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```
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion < (2008+2) //The "#els
#else
```

```
double Asian_BS_FusaiMeucci(double spot, double strike,
                             double maturity, double rf, double dividend,
                             double sigmaBS,
                             int nmonitoringdates,
                             double lowlim, double uplim,
                             int nquadpoints, long nfft,
                             double price[], double solution[], double *delta);
```

```
double Asian_NIG_FusaiMeucci(double spot,
                              double strike,
                              double maturity,
                              double rf,
                              double dividend,
                              double alphaNIG, double betaNIG, double deltaNIG,
                              int nmonitoringdates,
                              double lowlim,
                              double uplim,
                              int nquadpoints, //n. of quadrature points
                              long nfft,
                              double price[],
                              double solution[], double *delta);
```

```
double Asian_MERTON_FusaiMeucci(double spot, double strike,
                                 double maturity, double rf, double dividend,
                                 double sgMerton, double alphaMerton, double lamb
                                 int nmonitoringdates,
                                 double lowlim, double uplim,
                                 int nquadpoints, long nfft,
                                 double price[], double solution[], double *delta
```

```
double Asian_CGMY_FusaiMeucci(double spot,
                                double strike,
                                double maturity,
                                double rf,
                                double dividend,
                                double CCGMY, double GCGMY, double MCGMY, double Y
```

```

        int nmonitoringdates,
        double lowlim,
        double uplim,
        int nquadpoints,//n. of quadrature points
        long nfft,
        double price[],
        double solution[], double *delta);

double Asian_DE_FusaiMeucci(double spot,
        double strike,
        double maturity,
        double rf,
        double dividend,
        double sgDE, double lambdaDE, double pDE, double eta,
        int nmonitoringdates,
        double lowlim,
        double uplim,
        int nquadpoints,//n. of quadrature points
        long nfft,
        double price[],
        double solution[], double *delta);

//OUTPUT: Contains the solution
double DiscreteAsian(int model,//modello
        double spot,
        double strike,
        double rf,
        double dt,
        int ndates,
        double lowlim,
        double uplim,
        int npoints,//n. of quadrature points
        long nfft,//n. of points for the fft inversion
        double ModelParameters[], //the parameters of the model
        double price[],
        double solution[], double *delta); //OUTPUT: Contains the s

//compute the moments of L
void newmomentsAM(int model, double rf, double dt, int maxmoment,
        int ndates, double parameters[], double **momtable);

```

```
//compute the moments of the arithmetic average given the moments of L
void newmomentsArithM(int ndates, double Lmoments[], double *AvgMoments);

//compute the probability bound
//using the moment bound
double boundAM(int model, double bound, double rf, double dt, int maxmoment,
               int ndates, double parameters[], double moments[]);

//We find in an automatic way the extremes of integration
int findlowuplimit(int model, double rf, double dt, int maxnummoments,
                  int ndates, double lowfactor, double upfactor,
                  double parameters[], double extremes[]);

#endif //PremiaCurrentVersion
```