string **BCaxis** (void) const

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

- src/dalitzmodel.h
- src/dalitzmodel.cpp

3.12 DalitzPhaseSpace Class Reference

Inheritance diagram for DalitzPhaseSpace:

Public Member Functions

- **DalitzPhaseSpace** (const double &, const double &, const double &, const double &)
- **DalitzPhaseSpace** (const [DalitzPhaseSpace](#) &phsp)
- bool **IsInPlot** (const double &mAB, const double &mAC)
- double **mBC** (const double &mAC, const double &mAB)
- double **mA** () const
- double **mB** () const
- double **mC** () const
- double **mM** () const
- double **mAB_min** () const
- double **mAB_max** () const
- double **mAC_min** () const
- double **mAC_max** () const
- double **mBC_min** () const
- double **mBC_max** () const
- int **mAB_range** (const double &, double &, double &) const
- void **GetLVs** (const double &mAB, const double &mAC, [EvtVector4R](#) &pd, [EvtVector4R](#) &pks, [EvtVector4R](#) &ppip, [EvtVector4R](#) &ppim)

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

- src/dalitzphasespace.h
- src/dalitzphasespace.cpp

3.13 DalitzPlotObject Class Reference

```
#include <dalitzplotobject.h>
```

Inheritance diagram for DalitzPlotObject:

Public Member Functions

- **DalitzPlotObject** (const std::string &name, const [EvtComplex](#) &=EvtComplex(0, 0))
- **DalitzPlotObject** (const std::string &name, const double &a, const double &phi)
- virtual [EvtComplex](#) **evaluate** ()=0
- void **SetName** (const std::string &name)
- void **SetCAmp** (const [EvtComplex](#) &)
- void **SetAmp** (const double &a)
- void **SetPhase** (const double &phi)
- std::string **Name** (void) const
- [EvtComplex](#) **CAmp** (void) const
- double **Amp** (void) const
- double **Phase** (void) const

3.13.1 Detailed Description

Abstract class for any object can appears on a Dalitz diagram. The class contains name, complex amplitude of the object and virtual operator method evaluat()

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

- src/dalitzplotobject.h
- src/dalitzplotobject.cpp

3.14 DalitzResonance Class Reference

```
#include <dalitzresonance.h>
```

Inheritance diagram for DalitzResonance:

Collaboration diagram for DalitzResonance:

Additional Inherited Members

3.14.1 Detailed Description

Class describes complex amplitude of a three-body decay through an intermediate resonance.

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

- src/dalitzresonance.h
- src/dalitzresonance.cpp

3.15 DrawBDParams Class Reference

Public Member Functions

- void **DrawBinsmABmAC** (const string &infile, const string &outname)
- void **DrawBinsmABmBC** (const string &infile, const string &outname)
- void **DrawBinsmACmBC** (const string &infile, const string &outname)
- void **DrawBDP** (const string &infile, const string &outname, const int type)
- void **DrawCS** (const vector< double > &C, const vector< double > &S, const string &fname)
- void **DrawK** (const vector< double > &K, const vector< double > &Kb, const string &fname)
- void **SetCSRef** (vector< double > &C, vector< double > &S)
- void **SetKRef** (vector< double > &K, vector< double > &Kb)
- void **RemoveCSRef** (void)
- void **RemoveKRef** (void)

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

- src/drawbdparams.h
- src/drawbdparams.cpp

3.16 EvtComplex Class Reference

Public Member Functions

- **EvtComplex** (double rpart, double ipart=0.0)
- **EvtComplex** (const [EvtComplex](#) &c)
- [EvtComplex](#) & **operator*=** (double d)
- [EvtComplex](#) & **operator/=** (double d)
- [EvtComplex](#) & **operator*=** ([EvtComplex](#) c)
- [EvtComplex](#) & **operator/=** ([EvtComplex](#) c)
- [EvtComplex](#) & **operator=** (const [EvtComplex](#) &c)
- [EvtComplex](#) & **operator+=** (const [EvtComplex](#) &c)
- [EvtComplex](#) & **operator-=** (const [EvtComplex](#) &c)
- [EvtComplex](#) & **operator+=** (double d)
- [EvtComplex](#) & **operator-=** (double d)
- int **operator==** (const [EvtComplex](#) c)
- int **operator!=** (const [EvtComplex](#) c)
- [EvtComplex](#) **conj** (void) const

