

## NAME

FaureRsg – Faure low-discrepancy sequence generator.

## SYNOPSIS

```
#include <ql/math/randomnumbers/faurersg.hpp>
```

### Public Types

```
typedef Sample< std::vector< Real > > sample_type
```

### Public Member Functions

```
FaureRsg (Size dimensionality)
const std::vector< long int > & nextIntSequence () const
const std::vector< long int > & lastIntSequence () const
const sample_type & nextSequence () const
const sample_type & lastSequence () const
Size dimension () const
```

## Detailed Description

Faure low-discrepancy sequence generator.

It is based on existing Fortran and C algorithms to calculate pascal matrix and gray transforms.

1. E. Thiernard Economic generation of low-discrepancy sequences with a b-ary gray code.
2. Algorithms 659, 647. <http://www.netlib.org/toms/647>, <http://www.netlib.org/toms/659>

### Tests

the correctness of the returned values is tested by reproducing known good values.

### Author

Generated automatically by Doxygen for QuantLib from the source code.

