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Appendix A

THE COEFFICIENT OF THE DERIVATIVE TERMS BY CONTINUOUS INTEGRATION

The error due to the derivative terms obtained by the discrete cross-correlation method can be expressed by continuous integration. From Eqn. (2), if the autocorrelation function of the input signal is $\delta_r(t)$, the unit rectangular pulse of pulse width Δ, the cross-correlation $\phi_{xy}(\tau)$ is

$$\phi_{xy}(\tau) = \int_{-\infty}^{\infty} g(s)\delta_r(\tau-s)ds \tag{A.1}$$

In the intermediate value sequence feature, as shown in Fig. 10, $\delta_r(t)$ is defined as

$$\delta_r(t) = u(t+\tfrac{1}{2}\Delta)-u(t-\tfrac{1}{2}\Delta) \tag{A.2}$$

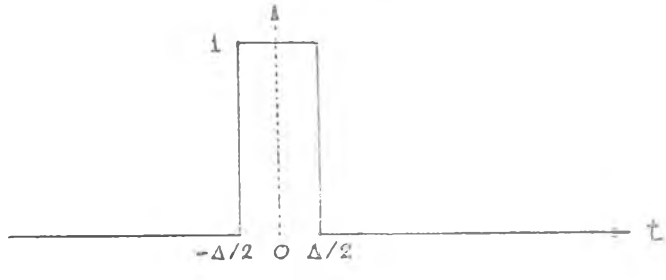

Fig. 10 Intermediate value discrete form of $\delta_r(t)$

Expanding the impulse response $g(s)$ in Taylor's Series about the point $s = \tau$, we have

$$g(s) = g(\tau)+(s-\tau)g'(\tau)+\frac{(s-\tau)^2}{2!}g''(\tau)+\frac{(s-\tau)^3}{3!}g'''(\tau)+\cdots\cdots \tag{A.3}$$

$$\text{and } \int_{-\infty}^{\infty} g(s)\delta_r(\tau-s)ds = A_0g(\tau)+A_1g'(\tau)+A_2g''(\tau)+A_3g'''(\tau)+\cdots\cdots \tag{A.4}$$

where A_0, A_1, A_2, A_3,..... etc. are constants of the form

$$A_k = \int_{-\infty}^{\infty} \frac{(s-\tau)^k}{k!} \delta_r(\tau-s)ds$$

$$= \frac{(-1)^{k+1}}{k!} \int_{\infty}^{-\infty} v^k \delta_r(v)\, dv \qquad (A.5)$$

Since in a physically realizable system, the impulse response has decayed to zero within the time period T, only the part of $\delta_r(t)$ for $t < T$ need be considered. This leaves two distinct cases, firstly $t \geq \Delta$ and secondly $t = 0$.

In the first case, $t \geq \Delta$

$$A_k = \left[\int_{\frac{\Delta}{2}}^{-\frac{\Delta}{2}} v^k dv\right] \frac{(-1)^{k+1}}{k!}$$

$$= \frac{(-1)^{k+1}}{k!(k+1)} \left[(-\tfrac{\Delta}{2})^{k+1} - (\tfrac{\Delta}{2})^{k+1}\right]$$

$$= \frac{1}{(k+1)!} \left[(\tfrac{\Delta}{2})^{k+1} - (-\tfrac{\Delta}{2})^{k+1}\right] \qquad (A.6)$$

which when evaluated for $k = 0,1,2,...$ and substituted into Eqn. (A.4), yields

$$\int_{-\infty}^{\infty} g(s)\delta_r(\tau-s)ds = \Delta\left[g(\tau)+\frac{\Delta^2}{24}g''(\tau)+\frac{\Delta^4}{1920}g^{iv}(\tau)+\cdots\cdots\cdots\right] \qquad (A.7)$$

In the second case, $t = 0$

$$A_k = \left[\int_{o}^{-\frac{\Delta}{2}} v^k dv\right] \frac{(-1)^{k+1}}{k!}$$

$$= \frac{1}{(k+1)!} (\tfrac{\Delta}{2})^{k+1} \qquad (A.8)$$

Then for $t = 0$, we have

$$\int_{-\infty}^{\infty} g(s)\,\delta_r(\tau-s)\,ds = \frac{\Delta}{2}\left[g(0)+\frac{\Delta}{4}g'(0)+\frac{\Delta^2}{24}g''(0)+\frac{\Delta^3}{192}g'''(0)+\frac{\Delta^4}{1920}g^{IV}(0)+\cdots\right] \quad (A.9)$$

Substitute into Eqn. (A.1), we obtain

$$\phi_{xy}(\tau) = \frac{\Delta}{2}\left[g(0)+\frac{\Delta}{4}g'(0)+\frac{\Delta^2}{24}g''(0)+\frac{\Delta^3}{192}g'''(0)+\frac{\Delta^4}{1920}g^{IV}(0)+\cdots\right] \quad \text{for } \tau = 0$$

$$= \Delta\left[g(\tau)+\frac{\Delta^2}{24}g''(\tau)+\frac{\Delta^4}{1920}g^{IV}(\tau)+\cdots\right] \quad \text{for } \tau \neq 0 \quad (A.10)$$

Appendix B

SHIFTING THE AUTOCORRELATION FUNCTION

To get the unit rectangular pulse of pulse width Δt, the cross-correlation between a b.m.l.s. whose two states are +a and -a, denoted by x(t) in Fig.7a, and a similar sequence whose two states are +a and 0 respectively, denoted by $\bar{x}(t)$ in Fig. 7b, are formed.

This may be shown to be so since the relationship between two sequences may be expressed as

$$\bar{x}(t) = \frac{1}{2}\{x(t)+a\} \tag{B.1}$$

Thus, the cross-correlation function $\phi_{x\bar{x}}(i\Delta t)$ will be

$$\begin{aligned}\phi_{x\bar{x}}(i\Delta t) &= \frac{1}{2}\phi_{xx}(i\Delta t)+\frac{a}{2N}\sum_{j=0}^{N-1} x(j\Delta t) \\ &= \frac{1}{2}\left[\phi_{xx}(i\Delta t)+\frac{a^2}{N}\right]\end{aligned} \tag{B.2}$$

Since $\sum_{j=0}^{N-1} x(j\Delta t) = a$ for any b.m.l.s.

The above equation may be written as

$$\begin{aligned}\phi_{x\bar{x}}(i\Delta t) &= \frac{a^2(N+1)}{2N} && \text{for } i = 0 \\ &= 0 && \text{otherwise}\end{aligned} \tag{B.3}$$

For the new method of correlation technique, we have

$$\begin{aligned}\phi_{x\bar{x}}(i\Delta t+\frac{\ell}{m}\Delta t) &= \frac{a^2(N+1)}{2N} && \text{for } i = 0 \\ &= 0 && \text{otherwise}\end{aligned} \tag{B.4}$$

where $\ell = 0,1,2,\ldots,m-1$ and m is the number of sub-intervals in time-bit interval Δt.

Appendix C

DERIVATIVE TERMS

In oder to evaluate the value of the derivative terms in Eqn. (56) in term of the impulse response, the Taylor's Series expansion is written as

$$g(s+\Delta) = g(s)+\Delta g'(s)+\frac{\Delta^2}{2!}g''(s)+\frac{\Delta^3}{3!}g'''(s)+\frac{\Delta^4}{4!}g^{iv}(s)+\frac{\Delta^5}{5!}g^{v}(s)+\cdots \quad (C.1)$$

From Eqn. (56), consider the case when i = 0, the derivative terms can be expanded as

$$\sum_{j=1}^{\infty}\frac{(\Delta t/m)^j}{2^j(j+1)!}g^{(j)}(0) = \frac{1}{4}(\frac{\Delta t}{m})g'(0)+\frac{1}{2^2.3!}(\frac{\Delta t}{m})^2g''(0)+\frac{1}{2^3.4!}(\frac{\Delta t}{m})^3g'''(0)$$
$$+\frac{1}{2^4.5!}(\frac{\Delta t}{m})^4g^{iv}(0)+\frac{1}{2^5.6!}(\frac{\Delta t}{m})^5g^{v}(0)+\cdots \quad (C.2)$$

From Eqn. (C.1), we obtain

$$g(0) = g(0) \quad (C.3)$$

$$g(\frac{1}{m}\Delta t) = g(0)+(\frac{\Delta t}{m})g'(0)+\frac{1}{2!}(\frac{\Delta t}{m})^2g''(0)+\frac{1}{3!}(\frac{\Delta t}{m})^3g'''(0)$$
$$+\frac{1}{4!}(\frac{\Delta t}{m})^4g^{iv}(0)+\frac{1}{5!}(\frac{\Delta t}{m})^5g^{v}(0)+\cdots \quad (C.4)$$

$$g(\frac{2}{m}\Delta t) = g(0)+2(\frac{\Delta t}{m})g'(0)+\frac{2^2}{2!}(\frac{\Delta t}{m})^2g''(0)+\frac{2^3}{3!}(\frac{\Delta t}{m})^3g'''(0)$$
$$+\frac{2^4}{4!}(\frac{\Delta t}{m})^4g^{iv}(0)+\frac{2^5}{5!}(\frac{\Delta t}{m})^5g^{v}(0)+\cdots \quad (C.5)$$

$$g(\frac{3}{m}\Delta t) = g(0)+3(\frac{\Delta t}{m})g'(0)+\frac{3^2}{2!}(\frac{\Delta t}{m})^2g''(0)+\frac{3^3}{3!}(\frac{\Delta t}{m})^3g'''(0)$$
$$+\frac{3^4}{4!}(\frac{\Delta t}{m})^4g^{iv}(0)+\frac{3^5}{5!}(\frac{\Delta t}{m})^5g^{v}(0)+\cdots \quad (C.6)$$

$$g(\tfrac{4}{m}\Delta t) = g(0)+4(\tfrac{\Delta t}{m})g'(0)+\tfrac{4^2}{2!}(\tfrac{\Delta t}{m})^2 g''(0)+\tfrac{4^3}{3!}(\tfrac{\Delta t}{m})^3 g'''(0)$$
$$+\tfrac{4^4}{4!}(\tfrac{\Delta t}{m})^4 g^{iv}(0)+\tfrac{4^5}{5!}(\tfrac{\Delta t}{m})^5 g^{v}(0)+\cdots \quad (C.7)$$

$$g(\tfrac{5}{m}\Delta t) = g(0)+5(\tfrac{\Delta t}{m})g'(0)+\tfrac{5^2}{2!}(\tfrac{\Delta t}{m})^2 g''(0)+\tfrac{5^3}{3!}(\tfrac{\Delta t}{m})^3 g'''(0)$$
$$+\tfrac{5^4}{4!}(\tfrac{\Delta t}{m})^4 g^{iv}(0)+\tfrac{5^5}{5!}(\tfrac{\Delta t}{m})^5 g^{v}(0)+\cdots \quad (C.8)$$

Multiplying Eqns. (C.3) to (C.8) by the constants A, B, C, D, E, and F respectively, the sum of the mutiplied equations is

$$Ag(0)+Bg(\tfrac{1}{m}\Delta t)+Cg(\tfrac{2}{m}\Delta t)+Dg(\tfrac{3}{m}\Delta t)+Eg(\tfrac{4}{m}\Delta t)+Fg(\tfrac{5}{m}\Delta t)$$
$$= (A+B+C+D+E+F)g(0)+\tfrac{\Delta t}{m}(B+2C+3D+4E+5F)g'(0)$$
$$+\tfrac{1}{2!}(\tfrac{\Delta t}{m})^2(B+4C+9D+16E+25F)g''(0)+\tfrac{1}{3!}(\tfrac{\Delta t}{m})^3(B+8C+27D+64E+125F)g'''(0)$$
$$+\tfrac{1}{4!}(\tfrac{\Delta t}{m})^4(B+16C+81D+256E+625F)g^{iv}(0)$$
$$+\tfrac{1}{5!}(\tfrac{\Delta t}{m})^5(B+32C+243D+1024E+3125F)g^{v}(0) \quad (C.9)$$

For small value of $\Delta t/m$, the terms of order higher than five are neglected. By setting Eqn. (C.2) to be equal to Eqn. (C.9) and comparing the coefficients of all corresponding terms in the right hand sides of Eqns. (C.2) and (C.9), the values of A, B, C, D, E, and F can be determined.

Thus, Eqn. (C.2) may be rewritten as

$$\sum_{j=1}^{\infty}\frac{(\Delta t/m)^j}{2^j(j+1)!}g^{(j)}(0) = Ag(0)+Bg(\tfrac{1}{m}\Delta t)+Cg(\tfrac{2}{m}\Delta t)+Dg(\tfrac{3}{m}\Delta t)+Eg(\tfrac{4}{m}\Delta t)+Fg(\tfrac{5}{m}\Delta t)$$
$$= -0.435162g(0)+0.8004541g(\tfrac{1}{m}\Delta t)-0.6470756g(\tfrac{2}{m}\Delta t)$$
$$+0.406789g(\tfrac{3}{m}\Delta t)-0.148358g(\tfrac{4}{m}\Delta t)+0.0233519g(\tfrac{5}{m}\Delta t) \quad (C.10)$$

When $i \neq 0$, the derivative terms in Eqn. (56) can be evaluated by

$$\sum_{j=1}^{M} \frac{(\Delta t/m)^{2j}}{2^{2j}(2j+1)!} g^{(2j)}(\tfrac{1}{m}\Delta t) = 0.0387153g(0)-0.0715278g(\tfrac{1}{m}\Delta t)+0.0239583g(\tfrac{2}{m}\Delta t)$$
$$+0.0118056g(\tfrac{3}{m}\Delta t)-0.0025148g(\tfrac{4}{m}\Delta t) \qquad (C.11)$$

$$\sum_{j=1}^{M} \frac{(\Delta t/m)^{2j}}{2^{2j}(2j+1)!} g^{(2j)}(\tfrac{i}{m}\Delta t) = -0.1010417g(\tfrac{i}{m}\Delta t)+0.0534722\left[g(\tfrac{i-1}{m}\Delta t)+g(\tfrac{i+1}{m}\Delta t)\right]$$
$$-0.0029514\left[g(\tfrac{i-2}{m}\Delta t)+g(\tfrac{i+2}{m}\Delta t)\right]$$
$$\text{for } 2 \leqslant i \leqslant N-3 \qquad (C.12)$$

$$\sum_{j=1}^{M} \frac{(\Delta t/m)^{2j}}{2^{2j}(2j+1)!} g^{(2j)}(\tfrac{mN-2}{m}\Delta t) = 0.0446181g(\tfrac{mN-1}{m}\Delta t)-0.0951389g(\tfrac{mN-2}{m}\Delta t)$$
$$+0.059375g(\tfrac{mN-3}{m}\Delta t)-0.0118056g(\tfrac{mN-4}{m}\Delta t)$$
$$+0.0029514g(\tfrac{mN-5}{m}\Delta t) \qquad (C.13)$$

$$\sum_{j=1}^{M} \frac{(\Delta t/m)^{2j}}{2^{2j}(2j+1)!} g^{(2j)}(\tfrac{mN-1}{m}\Delta t) = 0.1220486g(\tfrac{mN-1}{m}\Delta t)-0.3631944g(\tfrac{mN-2}{m}\Delta t)$$
$$+0.3989583g(\tfrac{mN-3}{m}\Delta t)-0.1965278g(\tfrac{mN-4}{m}\Delta t)$$
$$+0.0387153g(\tfrac{mN-5}{m}\Delta t) \qquad (C.14)$$

Appendix D

THE CONVOLUTION INTEGRAL

Consider a linear system with input x(t), output y(t), and the impulse response g(t). Suppose the input is the unit rectangular pulse of pulse width Δ,

$$x(t) = \delta_r(t) = \frac{1}{\Delta}\left[u(t+\tfrac{1}{2}\Delta)-u(t-\tfrac{1}{2}\Delta)\right] \tag{D.1}$$

Then for Δ sufficiently small, the output signal is the impulse response

$$y(t) = g(t) \tag{D.2}$$

For arbitrary x(t) we may again write (in Z-Transform)

$$x(t) = \Delta\sum_{j=0}^{\infty} x(j\Delta)\delta_r(t)Z^{-j} - \frac{1}{2}\Delta x(0)\delta_r(t) \tag{D.3}$$

Neglecting the term $\frac{1}{2}\Delta x(0)\delta_r(t)$, we may write

$$x(t) = \Delta\sum_{j=0}^{\infty} x(j\Delta)Z^{-j}\delta_r(t) \tag{D.4}$$

The system response to $\Delta x(j\Delta)Z^{-j}\delta_r(t) = \Delta x(j\Delta)\delta_r(t-j\Delta)$ is (for small Δ) equal to $\Delta x(j\Delta)g(t-j\Delta)$, and y(t) at $t = k\Delta$ is the superposition of these impulse response up to and including $k\Delta$. Thus

$$y(k\Delta) = \Delta\sum_{j=0}^{k} x(j\Delta)g(k\Delta-j\Delta) \tag{D.5}$$

This expression for $y(k\Delta)$ indicates that the response is the summation of the past and the present inputs, each weighted by the response to an impulse applied at that time. For this reason the impulse

response is frequently referred to as the weighting function.