Friends

- [EvtComplex](#) **operator*** (double d, const [EvtComplex](#) &c)
- [EvtComplex](#) **operator*** (const [EvtComplex](#) &c, double d)
- [EvtComplex](#) **operator/** (const [EvtComplex](#) &c, double d)
- [EvtComplex](#) **operator/** (double d, const [EvtComplex](#) &c)
- [EvtComplex](#) **operator*** (const [EvtComplex](#) &c1, const [EvtComplex](#) &c2)
- [EvtComplex](#) **operator/** (const [EvtComplex](#) &c1, const [EvtComplex](#) &c2)
- [EvtComplex](#) **operator+** (const [EvtComplex](#) &c1, const [EvtComplex](#) &c2)
- [EvtComplex](#) **operator-** (const [EvtComplex](#) &c1, const [EvtComplex](#) &c2)
- [EvtComplex](#) **operator-** (const [EvtComplex](#) &c)
- double **abs** (const [EvtComplex](#) &c)
- double **abs2** (const [EvtComplex](#) &c)
- double **arg** (const [EvtComplex](#) &c)
- double **real** (const [EvtComplex](#) &c)
- double **imag** (const [EvtComplex](#) &c)
- [EvtComplex](#) **exp** (const [EvtComplex](#) &c)
- std::ostream & **operator<<** (std::ostream &s, const [EvtComplex](#) &c)

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

- src/EvtComplex.h
- src/EvtComplex.cpp

3.17 EvtConst Class Reference

Static Public Attributes

- static const double **pi** = 3.141592653589793238
- static const double **twoPi** = 2*pi
- static const double **radToDegrees** = 180./pi
- static const double **c** = 2.99792458E11

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

- src/EvtConst.h
- src/EvtConst.cpp

3.18 EvtResonance2 Class Reference

Public Member Functions

- [EvtResonance2](#) & **operator=** (const [EvtResonance2](#) &)
- **EvtResonance2** (const [EvtVector4R](#) &p4_p, const [EvtVector4R](#) &p4_d1, const [EvtVector4R](#) &p4_d2, double ampl=0.0, double theta=0.0, double gamma=0.0, double bwm=0.0, int spin=0)
- const [EvtVector4R](#) & **p4_p** () const
- const [EvtVector4R](#) & **p4_d1** () const
- const [EvtVector4R](#) & **p4_d2** () const
- double **amplitude** () const
- double **theta** () const
- double **gamma** () const
- double **bwm** () const
- int **spin** () const
- void **SetGamma** (const double &a)
- void **SetMass** (const double &a)
- void **SetAmp** (const double &a)
- void **SetTheta** (const double &a)
- void **SetMomenta** (const [EvtVector4R](#) &p4_p, const [EvtVector4R](#) &p4_d1, const [EvtVector4R](#) &p4_d2)
- [EvtComplex](#) **resAmpl** ()

