

# CORRECTIONS AND ADDENDA

## Large Sample Simulation of Flicker Noise

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1. The covariance program on page 215 has two errors. Here are the corrected lines:

```
1260 IF I1<>N THEN F = F/(BET(I1)-BET(N))
1300 D(I,N) = D(I1,N)*F
```

2. Lines 220-290 on page 204 compute the filter poles PH(N) and zeros TH(N), which approach 1 as N increases. Before running the covariance program on page 215, one has to set ALF(N) = 1 - TH(N), BET(N) = 1 - PH(N). The user will get a more accurate covariance matrix if ALF(N) and BET(N) are computed directly from PH(1) as follows:

```
220 REM COMPUTE ALPHAS AND BETAS
230 W = (1# - PH(1))/SQR(PH(1))
235 ALF(1) = 1#: BET(1) = 1# - PH(1)
240 FOR N = 2 TO M
250     W = W/R
260     ALF(N) = .5#*W*(SQR(W*W + 4#) - W)
270     W = W/R
280     BET(N) = .5#*W*(SQR(W*W + 4#) - W)
290 NEXT N
```

One can run the filter directly from the alphas and betas by rewriting line 370 as

```
370 Y(I) = Y(I-1) + Y1(I) - Y1(I-1) - BET(I)*Y1(I) + ALF(I)*Y1(I-1)
```

The user is reminded to use double precision throughout, except possibly for storage of the output sample Y(M).

Lines 520 and 530 in the spectral density routine on page 214 can be rewritten as

```
520 S = S*(4#*(1#-ALF(J))*SIN(.5#*W)^2 + ALF(J)^2)
530 S = S/(4#*(1#-BET(J))*SIN(.5#*W)^2 + BET(J)^2)
```

3. Minor typos

Page 203: The second phi in eq.(1) should be a theta.

Page 212: The title of Table 1 should be ALZ(i,j).