Let $j\Delta = v$ and $k\Delta = t_0$, from Eqn. (D.5) we have

$$y(t_0) = \sum_{v=0}^{t_0} x(v)g(t_0-v)\Delta v \tag{D.6}$$

where $\Delta v = j\Delta-(j-1)\Delta = \Delta$. For the value of Δ approaches 0, we have

$$y(t_0) = \int_0^{t_0} x(v)g(t_0-v)dv$$

If $g(t) = 0$ for $t < 0$, we have

$$y(t) = \int_0^{t} x(v)g(t-v)dv \tag{D.7}$$

which is the well-known 'convolution integral'.

For the intermediate value sequence, the value assigned to the first term is the function at $t = \Delta/2$ and not $t = 0$, and the n th. term is the function at $t = (n+1/2)\Delta$. In terms of the Z-Transform, we have

$$x(j\Delta+\tfrac{1}{2}\Delta) = Z^{\frac{1}{2}}\, x(j\Delta)$$

$$g(j\Delta+\tfrac{1}{2}\Delta) = Z^{\frac{1}{2}}\, g(j\Delta)$$

Then Eqn. (D.5) may be rewritten as

$$y(k\Delta) = \Delta Z^{-1} \sum_{j=0}^{k} x(j\Delta+\tfrac{1}{2}\Delta)g(k\Delta-j\Delta+\tfrac{1}{2}\Delta)$$

$$= \Delta \sum_{j=0}^{k-1} x(j\Delta+\tfrac{1}{2}\Delta)g(k\Delta-j\Delta-\Delta+\tfrac{1}{2}\Delta) \tag{D.8}$$

Appendix E

LISTS OF DIGITAL COMPUTER PROGRAMS

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```
      PROGRAM  CHAINAN1

C*****************************************************************D
C                                                                 D
C                        VARIABLES DESCRIPTION                    D
C                                                                 D
C                  X1 = B.M.L.S. OF N BITS WITH AMPLITUDE OF +1,0 D
C                  X2 = B.M.L.S. OF N BITS WITH AMPLITUDE OF +1,-1D
C                  Y  = OUTPUT SIGNAL                             D
C                  G1 = SYSTEM IMPULSE RESPONSE                   D
C                  G2 = CROSS-CORRELATION FUNCTION                D
C                  A = AMPLITUDE OF B.M.L.S.                      D
C                  DTIME = TIME INTERVAL OF ONE BIT               D
C                  INTV = NO. OF INTERVALS IN ONE BIT             D
C                  ISW2 = 1, FOR NORMAL B.M.L.S.                  D
C                       = 2, FOR SHIFTED AUTOCORRELATION FUNCTION D
C                                                                 D
C*****************************************************************D

      DIMENSION X1(510),X2(510),Y(510),G1(2040),G2(510)
    1 READ(60,101) INTV,DTIME,ERROR,A
      IF(EOF,60) 27,30
C***  READ B.M.L.S. WITH AMPLITUDE OF +1, 0
   30 READ(60,100) N,(X1(J),J=1,N)
      NN=N*INTV $ NNN=4*NN $ ISW1=1 $ ISW2=1
      DT=DTIME/INTV
C***  GENERATE NORMAL B.M.L.S. WITH AMPLITUDE OF +1, -1
      DO 2 J=1,N
      X2(J)=(2.*X1(J)-1.)*A
    2 X1(J)=X1(J)*A
      DTT=DTIME/INTV/2.
C***  GENERATE TRANSFER FUNCTION OF LINEAR SYSTEM MODEL
    3 DO 8 J=1,NNN
      F=(J-.5)*DTT
      GO TO (5,6),ISW1
    5 G1(J)=1./EXP(F)
      GO TO 8
    6 G1(J)=1./EXP(F)-1./EXP(10.*F)
    8 CONTINUE
C***  FIND OUTPUT OF ASSUMED MODEL FROM THE CONVOLUTION INTEGRAL
      CALL CONV(N,X2,Y,G1,DTIME,INTV,NN)
      GO TO (9,10),ISW2
C***  FIND CROSS-CORRELATION BETWEEN X2 AND Y
    9 T1=TIMEF(1.)
      CALL CORR(N,X2,Y,G2,INTV,NN)
      GO TO 11
C***  FIND CROSS-CORRELATION BETWEEN X1 AND Y
   10 T1=TIMEF(1.)
      CALL CORR(N,X1,Y,G2,INTV,NN)
      ISW2=2
   11 T2=TIMEF(1.)
C***  TAKE OUT ERROR DUE TO SYSTEM STEADY-STATE GAIN
C***                       AND DERIVATIVE TERMS
      CALL COREC(G1,G2,N,ISW2,DTIME,INTV,NN,ERROR,A)
      T3=TIMEF(1.)  $  TT1=(T2-T1)/1000.  $  TT2=(T3-T1)/1000.
      GO TO (13,14),ISW1
```

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```
   13  WRITE(61,301)
       GO TO 16
   14  WRITE(61,302)
   16  GO TO (17,18),ISW2
   17  WRITE(61,214)
       GO TO 19
   18  WRITE(61,213)
   19  WRITE(61,206) INTV,DTIME,N,A
       WRITE(61,215) TT1,TT2
       WRITE(61,200)
       JN=NN  $  IF(JN.GT.54) JN=54
       DO 25 J=1,JN
       F=(J-1)*DT
       GO TO (21,22),ISW1
   21  B=1./EXP(F)
       GO TO 24
   22  B=1./EXP(F)-1./EXP(10.*F)
   24  ERR=B-G1(J)
       K=(J-1)/INTV+1
   25  WRITE(61,201) F,X2(K),Y(J),B,G1(J),ERR
       WRITE(61,211)
       GO TO (10,26),ISW2
   26  ISW1=ISW1+1
       ISW2=1
       IF(ISW1-2) 3,3,1
   27  STOP
  100  FORMAT(I4/(80F1.0))
  101  FORMAT(I5,3F10.3)
  200  FORMAT(15X* TIME X(T)*7X*Y(T)*11X*G(T)*6X*ESTIMATED G(T)*5X
     $*ERROR*)
  201  FORMAT(14X,F6.2,F5.1,7F15.10)
  206  FORMAT(22X*INTERVAL =*I3,5X*DTIME =*F5.2,5X*N =*I5,5X*A =*F5.2)
  211  FORMAT(1H1)
  213  FORMAT(31X*USING SHIFTED AUTOCORRELATION FUNCTION*)
  214  FORMAT(43X*USING B.M.L.S.*)
  215  FORMAT(18X*CORRELATION TIME =*F8.3* SEC*3X*IDENTIFYING TIME =*F8.3
     $* SEC*)
  301  FORMAT(42X*G(T) = 1./EXP(T)*)
  302  FORMAT(36X*G(T) = 1./EXP(T)-1./EXP(10T)*)
       END
```

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```
      PROGRAM  CHAINAN2

C*****************************************************************D
C                                                                 D
C                        VARIABLES DESCRIPTION                    D
C                                                                 D
C                  X1 = B.M.L.S. OF N BITS                        D
C                  X2 = D.C. OFFSET ADDED B.M.L.S.                D
C                  Y1 = OUTPUT SIGNAL                             D
C                  Y2 = CORRECTED OUTPUT                          D
C                  G1 = SYSTEM IMPULSE RESPONSE                   D
C                  G2 = CROSS-CORRELATION FUNCTION                D
C                  A = AMPLITUDE OF B.M.L.S.                      D
C                  DTIME = TIME INTERVAL OF ONE BIT               D
C                  INTV = NO. OF INTERVALS IN ONE BIT             D
C                                                                 D
C*****************************************************************D

      DIMENSION X1(510),X2(510),Y1(510),Y2(510),G1(2040),G2(510),D(30)
    1 READ(60,101) INTV,DTIME,ERROR,A
      IF(EOF,60) 27,30
C***  READ B.M.L.S. INPUT SIGNAL
   30 READ(60,100) N,(X1(J),J=1,N)
      NN=N*INTV  $  NNN=4*NN+4*INTV  $  ISW1=1
      DT=DTIME/INTV
      B=A/N
C***  PUT D.C. OFFSET IN INPUT SIGNAL
      DO 2 J=1,N
      X1(J)=(2.*X1(J)-1.)*A
    2 X2(J)=X1(J)-B
      DTT=DTIME/INTV/2.
    3 DO 8 J=1,NNN
      F=(J-.5)*DTT
      GOTO (4,5,6,7),ISW1
    4 G1(J)=SIN(F)/EXP(F)
      GO TO 8
    5 G1(J)=1./EXP(F)
      GO TO 8
    6 G1(J)=1./EXP(F)-1./EXP(10.*F)
      GO TO 8
    7 G1(J)=COS(2.*F)/EXP(F)
    8 CONTINUE
      CALL CONV(N,X2,Y1,G1,DTIME,INTV,NN)
C***  ADD POLINOMIAL DRIFT IN OUTPUT
      N2=NN+2*INTV
      DO 40 J=1,N2
      T=(NN+J-.5)*DT
   40 Y1(J)=Y1(J)+(1.+T+T*T)*.1*A
      T1=TIMEF(1.)
C***  FIND THE COEFFICIENCE OF OUTPUT POLYNOMIAL DRIFT
      CALL DRIFT(N,Y1,DTIME,INTV,NN,D)
C***  TAKE OUT THE POLYNOMIAL DRIFT TERMS
      DO 41 J=1,N2
      Y2(J)=Y1(J)
      T=(NN+J-.5)*DT
   41 Y2(J)=Y2(J)-D(3)-D(2)*T-D(1)*T*T
```

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```
      T2=TIMEF(1.)
C***  FIND CROSS-CORRELATION BETWEEN OUTPUT AND INPUT
      CALL CORR(N,X1,Y2,G2,INTV,NN)
      T3=TIMEF(1.)
      CALL CORRECT(G1,G2,N,DTIME,INTV,NN,ERROR,A)
      T4=TIMEF(1.)  $  TT1=(T3-T2)/1000.  $  TT2=(T4-T1)/1000.
      GO TO (12,13,14,15),ISW1
   12 WRITE(61,300)
      GO TO 16
   13 WRITE(61,301)
      GO TO 16
   14 WRITE(61,302)
      GO TO 16
   15 WRITE(61,303)
   16 WRITE(61,206) INTV,DTIME,N,A
      WRITE(61,212)
      WRITE(61,213) TT1,TT2
      WRITE(61,200)
C***  LIST INPUT, OUTPUT, SYSTEM AND ESTIMATED IMPULSE FUNCTION AND ERROR
      DO 25 J=1,54
      F=(J-1)*DT
      GO TO (20,21,22,23),ISW1
   20 B=SIN(F)/EXP(F)
      GO TO 24
   21 B=1./EXP(F)
      GO TO 24
   22 B=1./EXP(F)-1./EXP(10.*F)
      GO TO 24
   23 B=COS(2.*F)/EXP(F)
   24 ERR=B-G1(J)
      K=(J-1)/INTV+1
   25 WRITE(61,201) F,X2(K),Y1(J),B,G1(J),ERR
      WRITE(61,211)
      ISW1=ISW1+1
      IF(ISW1-4) 3,3,1
   27 STOP
  100 FORMAT(I4/(80F1.0))
  101 FORMAT(I5,3F10.3)
  200 FORMAT(15X* TIME X(T)*7X*Y(T)*11X*G(T)*6X*ESTIMATED G(T)*5X
     $*ERROR*)
  201 FORMAT(14X,F6.2,F5.1,7F15.10)
  206 FORMAT(22X*INTERVAL =*I3,5X*DTIME =*F5.2,5X*N =*I5,5X*A =*F5.2)
  211 FORMAT(1H1)
  212 FORMAT(17X*INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1
     $A(1+T+T*4H**2))
  213 FORMAT(18X*CORRELATION TIME =*F8.3* SEC*3X*IDENTIFYING TIME =*F8.3
     $* SEC*)
  300 FORMAT(39X*G(T) = SIN(T)/EXP(T)*)
  301 FORMAT(41X*G(T) = 1./EXP(T)*)
  302 FORMAT(36X*G(T) = 1./EXP(T)-1./EXP(10T)*)
  303 FORMAT(40X*G(T) = COS(2T)/EXP(T)*)
      END
```

```
      SUBROUTINE CONV(N,X,Y,G,DTIME,INTV,NN)
C*******************************************************************D
C                                                                   D
C                  SUBROUTINE FOR FINDING OUTPUT SIGNAL             D
C                                                                   D
C*******************************************************************D
C                                                                   D
C                        VARIABLES DESCRIPTION                      D
C                                                                   D
C                    X = INPUT SIGNAL                               D
C                    Y = OUTPUT SIGNAL                              D
C                    G = SYSTEM IMPULSE RESPONSE FUNCTION           D
C                                                                   D
C*******************************************************************D
      DIMENSION X(510),Y(510),G(2040)
      DT=DTIME/INTV/2.
      N2=NN+2*INTV
      DO 2 KT=1,N2
      Y(KT)=0.
      MM=2*(NN+KT)-1
      DO 1 M=1,MM
      KM=2*(NN+KT)-M
      MT=(M-1)/2/INTV+1
      MT=MT-(MT-1)/N*N
    1 Y(KT)=Y(KT)+X(MT)*G(KM)
    2 Y(KT)=Y(KT)*DT
      RETURN
      END
```

```
      SUBROUTINE CORR(N,X,Y,R,INTV,NN)
C*************************************************************************D
C                                                                         D
C          SUBROUTINE FOR FINDING CROSS-CORRELATION FUNCTION              D
C                                                                         D
C*************************************************************************D
C                                                                         D
C                          VARIABLES DESCRIPTION                          D
C                                                                         D
C             R = CROSS-CORRELATION FUNCTION OF X AND Y                   D
C                                                                         D
C*************************************************************************D
      DIMENSION X(510),Y(510),R(510)
      DO 2 KT=1,NN
      R(KT)=0.
      DO 1 M=1,N
      MT=(M-1)*INTV+1
      MK=MT+KT-1
      MK=MK-(MK-1)/NN*NN
    1 R(KT)=R(KT)+X(M)*Y(MK)
    2 R(KT)=R(KT)/N
      RETURN
      END
```