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

- src/EvtResonance2.h
- src/EvtResonance2.cpp

3.19 EvtTensor4C Class Reference

Public Member Functions

- **EvtTensor4C** (double t00, double t11, double t22, double t33)
- **EvtTensor4C** (const [EvtTensor4C](#) &t1)
- [EvtTensor4C](#) & **operator=** (const [EvtTensor4C](#) &t1)
- [EvtTensor4C](#) & **operator*=** (const [EvtComplex](#) &c)
- [EvtTensor4C](#) & **operator*=** (double d)
- [EvtTensor4C](#) & **addDirProd** (const [EvtVector4R](#) &p1, const [EvtVector4R](#) &p2)
- void **set** (int i, int j, const [EvtComplex](#) &c)
- void **setdiag** (double t00, double t11, double t22, double t33)
- const [EvtComplex](#) & **get** (int i, int j) const
- [EvtComplex](#) **trace** () const
- void **zero** ()
- void **applyRotateEuler** (double alpha, double beta, double gamma)
- void **applyBoostTo** (const [EvtVector4R](#) &p4)
- void **applyBoostTo** (const [EvtVector3R](#) &boost)
- [EvtTensor4C](#) & **operator+=** (const [EvtTensor4C](#) &t2)
- [EvtTensor4C](#) & **operator-=** (const [EvtTensor4C](#) &t2)
- [EvtTensor4C](#) **conj** () const
- [EvtVector4C](#) **cont1** (const [EvtVector4C](#) &v4) const
- [EvtVector4C](#) **cont2** (const [EvtVector4C](#) &v4) const
- [EvtVector4C](#) **cont1** (const [EvtVector4R](#) &v4) const
- [EvtVector4C](#) **cont2** (const [EvtVector4R](#) &v4) const

Static Public Member Functions

- static const [EvtTensor4C](#) & **g** ()

Friends

- [EvtTensor4C](#) **rotateEuler** (const [EvtTensor4C](#) &e, double alpha, double beta, double gamma)
- [EvtTensor4C](#) **boostTo** (const [EvtTensor4C](#) &e, const [EvtVector4R](#) p4)
- [EvtTensor4C](#) **boostTo** (const [EvtTensor4C](#) &e, const [EvtVector3R](#) boost)
- [EvtTensor4C](#) **directProd** (const [EvtVector4C](#) &c1, const [EvtVector4C](#) &c2)
- [EvtTensor4C](#) **directProd** (const [EvtVector4C](#) &c1, const [EvtVector4R](#) &c2)
- [EvtTensor4C](#) **directProd** (const [EvtVector4R](#) &c1, const [EvtVector4R](#) &c2)
- [EvtTensor4C](#) **dual** (const [EvtTensor4C](#) &t2)
- [EvtTensor4C](#) **conj** (const [EvtTensor4C](#) &t2)
- [EvtTensor4C](#) **cont22** (const [EvtTensor4C](#) &t1, const [EvtTensor4C](#) &t2)
- [EvtTensor4C](#) **cont11** (const [EvtTensor4C](#) &t1, const [EvtTensor4C](#) &t2)
- [EvtTensor4C](#) **operator*** (const [EvtTensor4C](#) &t1, const [EvtComplex](#) &c)
- [EvtTensor4C](#) **operator*** (const [EvtComplex](#) &c, const [EvtTensor4C](#) &t1)
- [EvtTensor4C](#) **operator*** (const [EvtTensor4C](#) &t1, double d)
- [EvtTensor4C](#) **operator*** (double d, const [EvtTensor4C](#) &t1)
- [EvtComplex](#) **cont** (const [EvtTensor4C](#) &t1, const [EvtTensor4C](#) &t2)
- [EvtTensor4C](#) **operator+** (const [EvtTensor4C](#) &t1, const [EvtTensor4C](#) &t2)
- [EvtTensor4C](#) **operator-** (const [EvtTensor4C](#) &t1, const [EvtTensor4C](#) &t2)
- std::ostream & **operator<<** (std::ostream &s, const [EvtTensor4C](#) &t)

