

Sub MeanFirstTimeCall(delt As Double, m As Integer, N_of_Steps As Integer, H As Variant, H_end As Variant, pr, Mft As Double)

Dim Ident As Variant
Dim A1 As Variant
Dim A2 As Variant
Dim A3 As Variant
Dim R As Variant
Dim B As Variant
Dim C As Variant

ReDim Ident((m - 1), (m - 1))
ReDim A1((m - 1), (m - 1))
ReDim A2((m - 1), (m - 1))
ReDim A3((m - 1), (m - 1))
ReDim R((m - 1), 2)
ReDim B((m - 1), 2)
ReDim C((m - 1), 2)

Dim Tot As Double: Dim Tot1 As Double
Dim i As Integer: Dim j As Integer

```
For i = 1 To (m - 1)
    For j = 1 To (m - 1)
        Ident(i, j) = 0#
    Next j
Next i
For i = 1 To (m - 1)
    Ident(i, i) = 1#
    R(i, 1) = H(i, m)
    R(i, 2) = 0#
Next i
For i = 1 To (m - 1)
    For j = 1 To (m - 1)
        A1(i, j) = Ident(i, j) - H(i, j)
        A2(i, j) = Ident(i, j) - H_end(i, j)
    Next j
Next i
```

'##### Here is matrix inversion
A1 = WorksheetFunction.MInverse(A1)
'##### End of matrix inversion

'##### Here is matrix multiplication
A3 = WorksheetFunction.MMult(A1, A2)
C = WorksheetFunction.MMult(A3, R)
'##### End of matrix multiplication

```
For i = 1 To (m - 1)
    For j = 1 To (m - 1)
        A3(i, j) = A3(i, j) - N_of_Steps * H_end(i, j)
    Next j
Next i
```

'##### Here is matrix multiplication
A3 = WorksheetFunction.MMult(A1, A3)
B = WorksheetFunction.MMult(A3, R)
'##### End of matrix multiplication

Tot = 0#: Tot1 = 0#
For i = 1 To (m - 1)
 Tot = Tot + pr(1, i) * B(i, 1)

Matrix inversion
 $A1 = (A1)^{-1}$

Matrix multiplication

```
Tot1 = Tot1 + pr(1, i) * C(i, 1)  
Next i
```

```
Mft = delt * Tot / Tot1
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End Sub
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