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```
      SUBROUTINE COREC(G1,G2,N,ISW2,DTIME,INTV,NN,ERROR,A)

C*****************************************************************D
C                                                                 D
C          SUBROUTINE FOR FINDING IMPULSE RESPONSE FUNCTION       D
C          FROM CROSS-CORRELATION FUNCTION AND ELIMINATING        D
C           SYSTEM STEADY-STATE GAIN AND DERIVATIVE TERMS         D
C                                                                 D
C*****************************************************************D
C                                                                 D
C                        VARIABLES DESCRIPTION                    D
C                                                                 D
C                  G1 = IMPULSE RESPONSE FUNCTION                 D
C                  G2 = CROSS-CORRELATION FUNCTION                D
C                  ISW2 = 1, FOR NORMAL B,M,L,S.                  D
C                       = 2, FOR SHIFTED AUTOCORRELATION FUNCTION D
C                                                                 D
C*****************************************************************D

      DIMENSION G1(NN),G2(NN)
      N2=NN-2  $  ER=100.
      AA=A*A
      F=ISW2*N/DTIME/(N+1)*INTV/AA
      AVERG=0.
      GO TO (1,3),ISW2
C***  FINDING ERROR DUE TO SYSTEM STEADY STATE GAIN
    1 DO 2 J=1,NN
    2 AVERG=AVERG+G2(J)
      AVERG=AVERG/INTV
    3 G1(1)=(G2(1)+AVERG)*F
      IF(INTV.LE.1) GO TO 6
      DO 5 L=2,INTV
    5 G1(L)=(G2(L)-G2(L-1))*F
    6 K=INTV+1
      DO 7 L=K,NN
      M=L-INTV
    7 G1(L)=(G2(L)-G2(L-1))*F+G1(M)
      G1(1)=2.*G1(1)
      DO 8 L=1,NN
    8 G2(L)=G1(L)
      DO 14  JJ=1,100
      B=G2(1)+.435162*G1(1)-.8004541*G1(2)+.6470756*G1(3)-.4067898*
     $G1(4)+.148358*G1(5)-.0233519*G1(6)
      ERRM=ABS(G1(1)-B)
      G1(1)=B
      B=G2(2)-.0387153*G1(1)+.0715278*G1(2)-.0239583*G1(3)-.0118056*
     $G1(4)+.0025148*G1(5)
      ERR=ABS(G1(2)-B)   $  G1(2)=B
      IF(ERR.GT.ERRM) ERRM=ERR
      DO 10 L=3,N2
      B=G2(L)+.1010417*G1(L)-.0534722*(G1(L-1)+G1(L+1))+.0029514*(G1(L-2
     $)+G1(L+2))
      ERR=ABS(G1(L)-B)  $  G1(L)=B
      IF(ERR.GT.ERRM) ERRM=ERR
   10 CONTINUE
      G1(NN-1)=G2(NN-1)-.0446181*G1(NN)+.0951389*G1(NN-1)-.059375*G1
```

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```
     $(NN-2)+.0118056*G1(NN-3)-.0029514*G1(NN-4)
      G1(NN)=G2(NN)-.1220486*G1(NN)+.3631944*G1(NN-1)-.3989583*G1(NN-2)
     $+.1965278*G1(NN-3)-.0387153*G1(NN-4)
      IF(ERRM.GE.ER) GO TO 16
      IF(ERRM.LE.ERROR) GO TO 16
      ER=ERRM
   14 CONTINUE
   16 RETURN
      END
```

```
      SUBROUTINE CORRECT(G1,G2,N,DTIME,INTV,NN,ERROR,A)
C*****************************************************************D
C                                                                 D
C          SUBROUTINE FOR FINDING IMPULSE RESPONSE FUNCTION       D
C          FROM CROSS-CORRELATION FUNCTION AND ELIMINATING        D
C           SYSTEM STEADY-STATE GAIN AND DERIVATIVE TERMS          D
C                                                                 D
C*****************************************************************D
C                                                                 D
C                       VARIABLES DESCRIPTION                     D
C                                                                 D
C                  G1 = IMPULSE RESPONSE FUNCTION                 D
C                  G2 = CROSS-CORRELATION FUNCTION                D
C                                                                 D
C*****************************************************************D
      DIMENSION G1(2040),G2(510),G3(510)
      DT=DTIME/INTV
      N2=NN-2  $  ER=100.
      F=N/DTIME/(N+1)*INTV/A**2
      G1(1)=G2(1)*F
      IF(INTV.LE.1) GO TO 6
      DO 5 L=2,INTV
    5 G1(L)=(G2(L)-G2(L-1))*F
    6 K=INTV+1
      DO 7 L=K,NN
      M=L-INTV
    7 G1(L)=(G2(L)-G2(L-1))*F+G1(M)
      G1(1)=2.*G1(1)
      I=NN-INTV+1
      DO 8 L=1,NN
      G2(L)=G1(L)
    8 G3(L)=G1(L)
      DO 81 L=1,NN,INTV
   81 G1(L)=G1(L)-G1(I)
      N1=INTV+1
      DO 14  JJ=1,100
      SUM=G1(1)/2.
      DO 9 L=2,NN
    9 SUM=SUM+G1(L)
      A1=SUM/(N+1)  $  A2=A1/N  $  A3=A1+A2
      G3(1)=G2(1)+2.*A3
      DO 11 L=N1,NN,INTV
   11 G3(L)=G2(L)+A3
      B=G3(1)+.435162*G1(1)-.8004541*G1(2)+.6470756*G1(3)-.4067898*
     $G1(4)+.148358*G1(5)-.0233519*G1(6)
      ERRM=ABS(G1(1)-B)  $  G1(1)=B
      B=G3(2)-.0387153*G1(1)+.0715278*G1(2)-.0239583*G1(3)-.0118056*
     $G1(4)+.0025148*G1(5)
      ERR=ABS(G1(2)-B)  $  G1(2)=B
      IF(ERR.GT.ERRM) ERRM=ERR
      DO 10 L=3,N2
      B=G3(L)+.1010417*G1(L)-.0534722*(G1(L-1)+G1(L+1))+.0029514*(G1(L-2
     $)+G1(L+2))
      ERR=ABS(G1(L)-B)  $  G1(L)=B
```

```
      IF(ERR.GT.ERRM) ERRM=ERR
   10 CONTINUE
      G1(NN-1)=G3(NN-1)-.0446181*G1(NN)+.0951389*G1(NN-1)-.059375*G1
     $(NN-2)+.0118056*G1(NN-3)-.0029514*G1(NN-4)
      G1(NN)=G3(NN)-.1220486*G1(NN)+.3631944*G1(NN-1)-.3989583*G1(NN-2)
     $+.1965278*G1(NN-3)-.0387153*G1(NN-4)
      IF(ERRM.GE.ER) GO TO 16
      IF(ERRM.LE.ERROR) GO TO 16
      ER=ERRM
   14 CONTINUE
   16 RETURN
      END
```

```
      SUBROUTINE DRIFT(N,Y,DTIME,INTV,NN,A)

C*****************************************************************D
C                                                                 D
C  SUBROUTINE FOR FINDING THE COEFFICIENTS OF OUTPUT POLYNOMIAL DRIFT  D
C                                                                 D
C*****************************************************************D
C                                                                 D
C                          VARIABLES DESCRIPTION                  D
C                                                                 D
C        Y = OUTPUT SIGNAL                                        D
C        A = THE COEFFICIENTS OF OUTPUT POLYNOMIAL DRIFT          D
C                                                                 D
C*****************************************************************D

      DIMENSION A(30),Y(510)
      DT=DTIME/INTV   $  B1=DTIME**3/3.  $  B2=DTIME**2/2.
      DO 3 I=1,3
      A(I)=((2*N+I-1)**3-(N+I-1)**3)*B1
      A(I+3)=((2*N+I-1)**2-(N+I-1)**2)*B2
    3 A(I+6)=N*DTIME
      A(10)=0.
      DO 4 I=1,NN
    4 A(10)=A(10)+Y(I)*DT
      SUM1=0.  $  SUM2=0.
      DO 5 I=1,INTV
    5 SUM1=SUM1+Y(I)*DT
      N1=NN+1  $  N2=NN+INTV
      DO 6 I=N1,N2
    6 SUM2=SUM2+Y(I)*DT
      A(11)=A(10)+SUM2-SUM1
      SUM1=0.  $  SUM2=0.
      N1=INTV+1  $  N2=2*INTV
      DO 7 I=N1,N2
    7 SUM1=SUM1+Y(I)*DT
      N1=NN+INTV+1  $  N2=NN+2*INTV
      DO 8 I=N1,N2
    8 SUM2=SUM2+Y(I)*DT
      A(12)=A(11)+SUM2-SUM1
      NNN=3
      CALL SLIN(NNN,A,IERR1)
      RETURN
      END
```

```
      SUBROUTINE SLIN(N,A,IERR1)

C*****************************************************************D
C                                                                 D
C        SUBROUTINE FOR SOLVING SIMULTANEOUS LINEAR EQUATIONS     D
C                                                                 D
C*****************************************************************D
C                                                                 D
C                          VARIABLES DESCRIPTION                  D
C                                                                 D
C     N IS THE NUMBER OF VARIABLES OR EQUATIONS,                  D
C     A IS THE COLUMN MATRIX OF THE COEFFICIENT MATRIX WITH THE   D
C       FOLLOWING VECTOR OF THE CONSTANCES,                       D
C     A(1) TO A(N) ARE THE ROOTS OF THE EQUATIONS,                D
C     IERR1 = -1,WHEN THE COEFFICIENT MATRIX IS SINGULAR,         D
C     IERR1 = +1,WHEN THE COEFFICIENT MATRIX IS NONSINGULAR,      D
C                                                                 D
C*****************************************************************D

      DIMENSION A(30)
      N1=N+1
      DO 16 I=1,N
      II=I+N*(I-1)
      I1=I+1
      IF(I-N) 4,8,8
    4 DO 7 J=I1,N
      JI=J+N*(I-1)
      IF(ABS(A(II))-ABS(A(JI))) 5,7,7
    5 DO 6 J1=I,N1
      IJ=II+N*(J1-1)
      JJ=J+N*(J1-1)
      B=A(IJ)
      A(IJ)=A(JJ)
    6 A(JJ)=B
    7 CONTINUE
    8 IF(ABS(A(II))-1.E-10) 9,9,10
    9 IERR1=-1
      RETURN
   10 IERR1=1
      DO 15 J=1,N
      IF(J-I) 11,15,11
   11 JI=J+N*(I-1)
      IF(ABS(A(JI))-1.E-10) 12,12,13
   12 B=0.
      GO TO 14
   13 B=A(JI)/A(II)
   14 DO 15 J1=I1,N1
      JJ=J+N*(J1-1)
      IJ=I+N*(J1-1)
      A(JJ)=A(JJ)-B*A(IJ)
   15 CONTINUE
   16 CONTINUE
      DO 19 I=1,N
      II=I+N*(I-1)
      IN=I+N**2
      IF(ABS(A(IN))-1.E-10) 17,17,18
```

```
      17   A(I)=0.
           GO TO 19
      18   A(I)=A(IN)/A(II)
      19   CONTINUE
           RETURN
           END
```

Appendix F

THE RESULTS OF PROGRAM CHAINAN1

G(T) = 1./EXP(T)
USING B.M.L.S.

INTERVAL = 1 DTIME = 0.16 N = 31 A = 1.00
CORRELATION TIME = 0.099 SEC IDENTIFYING TIME = 0.144 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	1.0	0.2356816761	1.0000000000	1.0158812377	-0.0158812377
0.16	1.0	0.3486514665	0.8521437890	0.8551938887	-0.0030500997
0.32	-1.0	0.2911916615	0.7261490371	0.7289963730	-0.0028473359
0.48	1.0	0.2540466860	0.6187833918	0.6206749108	-0.0018915190
0.64	1.0	0.3643010956	0.5272924240	0.5289337797	-0.0016413556
0.80	1.0	0.4582537060	0.4493289641	0.4507531707	-0.0014242066
0.96	-1.0	0.3845885292	0.3828928860	0.3836196357	-0.0007267497
1.12	-1.0	0.1799079363	0.3262797946	0.3269252883	-0.0006454937
1.28	-1.0	0.0054906405	0.2780373004	0.2786099291	-0.0005726286
1.44	1.0	0.0105883354	0.2369277587	0.2369578316	-0.0000300729
1.60	-1.0	0.0031132640	0.2018965180	0.2014639320	0.0004325860
1.76	1.0	0.0085624688	0.1720448638	0.1717021447	0.0003427191
1.92	-1.0	0.0013869344	0.1466069621	0.1463121533	0.0002948089
2.08	1.0	0.0070913877	0.1249302122	0.1246758747	0.0002543375
2.24	1.0	0.1538596721	0.1064585044	0.1062713083	0.0001871961
2.40	-1.0	0.1252010437	0.0907179533	0.0900678978	0.0006500555
2.56	1.0	0.1125988120	0.0773047404	0.0768059966	0.0004987438
2.72	-1.0	0.0900408581	0.0658747544	0.0649885065	0.0008862479
2.88	-1.0	-0.0710890321	0.0561347628	0.0549182741	0.0012164888
3.04	-1.0	-0.2083948672	0.0478348895	0.0468537614	0.0009811281
3.20	-1.0	-0.3253991818	0.0407622040	0.0394322408	0.0013299632
3.36	1.0	-0.2713773716	0.0347352589	0.0336607973	0.0010744617
3.52	1.0	-0.0834357516	0.0295994352	0.0281929462	0.0014064890
3.68	-1.0	-0.0770087777	0.0252229748	0.0240543094	0.0011686654
3.84	-1.0	-0.2134393416	0.0214936013	0.0204912485	0.0010023528
4.00	1.0	-0.1759714891	0.0183156389	0.0174880231	0.0008276158
4.16	-1.0	-0.1558625317	0.0156075579	0.0144407149	0.0011668431
4.32	-1.0	-0.2806340784	0.0132998835	0.0118768733	0.0014230103
4.48	1.0	-0.2332310667	0.0113334132	0.0096570081	0.0016764050
4.64	1.0	-0.0509296148	0.0096576976	0.0082745585	0.0013831391
4.80	1.0	0.1044174352	0.0082297470	0.0067140717	0.0015156753

G(T) = 1./EXP(T)
USING B.M.L.S.