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

- src/EvtTensor4C.h
- src/EvtTensor4C.cpp

3.20 EvtVector3C Class Reference

Public Member Functions

- **EvtVector3C** (const [EvtComplex](#) &, const [EvtComplex](#) &, const [EvtComplex](#) &)
- void **set** (const int, const [EvtComplex](#) &)
- void **set** (const [EvtComplex](#) &, const [EvtComplex](#) &, const [EvtComplex](#) &)
- void **set** (double, double, double)
- [EvtVector3C](#) & **operator*=** (const [EvtComplex](#) &c)
- [EvtVector3C](#) & **operator/=** (const [EvtComplex](#) &c)
- [EvtVector3C](#) & **operator+=** (const [EvtVector3C](#) &v2)
- [EvtVector3C](#) & **operator-=** (const [EvtVector3C](#) &v2)
- **EvtVector3C** (const [EvtVector3R](#) &v1)
- void **applyRotateEuler** (double phi, double theta, double ksi)
- const [EvtComplex](#) & **get** (int) const
- [EvtVector3C](#) **conj** () const
- [EvtVector3C](#) **cross** (const [EvtVector3C](#) &v2)
- double **dot** (const [EvtVector3C](#) &p2)

Friends

- [EvtVector3C](#) **rotateEuler** (const [EvtVector3C](#) &v, double phi, double theta, double ksi)
- [EvtVector3C](#) **operator*** (const [EvtComplex](#) &c, const [EvtVector3C](#) &v2)
- [EvtVector3C](#) **operator*** (const [EvtComplex](#) &c, const [EvtVector3R](#) &v2)
- [EvtComplex](#) **operator*** (const [EvtVector3R](#) &v1, const [EvtVector3C](#) &v2)
- [EvtComplex](#) **operator*** (const [EvtVector3C](#) &v1, const [EvtVector3R](#) &v2)
- [EvtComplex](#) **operator*** (const [EvtVector3C](#) &v1, const [EvtVector3C](#) &v2)
- [EvtVector3C](#) **operator+** (const [EvtVector3C](#) &v1, const [EvtVector3C](#) &v2)
- [EvtVector3C](#) **operator-** (const [EvtVector3C](#) &v1, const [EvtVector3C](#) &v2)
- [EvtVector3C](#) **operator*** (const [EvtVector3C](#) &v1, const [EvtComplex](#) &c)
- std::ostream & **operator<<** (std::ostream &c, const [EvtVector3C](#) &v)

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

- src/EvtVector3C.h
- src/EvtVector3C.cpp

3.21 EvtVector3R Class Reference

Public Member Functions

- **EvtVector3R** (double x, double y, double z)
- [EvtVector3R](#) & **operator*=** (const double c)
- [EvtVector3R](#) & **operator/=** (const double c)
- [EvtVector3R](#) & **operator+=** (const [EvtVector3R](#) &v2)
- [EvtVector3R](#) & **operator-=** (const [EvtVector3R](#) &v2)
- void **set** (int i, double d)
- void **set** (double x, double y, double z)
- void **applyRotateEuler** (double phi, double theta, double ksi)
- double **get** (int i) const
- double **dot** (const [EvtVector3R](#) &v2)
- double **d3mag** () const

Friends

- [EvtVector3R](#) **rotateEuler** (const [EvtVector3R](#) &v, double phi, double theta, double ksi)
- [EvtVector3R](#) **operator*** (double c, const [EvtVector3R](#) &v2)
- double **operator*** (const [EvtVector3R](#) &v1, const [EvtVector3R](#) &v2)
- [EvtVector3R](#) **operator+** (const [EvtVector3R](#) &v1, const [EvtVector3R](#) &v2)
- [EvtVector3R](#) **operator-** (const [EvtVector3R](#) &v1, const [EvtVector3R](#) &v2)
- [EvtVector3R](#) **operator*** (const [EvtVector3R](#) &v1, double c)
- [EvtVector3R](#) **operator/** (const [EvtVector3R](#) &v1, double c)
- [EvtVector3R](#) **cross** (const [EvtVector3R](#) &v1, const [EvtVector3R](#) &v2)
- std::ostream & **operator<<** (std::ostream &s, const [EvtVector3R](#) &v)

