Source | Model Presentation

hw1d

1 Description

The model is defined by

$$dS_t = (r-q)S_t dt + \sqrt{\sigma_t} S_t dW_t^1,$$
$$d\sigma_t = \nu \sigma_t dt + \zeta \sigma_t dW_t^2,$$

where W^1 and W^2 are two correlated Brownian motions with $\langle W^1, W^2 \rangle_t = \rho t$.

2 Code Implementation

```
#ifndef _HW1D_H
#define _HW1D_H

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

#define TYPEMOD HW1D

/*1D HULL-WHITE World*/
typedef struct TYPEMOD{
  VAR T;
  VAR S0;
  VAR Divid;
  VAR R;
  VAR Sigma0;
  VAR Mean;
  VAR Sigma;
  VAR Rho;
} TYPEMOD;
```

```
#endif
```