INTERVAL = 4 DTIME = 0.16 N = 31 A = 1.00
CORRELATION TIME = 0.394 SEC IDENTIFYING TIME = 0.577 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	1.0	0.1884824692	1.0000000000	1.0947832542	-0.0947832542
0.04	1.0	0.2203018732	0.9607894392	0.9553272287	0.0054622105
0.08	1.0	0.2508736205	0.9231163464	0.9227760665	0.0003402799
0.12	1.0	0.2802466325	0.8869204367	0.8843767353	0.0025437014
0.16	1.0	0.3084679123	0.8521437890	0.8753067744	-0.0231629854
0.20	1.0	0.3355826198	0.8187307531	0.8151677730	0.0035629801
0.24	1.0	0.3616341444	0.7866278611	0.7850075507	0.0016203104
0.28	1.0	0.3866641741	0.7557837415	0.7524980461	0.0032856954
0.32	-1.0	0.3711107690	0.7261490371	0.7474660552	-0.0213170182
0.36	-1.0	0.3173494002	0.6976763261	0.6934416772	0.0042346489
0.40	-1.0	0.2656960449	0.6703200460	0.6679769429	0.0023431032
0.44	-1.0	0.2160680466	0.6440364211	0.6401334347	0.0039029864
0.48	1.0	0.2079879833	0.6187833918	0.6384089614	-0.0196255696
0.52	1.0	0.2390425652	0.5945205480	0.5897578784	0.0047626696
0.56	1.0	0.2688794795	0.5712090639	0.5682970457	0.0029120181
0.60	1.0	0.2975464717	0.5488116361	0.5443004434	0.0045111927
0.64	1.0	0.3250894150	0.5272924240	0.5474307408	-0.0201383167
0.68	1.0	0.3515523840	0.5066169924	0.5012486059	0.0053683865
0.72	1.0	0.3769777252	0.4867522560	0.4833354004	0.0034168556
0.76	1.0	0.4014061246	0.4676664270	0.4625930629	0.0050733641
0.80	1.0	0.4248766726	0.4493289641	0.4700255113	-0.0206965472
0.84	1.0	0.4474269274	0.4317105234	0.4257813736	0.0059291498
0.88	1.0	0.4690929740	0.4147829117	0.4108888805	0.0038940312
0.92	1.0	0.4899094827	0.3985190411	0.3930487974	0.0054702437
0.96	-1.0	0.4703077711	0.3828928860	0.4021111449	-0.0192182589
1.00	-1.0	0.4126568323	0.3678794412	0.3616269381	0.0062525030
1.04	-1.0	0.3572664191	0.3534546820	0.3491883907	0.0042662913
1.08	-1.0	0.3040478951	0.3395955256	0.3337060186	0.0058895071
1.12	-1.0	0.2529160992	0.3262797946	0.3461923350	-0.0199125403
1.16	-1.0	0.2037892098	0.3134861809	0.3068023773	0.0066838036
1.20	-1.0	0.1565886132	0.3011942119	0.2965906605	0.0046035514
1.24	-1.0	0.1112387786	0.2893842179	0.2830935460	0.0062906720
1.28	-1.0	0.0676671363	0.2780373004	0.2986627647	-0.0206254643
1.32	-1.0	0.0258039626	0.2671353020	0.2600393631	0.0070959389
1.36	-1.0	-0.0144177326	0.2566607770	0.2517228487	0.0049379283
1.40	-1.0	-0.0530623126	0.2465969639	0.2400466248	0.0065503392
1.44	1.0	-0.0505896235	0.2369277587	0.2562066323	-0.0192788736
1.48	1.0	-0.0093960687	0.2276376884	0.2203463183	0.0072913701
1.52	1.0	0.0301822638	0.2187118870	0.2135090615	0.0052028254
1.56	1.0	0.0682087077	0.2101360712	0.2034083506	0.0067277206
1.60	-1.0	0.0651421200	0.2018965180	0.2199066065	-0.0180100885
1.64	-1.0	0.0233779536	0.1939800423	0.1865667420	0.0074133003
1.68	-1.0	-0.0167486165	0.1863739760	0.1809924029	0.0053815732
1.72	-1.0	-0.0553018012	0.1790661479	0.1721050898	0.0069610581
1.76	1.0	-0.0527413005	0.1720448638	0.1909278693	-0.0188830055
1.80	1.0	-0.0114633772	0.1652988882	0.1576259184	0.0076729698
1.84	1.0	0.0281960156	0.1588174261	0.1532634952	0.0055539309
1.88	1.0	0.0663003414	0.1525901058	0.1453863067	0.0072037991
1.92	-1.0	0.0633085818	0.1466069621	0.1663552378	-0.0197482757
1.96	-1.0	0.0216163095	0.1408584209	0.1329183004	0.0079401205
2.00	-1.0	-0.0184411855	0.1353352832	0.1296018193	0.0057334640
2.04	-1.0	-0.0569280036	0.1300287109	0.1225752758	0.0074534351
2.08	1.0	-0.0543037387	0.1249302122	0.1455371336	-0.0206069214
2.12	1.0	-0.0129645513	0.1200316285	0.1118179924	0.0082136361

G(T) = 1./EXP(T)
USING B.M.L.S.

INTERVAL = 1 DTIME = 0.04 N = 127 A = 1.00
CORRELATION TIME = 1.605 SEC IDENTIFYING TIME = 1.764 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	0.0048480123	1.0000000000	1.0164182207	-0.0164182207
0.04	1.0	0.0050500050	0.9607894392	0.9651067077	-0.0043172686
0.08	1.0	0.0440618988	0.9231163464	0.9281862186	-0.0050698722
0.12	1.0	0.0815441144	0.8869204367	0.8916352359	-0.0047147992
0.16	1.0	0.1175566313	0.8521437890	0.8566232973	-0.0044795083
0.20	1.0	0.1521570772	0.8187307531	0.8229698434	-0.0042390903
0.24	1.0	0.1854008202	0.7866278611	0.7907079921	-0.0040801310
0.28	1.0	0.2173410574	0.7557837415	0.7596403854	-0.0038566439
0.32	-1.0	0.2084269067	0.7261490371	0.7297914236	-0.0036423866
0.36	-1.0	0.1610444634	0.6976763261	0.7011795000	-0.0035031739
0.40	-1.0	0.1155199123	0.6703200460	0.6736849707	-0.0033649246
0.44	-1.0	0.0717804044	0.6440364211	0.6472735155	-0.0032370944
0.48	1.0	0.0693579405	0.6187833918	0.6218259895	-0.0030425977
0.52	1.0	0.1058482841	0.5945205480	0.5974519047	-0.0029313567
0.56	1.0	0.1409078209	0.5712090639	0.5739579565	-0.0027488926
0.60	-1.0	0.1349906602	0.5488116361	0.5514563502	-0.0026447141
0.64	1.0	0.1300896867	0.5272924240	0.5298370406	-0.0025446166
0.68	1.0	0.1641987045	0.5066169924	0.5089943466	-0.0023773542
0.72	1.0	0.1969702885	0.4867522560	0.4890440282	-0.0022917722
0.76	1.0	0.2284568804	0.4676664270	0.4698043795	-0.0021379524
0.80	-1.0	0.2191068720	0.4493289641	0.4513236679	-0.0019947038
0.84	-1.0	0.1713056613	0.4317105234	0.4335670426	-0.0018565192
0.88	1.0	0.1649807562	0.4147829117	0.4165072179	-0.0017243062
0.92	-1.0	0.1581196823	0.3985190411	0.4001117737	-0.0015927326
0.96	1.0	0.1523118068	0.3828928860	0.3844308475	-0.0015379615
1.00	1.0	0.1855494828	0.3678794412	0.3692891039	-0.0014096627
1.04	-1.0	0.1778818975	0.3534546820	0.3548172141	-0.0013625321
1.08	-1.0	0.1316971412	0.3395955256	0.3408366006	-0.0012410750
1.12	1.0	0.1269253085	0.3262797946	0.3274803123	-0.0012005177
1.16	-1.0	0.1215564099	0.3134861809	0.3145720568	-0.0010858759
1.20	-1.0	0.0775802076	0.3011942119	0.3022415797	-0.0010473678
1.24	1.0	0.0749303301	0.2893842179	0.2903900926	-0.0010058747
1.28	-1.0	0.0716001838	0.2780373004	0.2790033094	-0.0009660090
1.32	-1.0	0.0295827931	0.2671353020	0.2680674985	-0.0009321965
1.36	-1.0	-0.0107870721	0.2566607770	0.2574888980	-0.0008281211
1.40	-1.0	-0.0495740123	0.2465969639	0.2474002123	-0.0008032484
1.44	-1.0	-0.0868400948	0.2369277587	0.2376360157	-0.0007082570
1.48	-1.0	-0.1226449534	0.2276376884	0.2282547198	-0.0006170314
1.52	1.0	-0.1174438900	0.2187118870	0.2193118967	-0.0006000097
1.56	-1.0	-0.1132309352	0.2101360712	0.2106486410	-0.0005125698
1.60	-1.0	-0.1480009941	0.2018965180	0.2023295264	-0.0004330084
1.64	-1.0	-0.1814076994	0.1939800423	0.1943365644	-0.0003565221
1.68	1.0	-0.1739025158	0.1863739760	0.1866530645	-0.0002790885
1.72	-1.0	-0.1674757866	0.1790661479	0.1793374743	-0.0002713264
1.76	-1.0	-0.2001188744	0.1720448638	0.1723087368	-0.0002638730
1.80	1.0	-0.1918800151	0.1652988882	0.1654889195	-0.0001900312
1.84	1.0	-0.1451463848	0.1588174261	0.1589409605	-0.0001235344
1.88	-1.0	-0.1398471996	0.1525901058	0.1526453051	-0.0000551993
1.92	-1.0	-0.1735736198	0.1466069621	0.1466631412	-0.0000561790
1.96	-1.0	-0.2059776082	0.1408584209	0.1409160452	-0.0000576243
2.00	1.0	-0.1975090246	0.1353352832	0.1353231167	0.0000121666
2.04	-1.0	-0.1901566710	0.1300287109	0.1300251194	0.0000035915
2.08	1.0	-0.1823084353	0.1249302122	0.1248587750	0.0000714372
2.12	1.0	-0.1359501120	0.1200316285	0.1199706358	0.0000609927

G(T) = 1./EXP(T)
USING SHIFTED AUTOCORRELATION FUNCTION
INTERVAL = 1 DTIME = 0,16 N = 31 A = 1.00
CORRELATION TIME = 0,097 SEC IDENTIFYING TIME = 0,140 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0,00	1,0	0,2356816761	1.0000000000	1,0158812374	-0,0158812374
0,16	1,0	0,3486514665	0.8521437890	0,8551938885	-0,0030500995
0,32	-1,0	0,2911916615	0.7261490371	0,7289963728	-0,0028473358
0,48	1,0	0,2540466860	0.6187833918	0,6206749106	-0,0018915188
0,64	1,0	0,3643010956	0.5272924240	0,5289337795	-0,0016413555
0,80	1,0	0,4582537060	0.4493289641	0,4507531706	-0,0014242065
0,96	-1,0	0,3845885292	0.3828928860	0,3836196355	-0,0007267496
1,12	-1,0	0,1799079363	0.3262797946	0,3269252882	-0,0006454936
1,28	-1,0	0,0054906405	0.2780373004	0,2786099289	-0,0005726285
1,44	1,0	0,0105883354	0.2369277587	0,2369578315	-0,0000300728
1,60	-1,0	0,0031132640	0.2018965180	0,2014639319	0,0004325861
1,76	1,0	0,0085624688	0.1720448638	0,1717021446	0,0003427192
1,92	-1,0	0,0013869344	0.1466069621	0,1463121532	0,0002948090
2,08	1,0	0,0070913877	0.1249302122	0,1246758746	0,0002543376
2,24	1,0	0,1538596721	0.1064585044	0,1062713081	0,0001871962
2,40	-1,0	0,1252010437	0.0907179533	0,0900678976	0,0006500557
2,56	1,0	0,1125988120	0.0773047404	0,0768059965	0,0004987440
2,72	-1,0	0,0900408581	0.0658747544	0,0649885064	0,0008862481
2,88	-1,0	-0,0710890321	0.0561347628	0,0549182739	0,0012164889
3,04	-1,0	-0,2083948672	0.0478348895	0,0468537613	0,0009811282
3,20	-1,0	-0,3253991818	0.0407622040	0,0394322407	0,0013299633
3,36	1,0	-0,2713773716	0.0347352589	0,0336607972	0,0010744618
3,52	1,0	-0,0834357516	0.0295994352	0,0281929461	0,0014064891
3,68	-1,0	-0,0770087777	0.0252229748	0,0240543093	0,0011686656
3,84	-1,0	-0,2134393416	0.0214936013	0,0204912484	0,0010023530
4,00	1,0	-0,1759714891	0.0183156389	0,0174880230	0,0008276159
4,16	-1,0	-0,1558625317	0.0156075579	0,0144407147	0,0011668432
4,32	-1,0	-0,2806340784	0.0132998835	0,0118768732	0,0014230104
4,48	1,0	-0,2332310667	0.0113334132	0,0096570080	0,0016764052
4,64	1,0	-0,0509296148	0.0096576976	0,0082745584	0,0013831393
4,80	1,0	0,1044174352	0.0082297470	0,0067140716	0,0015156755

G(T) = 1./EXP(T)
USING SHIFTED AUTOCORRELATION FUNCTION
INTERVAL = 4 DTIME = 0.16 N = 31 A = 1.00
CORRELATION TIME = 0.387 SEC IDENTIFYING TIME = 0.554 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	1.0	0.1884824692	1.0000000000	1.0926980574	-0.0926980574
0.04	1.0	0.2203018732	0.9607894392	0.9556653262	0.0051241130
0.08	1.0	0.2508736205	0.9231163464	0.9229882122	0.0001281342
0.12	1.0	0.2802466325	0.8869204367	0.8846924158	0.0022280209
0.16	1.0	0.3084679123	0.8521437890	0.8740700990	-0.0219263101
0.20	1.0	0.3355826198	0.8187307531	0.8157633497	0.0029674034
0.24	1.0	0.3616341444	0.7866278611	0.7854492504	0.0011786107
0.28	1.0	0.3866641741	0.7557837415	0.7531024080	0.0026813335
0.32	-1.0	0.3711107690	0.7261490371	0.7454089842	-0.0192599471
0.36	-1.0	0.3173494002	0.6976763261	0.6943474460	0.0033288801
0.40	-1.0	0.2656960449	0.6703200460	0.6686395361	0.0016805100
0.44	-1.0	0.2160680466	0.6440364211	0.6410271707	0.0030092504
0.48	1.0	0.2079879833	0.6187833918	0.6355314248	-0.0167480330
0.52	1.0	0.2390425652	0.5945205480	0.5909738456	0.0035467023
0.56	1.0	0.2688794795	0.5712090639	0.5691805318	0.0020285320
0.60	1.0	0.2975464717	0.5488116361	0.5454835536	0.0033280825
0.64	1.0	0.3250894150	0.5272924240	0.5437327386	-0.0164403146
0.68	1.0	0.3515523840	0.5066169924	0.5027747717	0.0038422207
0.72	1.0	0.3769777252	0.4867522560	0.4844397794	0.0023124766
0.76	1.0	0.4014061246	0.4676664270	0.4640655473	0.0036008797
0.80	1.0	0.4248766726	0.4493289641	0.4655070435	-0.0161780793
0.84	1.0	0.4474269274	0.4317105234	0.4276177379	0.0040927855
0.88	1.0	0.4690929740	0.4147829117	0.4122141523	0.0025687593
0.92	1.0	0.4899094827	0.3985190411	0.3948106560	0.0037083851
0.96	-1.0	0.4703077711	0.3828928860	0.3967722114	-0.0138793254
1.00	-1.0	0.4126568323	0.3678794412	0.3637735010	0.0041059402
1.04	-1.0	0.3572664191	0.3534546820	0.3507345555	0.0027201265
1.08	-1.0	0.3040478951	0.3395955256	0.3357572514	0.0038382742
1.12	-1.0	0.2529160992	0.3262797946	0.3400329358	-0.0137531412
1.16	-1.0	0.2037892098	0.3134861809	0.3092591387	0.0042270422
1.20	-1.0	0.1565886132	0.3011942119	0.2983577182	0.0028364937
1.24	-1.0	0.1112387786	0.2893842179	0.2854341530	0.0039500649
1.28	-1.0	0.0676671363	0.2780373004	0.2916828999	-0.0136455994
1.32	-1.0	0.0258039626	0.2671353020	0.2628063230	0.0043289790
1.36	-1.0	-0.0144177326	0.2566607770	0.2537107994	0.0029499776
1.40	-1.0	-0.0530623126	0.2465969639	0.2426766061	0.0039203579
1.44	1.0	-0.0505896235	0.2369277587	0.2484063018	-0.0114785431
1.48	1.0	-0.0093960687	0.2276376884	0.2234234766	0.0042142117
1.52	1.0	0.0301822638	0.2187118870	0.2157179051	0.0029939818
1.56	1.0	0.0682087077	0.2101360712	0.2063277061	0.0038083651
1.60	-1.0	0.0651421200	0.2018965180	0.2112858104	-0.0093892924
1.64	-1.0	0.0233779536	0.1939800423	0.1899540988	0.0040259435
1.68	-1.0	-0.0167486165	0.1863739760	0.1834221394	0.0029518367
1.72	-1.0	-0.0553018012	0.1790661479	0.1753138195	0.0037523284
1.76	1.0	-0.0527413005	0.1720448638	0.1814866076	-0.0094417438
1.80	1.0	-0.0114633772	0.1652988882	0.1613234738	0.0039754144
1.84	1.0	0.0281960156	0.1588174261	0.1559141246	0.0029033015
1.88	1.0	0.0663003414	0.1525901058	0.1488844106	0.0037056951
1.92	-1.0	0.0633085818	0.1466069621	0.1560935104	-0.0094865483
1.96	-1.0	0.0216163095	0.1408584209	0.1369260542	0.0039323667
2.00	-1.0	-0.0184411855	0.1353352832	0.1324733417	0.0028619416
2.04	-1.0	-0.0569280036	0.1300287109	0.1263627539	0.0036659569
2.08	1.0	-0.0543037387	0.1249302122	0.1344549405	-0.0095247283
2.12	1.0	-0.0129645513	0.1200316285	0.1161359448	0.0038956837

