

fps1d

1 Description

$$\begin{cases} dX_t = r X_t dt + \sigma_t X_t dW_t \\ \sigma_t = f(Y_t) \\ dY_t = -\alpha Y_t dt + \beta dZ_t \end{cases}$$

2 Code Implementation

```
#ifndef _FPS1D_H
#define _FPS1D_H

#include "optype.h"
#include "var.h"
#include "error_msg.h"

#define TYPEMOD FPS1D

/*1D Fouque Papanicolau Sircar World*/
typedef struct TYPEMOD
{
    VAR T;
    VAR S0;
    VAR Divid;
    VAR R;
    VAR Sigma0;
    VAR MeanReversion;
    VAR LongRunVariance;
    VAR Rho;
    VAR SigmaF;
} TYPEMOD;
```

#endif