Gauss-Legendre Rule

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Contents

1 Namespace Index **1**

1.1 Namespace List 1

2 Class Index **3**

2.1 Class List 3

3 File Index **5**

3.1 File List 5

4 Namespace Documentation **7**

4.1 GaussLegendre Namespace Reference 7

5 Class Documentation **9**

5.1 GaussLegendre::NotComputed Class Reference 9

5.1.1 Detailed Description 9

5.1.2 Constructor & Destructor Documentation 9

5.1.2.1 NotComputed 9

5.1.3 Member Function Documentation 9

5.1.3.1 getGaussLegendrePoint 9

5.2 GaussLegendre::PreComputed Class Reference 9

5.2.1 Detailed Description 9

5.2.2 Constructor & Destructor Documentation 10

5.2.2.1 PreComputed 10

5.2.3 Member Function Documentation 10

5.2.3.1 getGaussLegendrePoint 10

6 File Documentation **11**

6.1 src/GaussLegendreRule.cpp File Reference 11

Index **12**

Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

GaussLegendre 7

Chapter 2

Class Index

2.1 Class List

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

GaussLegendre::NotComputed 9
GaussLegendre::PreComputed 9

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

src/GaussLegendreRule.cpp 11

Chapter 4

Namespace Documentation

4.1 GaussLegendre Namespace Reference

Classes

- class PreComputed
- class NotComputed

Chapter 5

Class Documentation

5.1 GaussLegendre::NotComputed Class Reference

Public Member Functions

- NotComputed (int n)
- GaussLegendrePoint getGaussLegendrePoint ()

5.1.1 Detailed Description

Purpose: Calculates the nodes and weights for a Gauss-Legendre quadrature rule for any (reasonable) order n.

5.1.2 Constructor & Destructor Documentation

5.1.2.1 GaussLegendre::NotComputed::NotComputed (int *n*)

5.1.3 Member Function Documentation

5.1.3.1 GaussLegendrePoint GaussLegendre::NotComputed::getGaussLegendrePoint ( )

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

- src/GaussLegendreRule.cpp

5.2 GaussLegendre::PreComputed Class Reference

Public Member Functions

- PreComputed (int n)
- GaussLegendrePoint getGaussLegendrePoint ()

5.2.1 Detailed Description

Purpose: Contains pre-computed n-point Gauss-Legendre Quadrature nodes/weights over the interval (-1,1).

5.2.2 Constructor & Destructor Documentation

5.2.2.1 GaussLegendre::PreComputed::PreComputed (int *n*)

5.2.3 Member Function Documentation

5.2.3.1 GaussLegendrePoint GaussLegendre::PreComputed::getGaussLegendrePoint ( )

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

- src/GaussLegendreRule.cpp

Chapter 6

File Documentation

6.1 src/GaussLegendreRule.cpp File Reference

```
#include <map>
#include <cmath>
#include <limits>
#include <string>
#include "GaussLegendreRule.hpp"
```

Classes

- class GaussLegendre::PreComputed
- class GaussLegendre::NotComputed

Namespaces

- GaussLegendre

Index

GaussLegendre, 7
GaussLegendre::NotComputed, 9
    getGaussLegendrePoint, 9
    NotComputed, 9
GaussLegendre::PreComputed, 9
    getGaussLegendrePoint, 10
    PreComputed, 10
getGaussLegendrePoint
    GaussLegendre::NotComputed, 9
    GaussLegendre::PreComputed, 10

NotComputed
    GaussLegendre::NotComputed, 9

PreComputed
    GaussLegendre::PreComputed, 10

src/GaussLegendreRule.cpp, 11