G(T) = 1./EXP(T)
USING SHIFTED AUTOCORRELATION FUNCTION
INTERVAL = 1 DTIME = 0,04 N = 127 A = 1.00
CORRELATION TIME = 1,573 SEC IDENTIFYING TIME = 1,731 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0,00	-1,0	0,0048480123	1.0000000000	1,0164182178	-0,0164182178
0,04	1,0	0,0050500050	0.9607894392	0,9651067068	-0,0043172677
0,08	1,0	0,0440618988	0.9231163464	0,9281862175	-0,0050698711
0,12	1,0	0,0815441144	0.8869204367	0,8916352348	-0,0047147981
0,16	1,0	0,1175566313	0.8521437890	0,8566232962	-0,0044795073
0,20	1,0	0,1521570772	0.8187307531	0,8229698424	-0,0042390893
0,24	1,0	0,1854008202	0.7866278611	0,7907079910	-0,0040801299
0,28	1,0	0,2173410574	0.7557837415	0,7596403843	-0,0038566428
0,32	-1,0	0,2084269067	0.7261490371	0,7297914226	-0,0036423855
0,36	-1,0	0,1610444634	0.6976763261	0,7011794990	-0,0035031729
0,40	-1,0	0,1155199123	0.6703200460	0,6736849697	-0,0033649236
0,44	-1,0	0,0717804044	0.6440364211	0,6472735144	-0,0032370934
0,48	1,0	0,0693579405	0.6187833918	0,6218259885	-0,0030425967
0,52	1,0	0,1058482841	0.5945205480	0,5974519036	-0,0029313557
0,56	1,0	0,1409078209	0.5712090639	0,5739579555	-0,0027488916
0,60	-1,0	0,1349906602	0.5488116361	0,5514563492	-0,0026447131
0,64	1,0	0,1300896867	0.5272924240	0,5298370396	-0,0025446155
0,68	1,0	0,1641987045	0.5066169924	0,5089943455	-0,0023773532
0,72	1,0	0,1969702885	0.4867522560	0,4890440272	-0,0022917712
0,76	1,0	0,2284568804	0.4676664270	0,4698043784	-0,0021379514
0,80	-1,0	0,2191068720	0.4493289641	0,4513236670	-0,0019947029
0,84	-1,0	0,1713056613	0.4317105234	0,4335670416	-0,0018565182
0,88	1,0	0,1649807562	0.4147829117	0,4165072169	-0,0017243052
0,92	-1,0	0,1581196823	0.3985190411	0,4001117727	-0,0015927316
0,96	1,0	0,1523118068	0.3828928860	0,3844308465	-0,0015379605
1,00	1,0	0,1855494828	0.3678794412	0,3692891029	-0,0014096617
1,04	-1,0	0,1778818975	0.3534546820	0,3548172131	-0,0013625311
1,08	-1,0	0,1316971412	0.3395955256	0,3408365996	-0,0012410739
1,12	1,0	0,1269253085	0.3262797946	0,3274803113	-0,0012005167
1,16	-1,0	0,1215564099	0.3134861809	0,3145720557	-0,0010858748
1,20	-1,0	0,0775802076	0.3011942119	0,3022415787	-0,0010473668
1,24	1,0	0,0749303301	0.2893842179	0,2903900915	-0,0010058736
1,28	-1,0	0,0716001838	0.2780373004	0,2790033083	-0,0009660079
1,32	-1,0	0,0295827931	0.2671353020	0,2680674974	-0,0009321954
1,36	-1,0	-0,0107870721	0.2566607770	0,2574888970	-0,0008281200
1,40	-1,0	-0,0495740123	0.2465969639	0,2474002113	-0,0008032474
1,44	-1,0	-0,0868400948	0.2369277587	0,2376360146	-0,0007082559
1,48	-1,0	-0,1226449534	0.2276376884	0,2282547187	-0,0006170303
1,52	1,0	-0,1174438900	0.2187118870	0,2193118956	-0,0006000086
1,56	-1,0	-0,1132309352	0.2101360712	0,2106486399	-0,0005125687
1,60	-1,0	-0,1480009941	0.2018965180	0,2023295253	-0,0004330073
1,64	-1,0	-0,1814076994	0.1939800423	0,1943365633	-0,0003565210
1,68	1,0	-0,1739025158	0.1863739760	0,1866530635	-0,0002790874
1,72	-1,0	-0,1674757866	0.1790661479	0,1793374733	-0,0002713253
1,76	-1,0	-0,2001188744	0.1720448638	0,1723087357	-0,0002638719
1,80	1,0	-0,1918800151	0.1652988882	0,1654889184	-0,0001900301
1,84	1,0	-0,1451463848	0.1588174261	0,1589409594	-0,0001235333
1,88	-1,0	-0,1398471996	0.1525901058	0,1526453040	-0,0000551982
1,92	-1,0	-0,1735736198	0.1466069621	0,1466631401	-0,0000561780
1,96	-1,0	-0,2059776082	0.1408584209	0,1409160441	-0,0000576232
2,00	1,0	-0,1975090246	0.1353352832	0,1353231156	0,0000121676
2,04	-1,0	-0,1901566710	0.1300287109	0,1300251183	0,0000035926
2,08	1,0	-0,1823084353	0.1249302122	0,1248587740	0,0000714382
2,12	1,0	-0,1359501120	0.1200316285	0,1199706347	0,0000609938

G(T) = 1./EXP(T)-1./EXP(10T)
USING B.M.L.S.

INTERVAL = 1 DTIME = 0.16 N = 31 A = 1.00
CORRELATION TIME = 0.099 SEC IDENTIFYING TIME = 0.150 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	1.0	0.1389959420	0.0000000000	0.0638497842	-0.0638497842
0.16	1.0	0.2514098128	0.6502472710	0.6609452014	-0.0106979304
0.32	-1.0	0.3010889770	0.6853868331	0.6888787882	-0.0034919551
0.48	1.0	0.2265148528	0.6105536448	0.6126224666	-0.0020688219
0.64	1.0	0.2810213737	0.5256308668	0.5273022315	-0.0016713647
0.80	1.0	0.3637186795	0.4489935015	0.4504242688	-0.0014307673
0.96	-1.0	0.3950323032	0.3828251572	0.3835531824	-0.0007280252
1.12	-1.0	0.2597376386	0.3262661204	0.3269118762	-0.0006457558
1.28	-1.0	0.0993291200	0.2780345397	0.2786072208	-0.0005726811
1.44	1.0	0.0000039309	0.2369272013	0.2369572848	-0.0000300835
1.60	-1.0	0.0305063764	0.2018964055	0.2014638216	0.0004325839
1.76	1.0	-0.0154370239	0.1720448411	0.1717021224	0.0003427187
1.92	-1.0	0.0260715871	0.1466069575	0.1463121488	0.0002948088
2.08	1.0	-0.0174549336	0.1249302113	0.1246758738	0.0002543375
2.24	1.0	0.0711827146	0.1064585042	0.1062713081	0.0001871961
2.40	-1.0	0.1380389206	0.0907179533	0.0900678977	0.0006500556
2.56	1.0	0.0856606679	0.0773047404	0.0768059966	0.0004987438
2.72	-1.0	0.1141322073	0.0658747544	0.0649885065	0.0008862479
2.88	-1.0	0.0114960681	0.0561347628	0.0549182741	0.0012164888
3.04	-1.0	-0.1140000824	0.0478348895	0.0468537614	0.0009811281
3.20	-1.0	-0.2286200628	0.0407622040	0.0394322408	0.0013299632
3.36	1.0	-0.2813680711	0.0347352589	0.0336607973	0.0010744617
3.52	1.0	-0.1631739797	0.0295994352	0.0281929462	0.0014064890
3.68	-1.0	-0.0635775815	0.0252229748	0.0240543094	0.0011686654
3.84	-1.0	-0.1330064893	0.0214936013	0.0204912485	0.0010023528
4.00	1.0	-0.1892624430	0.0183156389	0.0174880231	0.0008276158
4.16	-1.0	-0.1290158623	0.0156075579	0.0144407149	0.0011668431
4.32	-1.0	-0.1974926887	0.0132998835	0.0118768733	0.0014230103
4.48	1.0	-0.2459751763	0.0113334132	0.0096570081	0.0016764050
4.64	1.0	-0.1312237468	0.0096576976	0.0082745585	0.0013831391
4.80	1.0	0.0104851889	0.0082297470	0.0067140717	0.0015156753

G(T) = 1./EXP(T)-1./EXP(10T)
USING B.M.L.S.

INTERVAL = 4 DTIME = 0.16 N = 31 A = 1.00
CORRELATION TIME = 0.394 SEC IDENTIFYING TIME = 0.550 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	1.0	0.0899500873	0.0000000000	0.0963402820	-0.0963402820
0.04	1.0	0.1213405297	0.2904693931	0.2862398189	0.0042295742
0.08	1.0	0.1516247354	0.4737873823	0.4741869604	-0.0003995781
0.12	1.0	0.1808050025	0.5857262248	0.5836842551	0.0020419697
0.16	1.0	0.2088970815	0.6502472710	0.6737459467	-0.0234986757
0.20	1.0	0.2359251831	0.6833954699	0.6800575665	0.0033379034
0.24	1.0	0.2619186541	0.6959099078	0.6944404651	0.0014694427
0.28	1.0	0.2869097693	0.6949736788	0.6917891136	0.0031845653
0.32	-1.0	0.3075237757	0.6853868331	0.7067716411	-0.0213848080
0.36	-1.0	0.3076388767	0.6703526036	0.6661633956	0.0041892080
0.40	-1.0	0.2920999991	0.6520044071	0.6496917638	0.0023126434
0.44	-1.0	0.2666802592	0.6317590812	0.6278765123	0.0038825689
0.48	1.0	0.2386339801	0.6105536448	0.6301929011	-0.0196392564
0.52	1.0	0.2266720784	0.5890039836	0.5842504886	0.0047534949
0.56	1.0	0.2276741814	0.5675112001	0.5646053315	0.0029058687
0.60	1.0	0.2370126216	0.5463328839	0.5418258133	0.0045070706
0.64	1.0	0.2515992490	0.5256308668	0.5457719469	-0.0201410801
0.68	1.0	0.2693773399	0.5055032172	0.5001366834	0.0053665338
0.72	1.0	0.2889810331	0.4860056702	0.4825900558	0.0034156144
0.76	1.0	0.3095070650	0.4671659756	0.4620934436	0.0050725320
0.80	1.0	0.3303617780	0.4489935015	0.4696906067	-0.0206971052
0.84	1.0	0.3511585861	0.4314856561	0.4255568807	0.0059287754
0.88	1.0	0.3716492622	0.4146321786	0.4107383976	0.0038937810
0.92	1.0	0.3916778966	0.3984180017	0.3929479260	0.0054700757
0.96	-1.0	0.4077415537	0.3828251572	0.4020435287	-0.0192183715
1.00	-1.0	0.4036305553	0.3678340412	0.3615816143	0.0062524269
1.04	-1.0	0.3841290375	0.3534242495	0.3491580082	0.0042662412
1.08	-1.0	0.3549675595	0.3395751261	0.3336856530	0.0058894731
1.12	-1.0	0.3199616838	0.3262661204	0.3461786835	-0.0199125631
1.16	-1.0	0.2816443219	0.3134770148	0.3067932271	0.0066837877
1.20	-1.0	0.2416895683	0.3011880677	0.2965845259	0.0046035418
1.24	-1.0	0.2011967675	0.2893800993	0.2830894343	0.0062906650
1.28	-1.0	0.1608808924	0.2780345397	0.2986600085	-0.0206254688
1.32	-1.0	0.1212001246	0.2671334514	0.2600375160	0.0070959354
1.36	-1.0	0.0824413399	0.2566595365	0.2517216097	0.0049379267
1.40	-1.0	0.0447773781	0.2465961324	0.2400457948	0.0065503377
1.44	1.0	0.0117138985	0.2369272013	0.2562060758	-0.0192788745
1.48	1.0	-0.0005458817	0.2276373148	0.2203459457	0.0072913691
1.52	1.0	0.0032016088	0.2187116365	0.2135088110	0.0052028255
1.56	1.0	0.0172099210	0.2101359033	0.2034081830	0.0067277203
1.60	-1.0	0.0342369949	0.2018964055	0.2199064942	-0.0180100887
1.64	-1.0	0.0355747415	0.1939799669	0.1865666671	0.0074132997
1.68	-1.0	0.0243402478	0.1863739255	0.1809923519	0.0053815736
1.72	-1.0	0.0051540010	0.1790661140	0.1721050560	0.0069610580
1.76	1.0	-0.0154969484	0.1720448411	0.1909278466	-0.0188830055
1.80	1.0	-0.0194108541	0.1652988730	0.1576259036	0.0076729694
1.84	1.0	-0.0100444503	0.1588174159	0.1532634846	0.0055539313
1.88	1.0	0.0077538778	0.1525900989	0.1453862999	0.0072037990
1.92	-1.0	0.0273440976	0.1466069575	0.1663552332	-0.0197482756
1.96	-1.0	0.0304217075	0.1408584178	0.1329182977	0.0079401202
2.00	-1.0	0.0203743621	0.1353352812	0.1296018168	0.0057334644
2.04	-1.0	0.0020039488	0.1300287095	0.1225752745	0.0074534350
2.08	1.0	-0.0180808536	0.1249302113	0.1455371326	-0.0206069213
2.12	1.0	-0.0215967380	0.1200316279	0.1118179922	0.0082136357

G(T) = 1./EXP(T)-1./EXP(10T)
USING B.M.L.S.