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

- src/EvtVector3R.h
- src/EvtVector3R.cpp

3.22 EvtVector4C Class Reference

Public Member Functions

- **EvtVector4C** (const [EvtComplex](#) &, const [EvtComplex](#) &, const [EvtComplex](#) &, const [EvtComplex](#) &)
- void **set** (int, const [EvtComplex](#) &)
- void **set** (const [EvtComplex](#) &, const [EvtComplex](#) &, const [EvtComplex](#) &, const [EvtComplex](#) &)
- void **set** (double, double, double, double)
- **EvtVector4C** (const [EvtVector4R](#) &v1)
- const [EvtComplex](#) & **get** (int) const
- [EvtComplex](#) **cont** (const [EvtVector4C](#) &v4) const
- [EvtVector4C](#) **conj** () const
- [EvtVector3C](#) **vec** () const
- [EvtVector4C](#) & **operator=** (const [EvtVector4C](#) &v2)
- [EvtVector4C](#) & **operator=** (const [EvtVector4C](#) &v2)
- [EvtVector4C](#) & **operator+=** (const [EvtVector4C](#) &v2)
- [EvtVector4C](#) & **operator*=** (const [EvtComplex](#) &c)
- void **applyRotateEuler** (double alpha, double beta, double gamma)
- void **applyBoostTo** (const [EvtVector4R](#) &p4)
- void **applyBoostTo** (const [EvtVector3R](#) &boost)
- double **dot** (const [EvtVector4C](#) &p2)

Friends

- [EvtVector4C](#) **rotateEuler** (const [EvtVector4C](#) &e, double alpha, double beta, double gamma)
- [EvtVector4C](#) **boostTo** (const [EvtVector4C](#) &e, const [EvtVector4R](#) p4)
- [EvtVector4C](#) **boostTo** (const [EvtVector4C](#) &e, const [EvtVector3R](#) boost)
- [EvtVector4C](#) **operator*** (double d, const [EvtVector4C](#) &v2)
- [EvtVector4C](#) **operator*** (const [EvtComplex](#) &c, const [EvtVector4C](#) &v2)
- [EvtVector4C](#) **operator*** (const [EvtVector4C](#) &v2, const [EvtComplex](#) &c)
- [EvtVector4C](#) **operator*** (const [EvtComplex](#) &c, const [EvtVector4R](#) &v2)
- [EvtComplex](#) **operator*** (const [EvtVector4R](#) &v1, const [EvtVector4C](#) &v2)
- [EvtComplex](#) **operator*** (const [EvtVector4C](#) &v1, const [EvtVector4R](#) &v2)
- [EvtComplex](#) **operator*** (const [EvtVector4C](#) &v1, const [EvtVector4C](#) &v2)
- [EvtVector4C](#) **operator+** (const [EvtVector4C](#) &v1, const [EvtVector4C](#) &v2)
- [EvtVector4C](#) **operator-** (const [EvtVector4C](#) &v1, const [EvtVector4C](#) &v2)
- std::ostream & **operator<<** (std::ostream &s, const [EvtVector4C](#) &v)

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

- src/EvtVector4C.h
- src/EvtVector4C.cpp

3.23 EvtVector4R Class Reference

Public Member Functions

- **EvtVector4R** (const double &e, const double &p1, const double &p2, const double &p3)
- void **set** (int i, double d)
- void **set** (double e, double px, double py, double pz)
- [EvtVector4R](#) & **operator*=** (double c)
- [EvtVector4R](#) & **operator/=** (double c)
- [EvtVector4R](#) & **operator=** (const [EvtVector4R](#) &v2)

