Ode

+ Ode(const Reader&)
Ode(double,const DynamicTensor&,const std::string&,std::shared_ptr<const Function>,std::shared_ptr<const Function>,std::shared_ptr<RootFinder>)
Ode(double,const double&,const std::string&,std::shared_ptr<const Function>,std::shared_ptr<const Function>,std::shared_ptr<RootFinder>)
Ode(const Ode&)
Ode(const OdeRawData&)
+ virtual ~Ode()

+ void SetName(const std::string&)
+ double GetTimeIn()
+ Ode& operator=(const Ode&)
+ void SetY0(double)
+ void SetY0(const DynamicTensor&)
+ const Function& GetFunction()
+ const std::shared_ptr<RootFinder>& GetRootFinder()
+ DynamicTensor Evaluate(double,const DynamicTensor&)
+ void SetRootFinder(std::shared_ptr<RootFinder>)
+ const std::string& GetName()
+ DynamicTensor Grad(double,const DynamicTensor&)
+ void SetT0(double)
+ void SetFunction(std::shared_ptr<const Function>)
+ const DynamicTensor& GetCondIn()

- double t0_
- DynamicTensor y0_
- std::string name_
- std::shared_ptr<RootFinder> root_finder_
- std::shared_ptr<constFunction> func_

OdeRawData

+ OdeRawData()
OdeRawData(const OdeRawData&)
+ ~OdeRawData()

+ OdeRawData& operator=(const OdeRawData&)

+ DynamicTensor y0
+ FunctionParams function_params
+ TimeParams time_params
+ SolverParams solver_params
+ std::shared_ptr<RootFinder> root_finder
+ std::shared_ptr<constFunction> function

TimeParams

+ struct time_params
+ double t0
+ double t_final
+ double step_size
+ size_t number_of_steps

SolverParams

+ size_t max_iterations
+ double tolerance

function_params

+ std::vector<std::string> function_expressions
+ std::vector<size_t> function_shape
+ std::vector<std::string> derivative_expressions
+ std::vector<size_t> derivative_shape