INTERVAL = 1 DTIME = 0.04 N = 127 A = 1.00
CORRELATION TIME = 1.605 SEC IDENTIFYING TIME = 1.792 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	0.0440251325	0.0000000000	0.0179738841	-0.0179738841
0.04	1.0	0.0280308301	0.2904693931	0.2960193607	-0.0055499676
0.08	1.0	0.0265532938	0.4737873823	0.4795971033	-0.0058097210
0.12	1.0	0.0368946327	0.5857262248	0.5909427568	-0.0052165320
0.16	1.0	0.0547140759	0.6502472710	0.6550624695	-0.0048151985
0.20	1.0	0.0771193398	0.6833954699	0.6878596369	-0.0044641671
0.24	1.0	0.1021884079	0.6959099078	0.7001409068	-0.0042309990
0.28	1.0	0.1286489966	0.6949736788	0.6989314532	-0.0039577743
0.32	-1.0	0.1522552243	0.6853868331	0.6890970093	-0.0037101762
0.36	-1.0	0.1563045715	0.6703526036	0.6739012184	-0.0035486148
0.40	-1.0	0.1452557805	0.6520044071	0.6553997918	-0.0033953847
0.44	-1.0	0.1246260658	0.6317590812	0.6350165935	-0.0032575124
0.48	1.0	0.1015010627	0.6105536448	0.6136099290	-0.0030562842
0.52	1.0	0.0944813505	0.5890039836	0.5919445147	-0.0029405312
0.56	1.0	0.1003752246	0.5675112001	0.5702662427	-0.0027550426
0.60	-1.0	0.1111012324	0.5463328839	0.5489817205	-0.0026488366
0.64	1.0	0.1107957404	0.5256308668	0.5281782467	-0.0025473799
0.68	1.0	0.1183524727	0.5055032172	0.5078824239	-0.0023792066
0.72	1.0	0.1333255276	0.4860056702	0.4882986842	-0.0022930140
0.76	1.0	0.1528814085	0.4671659756	0.4693047605	-0.0021387849
0.80	-1.0	0.1717275022	0.4489935015	0.4509887634	-0.0019952619
0.84	-1.0	0.1724594327	0.4314856561	0.4333425494	-0.0018568933
0.88	1.0	0.1624737684	0.4146321786	0.4163567357	-0.0017245571
0.92	-1.0	0.1597195820	0.3984180017	0.4000109025	-0.0015929008
0.96	1.0	0.1501038678	0.3828251572	0.3843632316	-0.0015380743
1.00	1.0	0.1511563442	0.3678340412	0.3692437796	-0.0014097384
1.04	-1.0	0.1581078712	0.3534242495	0.3547868324	-0.0013625829
1.08	-1.0	0.1513553278	0.3395751261	0.3408162352	-0.0012411091
1.12	1.0	0.1368222010	0.3262661204	0.3274666611	-0.0012005406
1.16	-1.0	0.1314708793	0.3134770148	0.3145629061	-0.0010858913
1.20	-1.0	0.1171391879	0.3011880677	0.3022354459	-0.0010473782
1.24	1.0	0.0981671237	0.2893800993	0.2903859810	-0.0010058817
1.28	-1.0	0.0904566563	0.2780345397	0.2790005534	-0.0009660137
1.32	-1.0	0.0751357774	0.2671334514	0.2680656511	-0.0009321997
1.36	-1.0	0.0526611192	0.2566595365	0.2574876598	-0.0008281233
1.40	-1.0	0.0258696950	0.2465961324	0.2473993823	-0.0008032499
1.44	-1.0	-0.0033555527	0.2369272013	0.2376354594	-0.0007082581
1.48	-1.0	-0.0337704785	0.2276373148	0.2282543469	-0.0006170321
1.52	1.0	-0.0611499318	0.2187116365	0.2193116468	-0.0006000103
1.56	-1.0	-0.0722155826	0.2101359033	0.2106484736	-0.0005125702
1.60	-1.0	-0.0875944682	0.2018964055	0.2023294142	-0.0004330087
1.64	-1.0	-0.1080028815	0.1939799669	0.1943364892	-0.0003565223
1.68	1.0	-0.1279781788	0.1863739255	0.1866530142	-0.0002790887
1.72	-1.0	-0.1334113990	0.1790661140	0.1793374406	-0.0002713266
1.76	-1.0	-0.1443717198	0.1720448411	0.1723087143	-0.0002638732
1.80	1.0	-0.1577919638	0.1652988730	0.1654889044	-0.0001900314
1.84	1.0	-0.1552095934	0.1588174159	0.1589409505	-0.0001235346
1.88	-1.0	-0.1433123862	0.1525900989	0.1526452984	-0.0000551995
1.92	-1.0	-0.1429832910	0.1466069575	0.1466631368	-0.0000561792
1.96	-1.0	-0.1525591848	0.1408584178	0.1409160423	-0.0000576245
2.00	1.0	-0.1649819686	0.1353352812	0.1353231147	0.0000121664
2.04	-1.0	-0.1650727494	0.1300287095	0.1300251182	0.0000035913
2.08	1.0	-0.1687745637	0.1249302113	0.1248587742	0.0000714370
2.12	1.0	-0.1597911993	0.1200316279	0.1199706353	0.0000609926

G(T) = 1./EXP(T)-1./EXP(10T)
USING SHIFTED AUTOCORRELATION FUNCTION
INTERVAL = 1 DTIME = 0,16 N = 31 A = 1.00
CORRELATION TIME = 0,097 SEC IDENTIFYING TIME = 0,147 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0,00	1,0	0,1389959420	0.0000000000	0,0638497839	-0,0638497839
0,16	1,0	0,2514098128	0.6502472710	0,6609452013	-0,0106979303
0,32	-1,0	0,3010889770	0.6853868331	0,6888787880	-0,0034919549
0,48	1,0	0,2265148528	0.6105536448	0,6126224665	-0,0020688218
0,64	1,0	0,2810213737	0.5256308668	0,5273022314	-0,0016713646
0,80	1,0	0,3637186795	0.4489935015	0,4504242687	-0,0014307672
0,96	-1,0	0,3950323032	0.3828251572	0,3835531823	-0,0007280251
1,12	-1,0	0,2597376386	0.3262661204	0,3269118761	-0,0006457557
1,28	-1,0	0,0993291200	0.2780345397	0,2786072206	-0,0005726810
1,44	1,0	0,0000039309	0.2369272013	0,2369572847	-0,0000300834
1,60	-1,0	0,0305063764	0.2018964055	0,2014638215	0,0004325840
1,76	1,0	-0,0154370239	0.1720448411	0,1717021223	0,0003427188
1,92	-1,0	0,0260715871	0.1466069575	0,1463121487	0,0002948089
2,08	1,0	-0,0174549336	0.1249302113	0,1246758737	0,0002543376
2,24	1,0	0,0711827146	0.1064585042	0,1062713080	0,0001871962
2,40	-1,0	0,1380389206	0.0907179533	0,0900678976	0,0006500557
2,56	1,0	0,0856606679	0.0773047404	0,0768059965	0,0004987440
2,72	-1,0	0,1141322073	0.0658747544	0,0649885064	0,0008862481
2,88	-1,0	0,0114960681	0.0561347628	0,0549182740	0,0012164889
3,04	-1,0	-0,1140000824	0.0478348895	0,0468537613	0,0009811282
3,20	-1,0	-0,2286200628	0.0407622040	0,0394322407	0,0013299633
3,36	1,0	-0,2813680711	0.0347352589	0,0336607972	0,0010744618
3,52	1,0	-0,1631739797	0.0295994352	0,0281929461	0,0014064891
3,68	-1,0	-0,0635775815	0.0252229748	0,0240543093	0,0011686655
3,84	-1,0	-0,1330064893	0.0214936013	0,0204912484	0,0010023529
4,00	1,0	-0,1892624430	0.0183156389	0,0174880230	0,0008276159
4,16	-1,0	-0,1290158623	0.0156075579	0,0144407148	0,0011668432
4,32	-1,0	-0,1974926887	0.0132998835	0,0118768732	0,0014230104
4,48	1,0	-0,2459751763	0.0113334132	0,0096570080	0,0016764051
4,64	1,0	-0,1312237468	0.0096576976	0,0082745584	0,0013831393
4,80	1,0	0,0104851889	0.0082297470	0,0067140716	0,0015156754

G(T) = 1./EXP(T)-1./EXP(10T)
USING SHIFTED AUTOCORRELATION FUNCTION
INTERVAL = 4 DTIME = 0,16 N = 31 A = 1.00
CORRELATION TIME = 0,387 SEC IDENTIFYING TIME = 0,541 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0,00	1,0	0,0899500873	0.0000000000	0,0942601916	-0,0942601916
0,04	1,0	0,1213405297	0.2904693931	0,2865776817	0,0038917114
0,08	1,0	0,1516247354	0.4737873823	0,4743991417	-0,0006117594
0,12	1,0	0,1808050025	0.5857262248	0,5839999323	0,0017262925
0,16	1,0	0,2088970815	0.6502472710	0,6725092719	-0,0222620009
0,20	1,0	0,2359251831	0.6833954699	0,6806531428	0,0027423271
0,24	1,0	0,2619186541	0.6959099078	0,6948821650	0,0010277428
0,28	1,0	0,2869097693	0.6949736788	0,6923934754	0,0025802034
0,32	-1,0	0,3075237757	0.6853868331	0,7047145703	-0,0193277372
0,36	-1,0	0,3076388767	0.6703526036	0,6670691640	0,0032834396
0,40	-1,0	0,2920999991	0.6520044071	0,6503543572	0,0016500499
0,44	-1,0	0,2666802592	0.6317590812	0,6287702483	0,0029888329
0,48	1,0	0,2386339801	0.6105536448	0,6273153647	-0,0167617199
0,52	1,0	0,2266720784	0.5890039836	0,5854664555	0,0035375281
0,56	1,0	0,2276741814	0.5675112001	0,5654888178	0,0020223824
0,60	1,0	0,2370126216	0.5463328839	0,5430089235	0,0033239604
0,64	1,0	0,2515992490	0.5256308668	0,5420739449	-0,0164430781
0,68	1,0	0,2693773399	0.5055032172	0,5016628488	0,0038403684
0,72	1,0	0,2889810331	0.4860056702	0,4836944350	0,0023112351
0,76	1,0	0,3095070650	0.4671659756	0,4635659279	0,0036000477
0,80	1,0	0,3303617780	0.4489935015	0,4651721391	-0,0161786376
0,84	1,0	0,3511585861	0.4314856561	0,4273932446	0,0040924115
0,88	1,0	0,3716492622	0.4146321786	0,4120636697	0,0025685089
0,92	1,0	0,3916778966	0.3984180017	0,3947097845	0,0037082172
0,96	-1,0	0,4077415537	0.3828251572	0,3967045956	-0,0138794384
1,00	-1,0	0,4036305553	0.3678340412	0,3637281767	0,0041058645
1,04	-1,0	0,3841290375	0.3534242495	0,3507041732	0,0027200762
1,08	-1,0	0,3549675595	0.3395751261	0,3357368857	0,0038382404
1,12	-1,0	0,3199616838	0.3262661204	0,3400192847	-0,0137531643
1,16	-1,0	0,2816443219	0.3134770148	0,3092499880	0,0042270267
1,20	-1,0	0,2416895683	0.3011880677	0,2983515838	0,0028364839
1,24	-1,0	0,2011967675	0.2893800993	0,2854300412	0,0039500582
1,28	-1,0	0,1608808924	0.2780345397	0,2916801441	-0,0136456045
1,32	-1,0	0,1212001246	0.2671334514	0,2628044755	0,0043289759
1,36	-1,0	0,0824413399	0.2566595365	0,2537095605	0,0029499759
1,40	-1,0	0,0447773781	0.2465961324	0,2426757758	0,0039203566
1,44	1,0	0,0117138985	0.2369272013	0,2484057458	-0,0114785446
1,48	1,0	-0,0005458817	0.2276373148	0,2234231037	0,0042142111
1,52	1,0	0,0032016088	0.2187116365	0,2157176547	0,0029939818
1,56	1,0	0,0172099210	0.2101359033	0,2063275382	0,0038083651
1,60	-1,0	0,0342369949	0.2018964055	0,2112856986	-0,0093892931
1,64	-1,0	0,0355747415	0.1939799669	0,1899540237	0,0040259431
1,68	-1,0	0,0243402478	0.1863739255	0,1834220885	0,0029518370
1,72	-1,0	0,0051540010	0.1790661140	0,1753137854	0,0037523286
1,76	1,0	-0,0154969484	0.1720448411	0,1814865855	-0,0094417444
1,80	1,0	-0,0194108541	0.1652988730	0,1613234587	0,0039754142
1,84	1,0	-0,0100444503	0.1588174159	0,1559141140	0,0029033019
1,88	1,0	0,0077538778	0.1525900989	0,1488844035	0,0037056955
1,92	-1,0	0,0273440976	0.1466069575	0,1560935065	-0,0094865490
1,96	-1,0	0,0304217075	0.1408584178	0,1369260513	0,0039323665
2,00	-1,0	0,0203743621	0.1353352812	0,1324733391	0,0028619420
2,04	-1,0	0,0020039488	0.1300287095	0,1263627521	0,0036659574
2,08	1,0	-0,0180808536	0.1249302113	0,1344549403	-0,0095247291
2,12	1,0	-0,0215967380	0.1200316279	0,1161359444	0,0038956835

G(T) = 1./EXP(T)-1./EXP(10T)
USING SHIFTED AUTOCORRELATION FUNCTION
INTERVAL = 1 DTIME = 0.04 N = 127 A = 1.00
CORRELATION TIME = 1.573 SEC IDENTIFYING TIME = 1.758 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	0.0440251325	0.0000000000	0.0179738806	-0.0179738806
0.04	1.0	0.0280308301	0.2904693931	0.2960193596	-0.0055499665
0.08	1.0	0.0265532938	0.4737873823	0.4795971021	-0.0058097198
0.12	1.0	0.0368946327	0.5857262248	0.5909427557	-0.0052165309
0.16	1.0	0.0547140759	0.6502472710	0.6550624683	-0.0048151973
0.20	1.0	0.0771193398	0.6833954699	0.6878596357	-0.0044641658
0.24	1.0	0.1021884079	0.6959099078	0.7001409057	-0.0042309979
0.28	1.0	0.1286489966	0.6949736788	0.6989314520	-0.0039577732
0.32	-1.0	0.1522552243	0.6853868331	0.6890970082	-0.0037101751
0.36	-1.0	0.1563045715	0.6703526036	0.6739012172	-0.0035486136
0.40	-1.0	0.1452557805	0.6520044071	0.6553997906	-0.0033953835
0.44	-1.0	0.1246260658	0.6317590812	0.6350165924	-0.0032575112
0.48	1.0	0.1015010627	0.6105536448	0.6136099278	-0.0030562831
0.52	1.0	0.0944813505	0.5890039836	0.5919445135	-0.0029405300
0.56	1.0	0.1003752246	0.5675112001	0.5702662415	-0.0027550414
0.60	-1.0	0.1111012324	0.5463328839	0.5489817193	-0.0026488354
0.64	1.0	0.1107957404	0.5256308668	0.5281782455	-0.0025473787
0.68	1.0	0.1183524727	0.5055032172	0.5078824227	-0.0023792054
0.72	1.0	0.1333255276	0.4860056702	0.4882986830	-0.0022930128
0.76	1.0	0.1528814085	0.4671659756	0.4693047593	-0.0021387837
0.80	-1.0	0.1717275022	0.4489935015	0.4509887622	-0.0019952607
0.84	-1.0	0.1724594327	0.4314856561	0.4333425482	-0.0018568921
0.88	1.0	0.1624737684	0.4146321786	0.4163567345	-0.0017245558
0.92	-1.0	0.1597195820	0.3984180017	0.4000109013	-0.0015928997
0.96	1.0	0.1501038678	0.3828251572	0.3843632304	-0.0015380731
1.00	1.0	0.1511563442	0.3678340412	0.3692437785	-0.0014097373
1.04	-1.0	0.1581078712	0.3534242495	0.3547868312	-0.0013625817
1.08	-1.0	0.1513553278	0.3395751261	0.3408162341	-0.0012411079
1.12	1.0	0.1368222010	0.3262661204	0.3274666599	-0.0012005395
1.16	-1.0	0.1314708793	0.3134770148	0.3145629050	-0.0010858902
1.20	-1.0	0.1171391879	0.3011880677	0.3022354447	-0.0010473770
1.24	1.0	0.0981671237	0.2893800993	0.2903859799	-0.0010058805
1.28	-1.0	0.0904566563	0.2780345397	0.2790005522	-0.0009660126
1.32	-1.0	0.0751357774	0.2671334514	0.2680656500	-0.0009321986
1.36	-1.0	0.0526611192	0.2566595365	0.2574876586	-0.0008281222
1.40	-1.0	0.0258696950	0.2465961324	0.2473993811	-0.0008032487
1.44	-1.0	-0.0033555527	0.2369272013	0.2376354583	-0.0007082570
1.48	-1.0	-0.0337704785	0.2276373148	0.2282543457	-0.0006170310
1.52	1.0	-0.0611499318	0.2187116365	0.2193116456	-0.0006000091
1.56	-1.0	-0.0722155826	0.2101359033	0.2106484724	-0.0005125691
1.60	-1.0	-0.0875944682	0.2018964055	0.2023294130	-0.0004330076
1.64	-1.0	-0.1080028815	0.1939799669	0.1943364880	-0.0003565212
1.68	1.0	-0.1279781788	0.1863739255	0.1866530130	-0.0002790875
1.72	-1.0	-0.1334113990	0.1790661140	0.1793374394	-0.0002713254
1.76	-1.0	-0.1443717198	0.1720448411	0.1723087132	-0.0002638721
1.80	1.0	-0.1577919638	0.1652988730	0.1654889033	-0.0001900303
1.84	1.0	-0.1552095934	0.1588174159	0.1589409493	-0.0001235334
1.88	-1.0	-0.1433123862	0.1525900989	0.1526452973	-0.0000551984
1.92	-1.0	-0.1429832910	0.1466069575	0.1466631356	-0.0000561780
1.96	-1.0	-0.1525591848	0.1408584178	0.1409160412	-0.0000576233
2.00	1.0	-0.1649819686	0.1353352812	0.1353231136	0.0000121676
2.04	-1.0	-0.1650727494	0.1300287095	0.1300251170	0.0000035925
2.08	1.0	-0.1687745637	0.1249302113	0.1248587731	0.0000714382
2.12	1.0	-0.1597911993	0.1200316279	0.1199706342	0.0000609937