- [EvtVector4R](#) & **operator+=** (const [EvtVector4R](#) &v2)
- [EvtVector4R](#) & **operator-=** (const [EvtVector4R](#) &v2)
- double **get** (int i) const
- double **cont** (const [EvtVector4R](#) &v4) const
- double **mass2** () const
- double **mass** () const
- void **applyRotateEuler** (const double &alpha, const double &beta, const double &gamma)
- void **applyBoostTo** (const [EvtVector4R](#) &p4)
- void **applyBoostTo** (const [EvtVector3R](#) &boost)
- double **px** (void) const
- double **py** (void) const
- double **pz** (void) const
- double **e** (void) const
- void **px** (const double &x)
- void **py** (const double &x)
- void **pz** (const double &x)
- void **e** (const double &x)
- [EvtVector4R](#) **cross** (const [EvtVector4R](#) &v2) const
- double **dot** (const [EvtVector4R](#) &v2) const
- double **d3mag** () const

Friends

- [EvtVector4R](#) **rotateEuler** (const [EvtVector4R](#) &rs, const double &alpha, const double &beta, const double &gamma)
- [EvtVector4R](#) **boostTo** (const [EvtVector4R](#) &rs, const [EvtVector4R](#) &p4)
- [EvtVector4R](#) **boostTo** (const [EvtVector4R](#) &rs, const [EvtVector3R](#) &boost)
- [EvtVector4R](#) **operator*** (double d, const [EvtVector4R](#) &v2)
- [EvtVector4R](#) **operator*** (const [EvtVector4R](#) &v2, double d)
- [EvtVector4R](#) **operator/** (const [EvtVector4R](#) &v2, double d)
- double **operator*** (const [EvtVector4R](#) &v1, const [EvtVector4R](#) &v2)
- [EvtVector4R](#) **operator+** (const [EvtVector4R](#) &v1, const [EvtVector4R](#) &v2)
- [EvtVector4R](#) **operator-** (const [EvtVector4R](#) &v1, const [EvtVector4R](#) &v2)
- std::ostream & **operator<<** (std::ostream &s, const [EvtVector4R](#) &v)

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

- src/EvtVector4R.h
- src/EvtVector4R.cpp

3.24 FlatteWidth Class Reference

Inheritance diagram for FlatteWidth:

Collaboration diagram for FlatteWidth:

Public Member Functions

- **FlatteWidth** (const double &m)
- double **operator()** (const double &s, const double &p) const

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

- src/flattewidth.h
- src/flattewidth.cpp

3.25 FormFactor Class Reference

Inheritance diagram for FormFactor:

Public Member Functions

- **FormFactor** (const double &r, const double &p0)
- virtual double **operator()** (const double &p) const =0
- double **r** (void) const
- double **p0** (void) const

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

- src/formfactor.h
- src/formfactor.cpp

3.26 GounarisSakurai Class Reference

Inheritance diagram for GounarisSakurai:

Collaboration diagram for GounarisSakurai:

Public Member Functions

- **GounarisSakurai** (const double &G0, const double &m, const double &p0, const bool constwidth=false)
- **EvtComplex operator()** (const double &s, const double &p) const

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

- src/gounarissakurai.h
- src/gounarissakurai.cpp

3.27 GSWidth Class Reference

Inheritance diagram for GSWidth:

Collaboration diagram for GSWidth:

Public Member Functions

- **GSWidth** (const double &G0, const double &m, const double &p0)
- double **operator()** (const double &s, const double &p) const

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

- src/gswidth.h
- src/gswidth.cpp

3.28 KspipiModel Class Reference

Inheritance diagram for KspipiModel:

Collaboration diagram for KspipiModel:

Public Member Functions

- **KspipiModel** (const double &, const double &, const double &)
- **EvtComplex Amp** (const [EvtVector4R](#) &p4_p, const [EvtVector4R](#) &moms1, const [EvtVector4R](#) &moms2, const [EvtVector4R](#) &moms3)

