Class R1R1Function

Members
(no member)

Methods
▪ R1R1Function () ▪ virtual double operator()(double x) = 0

Class VanillaTerminalCondition : public R1R1Function

Members
➢ protected ▪ double Strike

Methods
▪ VanillaTerminalCondition (double strike)

Class R2R1Function

Members	Methods
(no member)	- R2R1Function () - virtual double operator()(double x, double t) = 0

Class NullFunction : public R2R1Function

Members	Methods
(no member)	- NullFunction () - double operator()(double x, double t) = 0

Class CallTerminalCondition : public VanillaTerminalCondition

Members	Methods
(no member)	- CallTerminalCondition (double strike) - double operator()(double x)

Class PutTerminalCondition : public VanillaTerminalCondition

Members	Methods
(no member)	- PutTerminalCondition (double strike) - double operator()(double x)

Class CallTopBoundary : public R1R1Function

Members
➢ private
▪ double Smax
▪ double Strike

Methods
▪ CallTopBoundary (double sMax , double strike)
▪ double operator() (double t)

Class PutTopBoundary : public R1R1Function

Members
➢ private
▪ double Smax
▪ double Strike

Methods
▪ PutTopBoundary (double sMax , double strike)
▪ double operator() (double t)

Class CallBottomBoundary : public R1R1Function

Members
➤ private
▪ double Smin
▪ double Strike

Methods
▪ CallTopBoundary (double sMin , double strike)
▪ double operator() (double t)

Class PutBottomBoundary : public R1R1Function

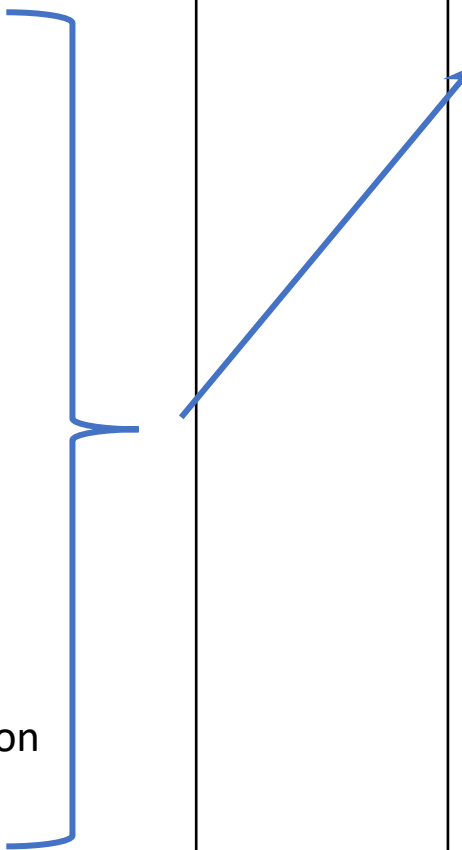| Members |
|---|
| ➤ private |
| ▪ double Smin |
| ▪ double Strike |

Methods
▪ PutBottomBoundary (double sMax , double strike)
▪ double operator() (double t)

class BSActualization : public R2R1Function	
Members	**Methods**
➤ private ▪ double Rate	▪ BSActualization (double rate) ▪ double operator() (double x , double t)
class BSVariance : public R2R1Function	
Members	**Methods**
➤ private ▪ double Sigma	▪ BSVariance (double sigma) ▪ double operator() (double x , double t)
class BSTrend : public R2R1Function	
Members	**Methods**
➤ private ▪ double Rate	▪ BSTrend (double rate) ▪ double operator() (double x , double t)

Class PDEGrid2D

Members
➢ protected
▪ double T
▪ double MinX
▪ double MaxX
▪ double h0
▪ double h1
▪ R2R1Function * a
▪ R2R1Function * b
▪ R2R1Function * r
▪ R2R1Function * f
▪ R1R1Function * TopBoundaryFunction
▪ R1R1Function * BottomBoundaryFunction
▪ R1R1Function * RightBoundaryFunction
▪ vector < vector <double> > Nodes
▪ size_t NodesHeight
▪ size_t NodesWidth

Methods
➢ public
▪ PDEGrid2D ([parameters])
▪ virtual void FillNodes ( )
▪ double GetValue (double time, double spot)
➢ Private
▪ void FillTopAndBottomBoundary ( )
▪ void FillRightBoundary ( )

Class PDEGridExplicit : public PDEGrid2D

Members	Methods
(no member)	➢ public ▪ PDEGridExplicit ([parameters]) ▪ void FillNodes ( )

Class PDEGridImplicit : public PDEGrid2D

Members	Methods
(no member)	➢ public ▪ PDEGridImplicit ([parameters]) ▪ void FillNodes ( )

Class PDEGridTheta : public PDEGrid2D

Members	Methods
➢ Private ▪ double Theta	➢ public ▪ PDEGridExplicit ([parameters] , double theta) ▪ void FillNodes ( )