Appendix G

THE RESULTS OF PROGRAM CHAINAN2

G(T) = SIN(T)/EXP(T)

INTERVAL = 1 DTIME = 0.08 N = 63 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 0.399 SEC IDENTIFYING TIME = 0.504 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	3.1954354031	0.0000000000	-0.0040777468	0.0040777468
0.08	1.0	3.2883364711	0.0737705603	0.0730724071	0.0006981532
0.16	1.0	3.3863853152	0.1357620202	0.1356158132	0.0001462071
0.24	1.0	3.4903200158	0.1869835086	0.1873859152	-0.0004024066
0.32	1.0	3.5993242206	0.2284222051	0.2293303430	-0.0009081379
0.40	1.0	3.7126575045	0.2610349211	0.2624170061	-0.0013820850
0.48	1.0	3.8296528907	0.2857412845	0.2875648710	-0.0018235865
0.56	-1.0	3.9481456587	0.3034183708	0.3056518696	-0.0022334988
0.64	1.0	4.0605666426	0.3148966319	0.3175079940	-0.0026113621
0.72	1.0	4.1753103418	0.3209569766	0.3239140671	-0.0029570904
0.80	-1.0	4.2918729315	0.3223288692	0.3255995893	-0.0032707201
0.88	1.0	4.4027058887	0.3196893163	0.3232434434	-0.0035541271
0.96	-1.0	4.5146490475	0.3136626237	0.3174720690	-0.0038094452
1.04	-1.0	4.6201661658	0.3048208119	0.3088581729	-0.0040373610
1.12	-1.0	4.7190029478	0.2936845874	0.2979231886	-0.0042386012
1.20	1.0	4.8139958489	0.2807247780	0.2851403446	-0.0044155667
1.28	-1.0	4.9133444249	0.2663641436	0.2709348067	-0.0045706631
1.36	-1.0	5.0092418849	0.2509794886	0.2556859664	-0.0047064778
1.44	-1.0	5.1011682339	0.2349040043	0.2397278679	-0.0048238636
1.52	-1.0	5.1901332882	0.2184297801	0.2233550939	-0.0049253138
1.60	1.0	5.2786158837	0.2018104299	0.2068237394	-0.0050133095
1.68	-1.0	5.3744711177	0.1852637840	0.1903524376	-0.0050886536
1.76	1.0	5.4711312333	0.1689746057	0.1741266935	-0.0051520878
1.84	1.0	5.5763719421	0.1530972983	0.1583015065	-0.0052042082
1.92	-1.0	5.6890881811	0.1377585684	0.1430040687	-0.0052455004
2.00	-1.0	5.7995840325	0.1230600248	0.1283362659	-0.0052762410
2.08	1.0	5.9086742448	0.1090806884	0.1143789554	-0.0052982670
2.16	-1.0	6.0241976616	0.0958793982	0.1011927301	-0.0053133318
2.24	1.0	6.1395837760	0.0834971003	0.0888202726	-0.0053231723
2.32	-1.0	6.2610488761	0.0719590095	0.0772885965	-0.0053295870
2.40	1.0	6.3820348717	0.0612766373	0.0666093169	-0.0053326796
2.48	-1.0	6.5087726692	0.0514496821	0.0567820641	-0.0053323820
2.56	-1.0	6.6331522880	0.0424677794	0.0477980211	-0.0053302417
2.64	1.0	6.7559506724	0.0343121122	0.0396381555	-0.0053260433
2.72	-1.0	6.8849765238	0.0269568829	0.0322763310	-0.0053194481
2.80	-1.0	7.0120678686	0.0203706504	0.0256824156	-0.0053117652
2.88	1.0	7.1379523410	0.0145175359	0.0198199928	-0.0053024570
2.96	1.0	7.2719604116	0.0093583031	0.0146510583	-0.0052927553
3.04	1.0	7.4144946281	0.0048513182	0.0101333574	-0.0052820392
3.12	1.0	7.5644215202	0.0009533964	0.0062248483	-0.0052714520
3.20	-1.0	7.7191347680	-0.0023794587	0.0028809431	-0.0052604018
3.28	-1.0	7.8690818215	-0.0051914151	0.0000568062	-0.0052482213
3.36	-1.0	8.0136614679	-0.0075262650	-0.0022904552	-0.0052358098
3.44	-1.0	8.1538308144	-0.0094269634	-0.0042028396	-0.0052241238
3.52	-1.0	8.2904726879	-0.0109352437	-0.0057228497	-0.0052123940
3.60	1.0	8.4259644025	-0.0120913058	-0.0068896899	-0.0052016158
3.68	1.0	8.5696506447	-0.0129335673	-0.0077425113	-0.0051910560
3.76	-1.0	8.7203770261	-0.0134984737	-0.0083184675	-0.0051800062
3.84	1.0	8.8699789522	-0.0138203586	-0.0086526550	-0.0051677036
3.92	1.0	9.0262850781	-0.0139313510	-0.0087781125	-0.0051532385
4.00	1.0	9.1898258401	-0.0138613212	-0.0087238877	-0.0051374335
4.08	-1.0	9.3580237913	-0.0136378619	-0.0085184185	-0.0051194434
4.16	-1.0	9.5213525156	-0.0132862989	-0.0081877949	-0.0050985040
4.24	1.0	9.6808024994	-0.0128297273	-0.0077560108	-0.0050737164

G(T) = SIN(T)/EXP(T)

INTERVAL = 4 DTIME = 0.08 N = 63 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 1.595 SEC IDENTIFYING TIME = 1.991 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	3.1596597814	0.0000000000	-0.0244749021	0.0244749021
0.02	-1.0	3.1836026954	0.0196026666	0.0212294643	-0.0016267977
0.04	-1.0	3.2071557378	0.0384213300	0.0388628821	-0.0004415521
0.06	-1.0	3.2303363652	0.0564719746	0.0574907293	-0.0010187547
0.08	1.0	3.2532612061	0.0737705603	0.0678301353	0.0059404250
0.10	1.0	3.2765311824	0.0903330110	0.0919969148	-0.0016639039
0.12	1.0	3.3002319015	0.1061752032	0.1073011873	-0.0011259842
0.14	1.0	3.3243487785	0.1213129559	0.1229092855	-0.0015963296
0.16	1.0	3.3488675375	0.1357620202	0.1303994917	0.0053625285
0.18	1.0	3.3737742092	0.1495380696	0.1517731414	-0.0022350717
0.20	1.0	3.3990551313	0.1626566908	0.1643462948	-0.0016896040
0.22	1.0	3.4246969458	0.1751333748	0.1772855922	-0.0021522174
0.24	1.0	3.4506865985	0.1869835086	0.1821698093	0.0048136993
0.26	1.0	3.4770113373	0.1982223672	0.2009970195	-0.0027746523
0.28	1.0	3.5036587097	0.2088651061	0.2110865091	-0.0022214030
0.30	1.0	3.5306165612	0.2189267537	0.2216027397	-0.0026759860
0.32	1.0	3.5578730333	0.2284222051	0.2241249740	0.0042972311
0.34	1.0	3.5854165613	0.2373662152	0.2406478954	-0.0032816802
0.36	1.0	3.6132358714	0.2457733928	0.2484938926	-0.0027204998
0.38	1.0	3.6413199780	0.2536581949	0.2568251354	-0.0031669405
0.40	1.0	3.6696581818	0.2610349211	0.2572212803	0.0038136409
0.42	1.0	3.6982400659	0.2679177089	0.2716735094	-0.0037558005
0.44	1.0	3.7270554945	0.2743205287	0.2775072150	-0.0031866863
0.46	1.0	3.7560946078	0.2802571794	0.2838823163	-0.0036251369
0.48	1.0	3.7853478207	0.2857412845	0.2823770356	0.0033642489
0.50	1.0	3.8148058181	0.2907862882	0.2949847542	-0.0041984660
0.52	1.0	3.8444595530	0.2954054518	0.2990265045	-0.0036210527
0.54	1.0	3.8743002418	0.2996118506	0.3036632051	-0.0040513544
0.56	-1.0	3.9042198609	0.3034183708	0.3004713972	0.0029469736
0.58	-1.0	3.9336260193	0.3068377071	0.3114465881	-0.0046088811
0.60	-1.0	3.9624415645	0.3098823596	0.3139054174	-0.0040230578
0.62	-1.0	3.9906894540	0.3125646327	0.3170097609	-0.0044451282
0.64	1.0	4.0184917547	0.3148966319	0.3123344145	0.0025622174
0.66	1.0	4.0464547626	0.3168902632	0.3218769820	-0.0049867189
0.68	1.0	4.0746693930	0.3185572306	0.3229496923	-0.0043924617
0.70	1.0	4.1031263018	0.3199090359	0.3247152124	-0.0048061764
0.72	1.0	4.1318163836	0.3209569766	0.3187482984	0.0022086782
0.74	1.0	4.1607307700	0.3217121457	0.3270428688	-0.0053307231
0.76	1.0	4.1898608279	0.3221854307	0.3269139915	-0.0047285608
0.78	1.0	4.2191981551	0.3223875134	0.3275217996	-0.0051342862
0.80	-1.0	4.2486350794	0.3223288692	0.3204411887	0.0018876805
0.82	-1.0	4.2775795300	0.3220197675	0.3276623809	-0.0056426134
0.84	-1.0	4.3059546471	0.3214702711	0.3265032516	-0.0050329805
0.86	-1.0	4.3337836518	0.3206902370	0.3261215063	-0.0054312693
0.88	1.0	4.3611888473	0.3196893163	0.3180904726	0.0015988437
0.90	1.0	4.3887767402	0.3184769551	0.3244024151	-0.0059254600
0.92	1.0	4.4166384300	0.3170623947	0.3223707429	-0.0053083482
0.94	1.0	4.4447647327	0.3154546727	0.3211540755	-0.0056994028
0.96	-1.0	4.4730471787	0.3136626237	0.3123239480	0.0013386758
0.98	-1.0	4.5008928879	0.3116948807	0.3178747051	-0.0061798244
1.00	-1.0	4.5282241774	0.3095598756	0.3151153063	-0.0055554306
1.02	-1.0	4.5550634360	0.3072658412	0.3132051904	-0.0059393492
1.04	-1.0	4.5814326233	0.3048208119	0.3037158289	0.0011049830
1.06	-1.0	4.6073532698	0.3022326255	0.3086379092	-0.0064052836

G(T) = SIN(T)/EXP(T)

INTERVAL = 1 DTIME = 0.02 N = 255 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 6.436 SEC IDENTIFYING TIME = 6.905 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	1.0	3.1711696761	0.0000000000	-0.0006956975	0.0006956975
0.02	1.0	3.1947020045	0.0196026666	0.0195246706	0.0000779960
0.04	1.0	3.2187028142	0.0384213300	0.0385149051	-0.0000935751
0.06	1.0	3.2431557429	0.0564719746	0.0567209175	-0.0002489429
0.08	1.0	3.2680447777	0.0737705603	0.0741717771	-0.0004012168
0.10	1.0	3.2933542550	0.0903330110	0.0908840468	-0.0005510358
0.12	1.0	3.3190688576	0.1061752032	0.1068735560	-0.0006983528
0.14	1.0	3.3451736149	0.1213129559	0.1221561435	-0.0008431876
0.16	-1.0	3.3715543983	0.1357620202	0.1367474791	-0.0009854588
0.18	1.0	3.3977122983	0.1495380696	0.1506631493	-0.0011250797
0.20	1.0	3.4241483533	0.1626566908	0.1639186975	-0.0012620067
0.22	-1.0	3.4508493153	0.1751333748	0.1765296782	-0.0013963034
0.24	1.0	3.4773166476	0.1869835086	0.1885114964	-0.0015279878
0.26	1.0	3.5040517554	0.1982223672	0.1998793662	-0.0016569990
0.28	-1.0	3.5310417516	0.2088651061	0.2106483720	-0.0017832659
0.30	-1.0	3.5576889532	0.2189267537	0.2208335072	-0.0019067536
0.32	1.0	3.5840104894	0.2284222051	0.2304497463	-0.0020275412
0.34	1.0	3.6106082997	0.2373662152	0.2395118591	-0.0021456439
0.36	1.0	3.6375690227	0.2457733928	0.2480344212	-0.0022610283
0.38	1.0	3.6648791183	0.2536581949	0.2560319699	-0.0023737749
0.40	-1.0	3.6924258650	0.2610349211	0.2635188450	-0.0024839238
0.42	-1.0	3.7196122348	0.2679177089	0.2705091182	-0.0025914093
0.44	-1.0	3.7463564987	0.2743205287	0.2770167609	-0.0026962323
0.46	1.0	3.7727766037	0.2802571794	0.2830556014	-0.0027984220
0.48	1.0	3.7994747917	0.2857412845	0.2886392622	-0.0028979777
0.50	-1.0	3.8264384902	0.2907862882	0.2937812240	-0.0029949357
0.52	1.0	3.8531698111	0.2954054518	0.2984947241	-0.0030892723
0.54	-1.0	3.8800712815	0.2996118506	0.3027929197	-0.0031810691
0.56	1.0	3.9067454865	0.3034183708	0.3066887627	-0.0032703919
0.58	1.0	3.9336944236	0.3068377071	0.3101950371	-0.0033573300
0.60	1.0	3.9610052695	0.3098823596	0.3133242974	-0.0034419377
0.62	-1.0	3.9885655007	0.3125646327	0.3160887908	-0.0035241582
0.64	-1.0	4.0157782692	0.3148966319	0.3185006331	-0.0036040012
0.66	1.0	4.0426615103	0.3168902632	0.3205717927	-0.0036815295
0.68	-1.0	4.0697184398	0.3185572306	0.3223139385	-0.0037567078
0.70	-1.0	4.0964523216	0.3199090359	0.3237385365	-0.0038295006
0.72	-1.0	4.1227811957	0.3209569766	0.3248568780	-0.0038999013
0.74	-1.0	4.1487232574	0.3217121457	0.3256801405	-0.0039679948
0.76	1.0	4.1743958545	0.3221854307	0.3262192925	-0.0040338618
0.78	1.0	4.2004006129	0.3223875134	0.3264850958	-0.0040975824
0.80	1.0	4.2268238247	0.3223288692	0.3264881169	-0.0041592477
0.82	1.0	4.2536515731	0.3220197675	0.3262386923	-0.0042189248
0.84	-1.0	4.2807707326	0.3214702711	0.3257468351	-0.0042765640
0.86	1.0	4.3076833436	0.3206902370	0.3250224035	-0.0043321665
0.88	1.0	4.3348913455	0.3196893163	0.3240751317	-0.0043858154
0.90	1.0	4.3624818426	0.3184769551	0.3229145443	-0.0044375892
0.92	-1.0	4.3903422260	0.3170623947	0.3215499823	-0.0044875876
0.94	1.0	4.4179750504	0.3154546727	0.3199905422	-0.0045358695
0.96	1.0	4.4458827648	0.3136626237	0.3182450298	-0.0045824061
0.98	1.0	4.4741529794	0.3116948807	0.3163220427	-0.0046271620
1.00	1.0	4.5027730886	0.3095598756	0.3142300079	-0.0046701322
1.02	-1.0	4.5316312672	0.3072658412	0.3119772469	-0.0047114057
1.04	1.0	4.5602308495	0.3048208119	0.3095718917	-0.0047510799
1.06	-1.0	4.5889755558	0.3022326255	0.3070218394	-0.0047892139