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

- src/kspipimodel.h
- src/kspipimodel.cpp

3.29 ModelIntegral Class Reference

Public Member Functions

- **ModelIntegral** ([SymDalitzModel](#) *model)
- void **SetGridSize** (const int gsize)
- void **SetNBins** (const int nbins)
- double **Calculate** (const std::string &label, std::vector< double > &C, std::vector< double > &S, std::vector< double > &K, std::vector< double > &Kb)

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

- src/modelintegral.h
- src/modelintegral.cpp

3.30 RandomDalitzPoint Class Reference

Inheritance diagram for RandomDalitzPoint:

Collaboration diagram for RandomDalitzPoint:

Public Member Functions

- **RandomDalitzPoint** (const [DalitzPhaseSpace](#) &phsp)
- **RandomDalitzPoint** (const double &m_{mm}, const double &m_{ca}, const double &m_{cb}, const double &m_{cc})
- void **GetPoint** (double &m_{AB}, double &m_{AC})
- void **SetSeed** (const int seed)
- unsigned **GetSeed** (void) const

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

- src/randomdalitzpoint.h
- src/randomdalitzpoint.cpp

3.31 RelBreitWigner Class Reference

Inheritance diagram for RelBreitWigner:

Collaboration diagram for RelBreitWigner:

Public Member Functions

- **RelBreitWigner** (const double &G0, const double &m, const double &p0, const int mom, const bool const-width=false)
- **EvtComplex operator()** (const double &s, const double &p) const

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

- src/relbreitwigner.h
- src/relbreitwigner.cpp

3.32 ResDecayAngularDistribution Class Reference

```
#include <resdecayangulardistribution.h>
```

Public Member Functions

- **ResDecayAngularDistribution** (const int spin, const double &m0, const double &mca, const double &mcb, const double &mcc, const double &mres)
- double **operator()** (const double &ACsq, const double &BCsq, const double &ABsq=0)
- void **Set_mR** (const double &mr)

3.32.1 Detailed Description

Class for computation of angular pdf for intermediate resonance decay in a three-body decay. Final state particles are assumed to be scalars. Resonance may be scalar, vector or tensor.

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

- src/resdecayangulardistribution.h
- src/resdecayangulardistribution.cpp

3.33 RhoOmegaPropagator Class Reference

Inheritance diagram for RhoOmegaPropagator:

Collaboration diagram for RhoOmegaPropagator:

Public Member Functions

- **RhoOmegaPropagator** (const double &a, const double &theta)
- **EvtComplex operator()** (const double &s, const double &p) const

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

- src/rhoomegapropagator.h
- src/rhoomegapropagator.cpp

3.34 SymDalitzModel Class Reference

Inheritance diagram for SymDalitzModel:

Collaboration diagram for SymDalitzModel:

Public Member Functions

- **SymDalitzModel** (const double &m₀, const double &m_{ch_a}, const double &m_{ch_b}, const double &del_{min}, const double &del_{max})
- double **delta** (const double &mp, const double &mm)
- void **PPbarDelta** (const double &mp, const double &mm, double &P, double &P_{bar}, double &delta)
- int **GetBin** (const double &mp, const double &mm)
- void **SetNBins** (const int nb)
- int **GetNBins** (void) const

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

- src/symdalitzmodel.h
- src/symdalitzmodel.cpp

3.35 VirtualDstarPropagator Class Reference

Inheritance diagram for VirtualDstarPropagator:

Collaboration diagram for VirtualDstarPropagator:

Public Member Functions

- **VirtualDstarPropagator** (const double &beta₁, const double &beta₂)
- **EvtComplex operator()** (const double &s, const double &p=0) const

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

- src/virtualdstarpropagator.h
- src/virtualdstarpropagator.cpp

3.36 VirtualResFF Class Reference

Inheritance diagram for VirtualResFF:

Collaboration diagram for VirtualResFF:

Public Member Functions

- **VirtualResFF** (const double &_r, const double &_p0)
- double **operator()** (const double &p) const

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

- src/virtualresff.h
- src/virtualresff.cpp

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