

SobolBrownianGenerator(3)

QuantLib

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NAME

SobolBrownianGenerator – Sobol Brownian generator for market-model simulations.

SYNOPSIS

```
#include
<ql/models/marketmodels/browniangenerators/sobolbrowniangenerator.hpp>
Inherits BrownianGenerator.
```

Public Types

```
enum Ordering { Factors, Steps, Diagonal }
```

Public Member Functions

```
SobolBrownianGenerator (Size factors, Size steps, Ordering ordering, unsigned long seed=0,
                      SobolRsg::DirectionIntegers directionIntegers=SobolRsg::Jaeckel)
Real nextPath ()
Real nextStep (std::vector< Real > &)
Size numberOfFactors () const
Size numberOfSteps () const
const std::vector< std::vector< Size > > & orderedIndices () const
std::vector< std::vector< Real > > transform (const std::vector< std::vector< Real > > & variates)
```

Detailed Description

Sobol Brownian generator for market-model simulations.

Incremental Brownian generator using a Sobol generator, inverse-cumulative Gaussian method, and Brownian bridging.

Member Enumeration Documentation**enum Ordering****Enumerator**

Factors The variates with the best quality will be used for the evolution of the first factor.

Steps The variates with the best quality will be used for the largest steps of all factors.

Diagonal

A diagonal schema will be used to assign the variates with the best quality to the most important factors and the largest steps.

Author

Generated automatically by Doxygen for QuantLib from the source code.

