fps1d

1 Description

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

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
```