

ADI for Reaction-Diffusion Systems

Generated by Doxygen 1.8.6

Wed Apr 22 2015 14:55:49

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Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

TriDiagMatrixSolver	5
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Chapter 2

Class Index

2.1 Class List

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

Diffusion	7
TriDiagMatrix	7

Chapter 3

Namespace Documentation

3.1 TriDiagMatrixSolver Namespace Reference

Functions

- void [solve](#) (const [TriDiagMatrix](#) &mat, const std::vector< double > &rhs, std::vector< double > &result)

3.1.1 Detailed Description

Solver for a tridiagonal matrix system.

3.1.2 Function Documentation

3.1.2.1 void TriDiagMatrixSolver::solve (const TriDiagMatrix & *mat*, const std::vector< double > & *rhs*, std::vector< double > & *result*)

Solve a tridiagonal matrix system.

Parameters

<i>mat</i>	tridiagonal matrix
<i>rhs</i>	right-hand side of the system
<i>result</i>	data structure for the result of the solver.

Chapter 4

Class Documentation

4.1 Diffusion Class Reference

Public Member Functions

- void **run** ()

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

- diffusion.hpp

4.2 TriDiagMatrix Class Reference

Public Member Functions

- [TriDiagMatrix](#) (int *n*, double *l*, double *m*, double *u*)
- int **size** () const
- std::vector< double > **getL** () const
- std::vector< double > **getM** () const
- std::vector< double > **getU** () const

4.2.1 Constructor & Destructor Documentation

4.2.1.1 TriDiagMatrix::TriDiagMatrix (int *n*, double *l*, double *m*, double *u*)

Construct an object of the type [TriDiagMatrix](#)

Parameters

<i>n</i>	size of the matrix
<i>l</i>	value on the lower diagonal
<i>m</i>	value on the middle diagonal
<i>u</i>	value on the upper diagonal

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

- tridiagmatrix.hpp
- tridiagmatrix.cpp

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