2 pages 1

```
Help
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion <</pre>
     (2008+2) //The "#else" part of the code will be freely av
    ailable after the (year of creation of this file + 2)
#include "fd operators.h"
// Operators aliases to make code more readable
// Inclusion is totally optional
// Mask
#define UNIFORM SECOND SPATIAL DERIVATIVE CENTERED MASK(jam
 FDOPERATORJAM_SDSUC_SET_MASK(jam,i)
#define MIXED SECOND SPATIAL DERIVATIVE CENTERED MASK(jam,
    i1,i2) {
  FDOPERATORJAM_SDSMC_SET_MASK(jam,i1,i2)
#define MIXED SECOND SPATIAL DERIVATIVE CENTERED BOUCHUT
    MASK(jam, i1, i2) {
  FDOPERATORJAM_SDSMCB_SET_MASK(jam,i1,i2)
#define FIRST SPATIAL DERIVATIVE UPWIND MASK(jam,i) {
  FDOPERATORJAM SDFU SET MASK(jam,i)
#define FIRST SPATIAL DERIVATIVE CENTERED MASK(jam,i) {
  FDOPERATORJAM SDFC SET MASK(jam,i)
#define FIRST SPATIAL DERIVATIVE FORWARD MASK(jam,i) {
  FIRST SPATIAL DERIVATIVE UPWIND MASK(jam,i)
#define FIRST_TIME_DERIVATIVE_FORWARD_MASK(jam) {
  FDOPERATORJAM TDFF SET MASK(jam)
#define ZERO_ORDER_MASK(jam) FDOPERATORJAM_ZO_SET_MASK(jam)
// Value
#define UNIFORM_SECOND_SPATIAL_DERIVATIVE_CENTERED_SET(jam,
    i,v) {
```

2 pages 2

```
FDOPERATORJAM SDSUC SET VALUE(jam,i,v)
#define MIXED_SECOND_SPATIAL_DERIVATIVE_CENTERED_SET(jam,i1
    ,i2,v) {
 FDOPERATORJAM SDSMC SET VALUE(jam,i1,i2,v)
#define MIXED_SECOND_SPATIAL_DERIVATIVE_CENTERED_BOUCHUT_SE
    T(jam, i1, i2, v) {
  FDOPERATORJAM_SDSMCB_SET_VALUE(jam,i1,i2,v)
#define FIRST_SPATIAL_DERIVATIVE_UPWIND_SET(jam,i,v) {
  FDOPERATORJAM SDFU SET VALUE(jam,i,v)
#define FIRST_SPATIAL_DERIVATIVE_CENTERED_SET(jam,i,v) {
  FDOPERATORJAM_SDFC_SET_VALUE(jam,i,v)
#define FIRST SPATIAL DERIVATIVE FORWARD SET(jam,i,v) {
  FIRST_SPATIAL_DERIVATIVE_UPWIND_SET(jam,i,v)
#define FIRST TIME DERIVATIVE FORWARD SET(jam,v) {
  FDOPERATORJAM TDFF SET VALUE(jam,v)
#define ZERO ORDER SET(jam,v) FDOPERATORJAM ZO SET VALUE(
    jam, v)
#endif //PremiaCurrentVersion
```

References