G(T) = 1./EXP(T)

INTERVAL = 1 DTIME = 0.08 N = 63 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 0.399 SEC IDENTIFYING TIME = 0.568 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	3.2255582755	1.0000000000	0.9956169569	0.0043830431
0.08	1.0	3.3129569350	0.9231163464	0.9206286308	0.0024877156
0.16	1.0	3.4771706073	0.8521437890	0.8494443786	0.0026994104
0.24	1.0	3.6370507216	0.7866278611	0.7835097854	0.0031180756
0.32	1.0	3.7930288686	0.7261490371	0.7226510698	0.0034979673
0.40	1.0	3.9455034574	0.6703200460	0.6664694983	0.0038505478
0.48	1.0	4.0948422651	0.6187833918	0.6146061400	0.0041772518
0.56	-1.0	4.1629688991	0.5712090639	0.5667282613	0.0044808025
0.64	1.0	4.2377162847	0.5272924240	0.5225301067	0.0047623174
0.72	1.0	4.3909402367	0.4867522560	0.4817293293	0.0050229266
0.80	-1.0	4.4629485437	0.4493289641	0.4440653808	0.0052635833
0.88	1.0	4.5415743984	0.4147829117	0.4092964651	0.0054864466
0.96	-1.0	4.6202579680	0.3828928860	0.3771993752	0.0056935108
1.04	-1.0	4.6268267941	0.3534546820	0.3475693335	0.0058853485
1.12	-1.0	4.6422648961	0.3262797946	0.3202173107	0.0060624839
1.20	1.0	4.7444046766	0.3011942119	0.2949675294	0.0062266825
1.28	-1.0	4.8451879794	0.2780373004	0.2716578152	0.0063794853
1.36	-1.0	4.8725510752	0.2566607770	0.2501383644	0.0065224126
1.44	-1.0	4.9075783518	0.2369277587	0.2302722563	0.0066555023
1.52	-1.0	4.9497789700	0.2187118870	0.2119317426	0.0067801443
1.60	1.0	5.0771157212	0.2018965180	0.1949989041	0.0068976139
1.68	-1.0	5.2016508157	0.1863739760	0.1793661653	0.0070078108
1.76	1.0	5.3298475278	0.1720448638	0.1649341443	0.0071107195
1.84	1.0	5.5337891816	0.1588174261	0.1516111085	0.0072063176
1.92	-1.0	5.6539935842	0.1466069621	0.1393123697	0.0072945924
2.00	-1.0	5.7000719033	0.1353352832	0.1279598303	0.0073754530
2.08	1.0	5.8315786901	0.1249302122	0.1174801075	0.0074501047
2.16	-1.0	5.9605536793	0.1153251210	0.1078055402	0.0075195808
2.24	1.0	6.0934393971	0.1064585044	0.0988736687	0.0075848356
2.32	-1.0	6.2238841214	0.0982735856	0.0906267574	0.0076468282
2.40	1.0	6.3583233982	0.0907179533	0.0830127857	0.0077051676
2.48	-1.0	6.4903990604	0.0837432256	0.0759837454	0.0077594802
2.56	-1.0	6.5481248106	0.0773047404	0.0694939631	0.0078107774
2.64	1.0	6.6910724099	0.0713612696	0.0635026273	0.0078586423
2.72	-1.0	6.8312974771	0.0658747544	0.0579720702	0.0079026842
2.80	-1.0	6.8968413090	0.0608100626	0.0528661529	0.0079439098
2.88	1.0	7.0473011410	0.0561347628	0.0481529673	0.0079817955
2.96	1.0	7.2731720001	0.0518189172	0.0438015955	0.0080173216
3.04	1.0	7.4934132585	0.0478348895	0.0397849610	0.0080499285
3.12	1.0	7.7085561523	0.0441571684	0.0360766160	0.0080805524
3.20	-1.0	7.8406751801	0.0407622040	0.0326535078	0.0081086962
3.28	-1.0	7.8993266615	0.0376282568	0.0294943522	0.0081339046
3.36	-1.0	7.9655986233	0.0347352589	0.0265782322	0.0081570267
3.44	-1.0	8.0390035876	0.0320646853	0.0238858244	0.0081788609
3.52	-1.0	8.1190915534	0.0295994352	0.0214006601	0.0081987750
3.60	1.0	8.2838630120	0.0273237224	0.0191060931	0.0082176293
3.68	1.0	8.5238308664	0.0252229748	0.0169881316	0.0082348433
3.76	-1.0	8.6795550992	0.0232837404	0.0150337702	0.0082499702
3.84	1.0	8.8391017020	0.0214936013	0.0132310064	0.0082625949
3.92	1.0	9.0745416407	0.0198410947	0.0115688455	0.0082722492
4.00	1.0	9.3047972070	0.0183156389	0.0100357739	0.0082798650
4.08	-1.0	9.4519495103	0.0169074657	0.0086225271	0.0082849386
4.16	-1.0	9.5255609765	0.0156075579	0.0073204569	0.0082871010
4.24	1.0	9.6851411613	0.0144075918	0.0061216797	0.0082859122

G(T) = 1./EXP(T)

INTERVAL = 4 DTIME = 0.08 N = 63 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 1.595 SEC IDENTIFYING TIME = 1.990 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	3.2242327925	1.0000000000	0.9524554976	0.0475445024
0.02	-1.0	3.2249912919	0.9801986733	0.9811652917	-0.0009666184
0.04	-1.0	3.2262551538	0.9607894392	0.9599458324	0.0008436067
0.06	-1.0	3.2280159549	0.9417645336	0.9420583434	-0.0002938098
0.08	1.0	3.2501656893	0.9231163464	0.9094596072	0.0136567392
0.10	1.0	3.2921042020	0.9048374181	0.9046050326	0.0002323855
0.12	1.0	3.3337389947	0.8869204367	0.8857647555	0.0011556812
0.14	1.0	3.3750776650	0.8693582354	0.8691808163	0.0001774191
0.16	1.0	3.4161276611	0.8521437890	0.8380383466	0.0141054424
0.18	1.0	3.4568962830	0.8352702114	0.8345953538	0.0006748576
0.20	1.0	3.4973906866	0.8187307531	0.8171415043	0.0015892488
0.22	1.0	3.5376178857	0.8025187980	0.8019163646	0.0006024333
0.24	1.0	3.5775847554	0.7866278611	0.7721051081	0.0145227530
0.26	1.0	3.6172980348	0.7710515858	0.7699687688	0.0010828170
0.28	1.0	3.6567643294	0.7557837415	0.7537943283	0.0019894132
0.30	1.0	3.6959901137	0.7408182207	0.7398233995	0.0009948212
0.32	1.0	3.7349817343	0.7261490371	0.7112408073	0.0149082298
0.34	1.0	3.7737454124	0.7117703228	0.7103106052	0.0014597176
0.36	1.0	3.8122872455	0.6976763261	0.6953170459	0.0023592802
0.38	1.0	3.8506132104	0.6838614092	0.6825037509	0.0013576583
0.40	1.0	3.8887291658	0.6703200460	0.6550551594	0.0152648866
0.42	1.0	3.9266408542	0.6570468198	0.6552383053	0.0018085145
0.44	1.0	3.9643539045	0.6440364211	0.6413346825	0.0027017386
0.46	1.0	4.0018738342	0.6312836455	0.6295897919	0.0016938536
0.48	1.0	4.0392060514	0.6187833918	0.6031891323	0.0155942595
0.50	1.0	4.0763558568	0.6065306597	0.6043976673	0.0021329925
0.52	1.0	4.1133284471	0.5945205480	0.5915005010	0.0030200469
0.54	1.0	4.1501289152	0.5827482524	0.5807419989	0.0020062535
0.56	-1.0	4.1668620039	0.5712090639	0.5553089135	0.0159001503
0.58	-1.0	4.1641246686	0.5598983666	0.5574640613	0.0024343053
0.60	-1.0	4.1620062728	0.5488116361	0.5454961356	0.0033155005
0.62	-1.0	4.1604961446	0.5379444376	0.5356483387	0.0022960989
0.64	1.0	4.1794840732	0.5272924240	0.5111086414	0.0161837827
0.66	1.0	4.2183677433	0.5168513345	0.5141376820	0.0027136525
0.68	1.0	4.2570525380	0.5066169924	0.5030277133	0.0035892790
0.70	1.0	4.2955439795	0.4965853038	0.4940208421	0.0025644617
0.72	1.0	4.3338474806	0.4867522560	0.4703047235	0.0164475325
0.74	1.0	4.3719683465	0.4771139155	0.4741428380	0.0029710776
0.76	1.0	4.4099117784	0.4676664270	0.4638245504	0.0038418766
0.78	1.0	4.4476828732	0.4584060113	0.4555938229	0.0028121884
0.80	-1.0	4.4653863782	0.4493289641	0.4326377637	0.0166912004
0.82	-1.0	4.4636192527	0.4404316545	0.4372226897	0.0032089648
0.84	-1.0	4.4624708650	0.4317105234	0.4276350658	0.0040754576
0.86	-1.0	4.4619305466	0.4231620823	0.4201205725	0.0030415098
0.88	1.0	4.4818880906	0.4147829117	0.3978672607	0.0169156510
0.90	1.0	4.5217411859	0.4065696598	0.4031392196	0.0034304401
0.92	1.0	4.5613952191	0.3985190411	0.3942263953	0.0042926458
0.94	1.0	4.6008557160	0.3906278354	0.3873732077	0.0032546277
0.96	-1.0	4.6202278436	0.3828928860	0.3657688169	0.0171240691
0.98	-1.0	4.6201089731	0.3753110988	0.3716750502	0.0036360486
1.00	-1.0	4.6205888750	0.3678794412	0.3633852988	0.0044941423
1.02	-1.0	4.6216572770	0.3605949402	0.3571428107	0.0034521295
1.04	-1.0	4.6233041098	0.3534546820	0.3361363366	0.0173183454
1.06	-1.0	4.6255195043	0.3464558103	0.3426304368	0.0038253735

G(T) = 1./EXP(T)

INTERVAL = 1 DTIME = 0.02 N = 255 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 6.438 SEC IDENTIFYING TIME = 7.303 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	1.0	3.1785120661	1.0000000000	0.9988828226	0.0011171774
0.02	1.0	3.2215809355	0.9801986733	0.9790150194	0.0011836539
0.04	1.0	3.2643221178	0.9607894392	0.9599221293	0.0008673098
0.06	1.0	3.3067436861	0.9417645336	0.9407524108	0.0010121228
0.08	1.0	3.3488535529	0.9231163464	0.9219909806	0.0011253658
0.10	1.0	3.3906594748	0.9048374181	0.9035979912	0.0012394269
0.12	1.0	3.4321690541	0.8869204367	0.8855696944	0.0013507424
0.14	1.0	3.4733897431	0.8693582354	0.8678985084	0.0014597269
0.16	-1.0	3.4944285966	0.8521437890	0.8505774209	0.0015663681
0.18	1.0	3.5157850863	0.8352702114	0.8335995126	0.0016706989
0.20	1.0	3.5569587347	0.8187307531	0.8169580322	0.0017727209
0.22	-1.0	3.5779562314	0.8025187980	0.8006462961	0.0018725019
0.24	1.0	3.5992769354	0.7866278611	0.7846577331	0.0019701280
0.26	1.0	3.6404202587	0.7710515858	0.7689859699	0.0020656158
0.28	-1.0	3.6613927834	0.7557837415	0.7536247555	0.0021589860
0.30	-1.0	3.6627935127	0.7408182207	0.7385679798	0.0022502409
0.32	1.0	3.6846140666	0.7261490371	0.7238095925	0.0023394446
0.34	1.0	3.7262536789	0.7117703228	0.7093436386	0.0024266842
0.36	1.0	3.7676192510	0.6976763261	0.6951643707	0.0025119554
0.38	1.0	3.8087177936	0.6838614092	0.6812660901	0.0025953191
0.40	-1.0	3.8296559287	0.6703200460	0.6676431926	0.0026768534
0.42	-1.0	3.8310324540	0.6570468198	0.6542902443	0.0027565755
0.44	-1.0	3.8329385381	0.6440364211	0.6412019517	0.0028344694
0.46	1.0	3.8552655290	0.6312836455	0.6283730196	0.0029106259
0.48	1.0	3.8974126387	0.6187833918	0.6157983652	0.0029850266
0.50	-1.0	3.9193864985	0.6065306597	0.6034729013	0.0030577584
0.52	1.0	3.9416864095	0.5945205480	0.5913917393	0.0031288087
0.54	-1.0	3.9639114787	0.5827482524	0.5795500116	0.0031982408
0.56	1.0	3.9864607934	0.5712090639	0.5679429536	0.0032661103
0.58	1.0	4.0288337452	0.5598983666	0.5565658992	0.0033324673
0.60	1.0	4.0709371450	0.5488116361	0.5454142541	0.0033973820
0.62	-1.0	4.0928776652	0.5379444376	0.5344835743	0.0034608633
0.64	-1.0	4.0952541522	0.5272924240	0.5237695323	0.0035228917
0.66	1.0	4.1180580723	0.5168513345	0.5132677943	0.0035835402
0.68	-1.0	4.1407882588	0.5066169924	0.5029741847	0.0036428077
0.70	-1.0	4.1439435283	0.4965853038	0.4928845996	0.0037007042
0.72	-1.0	4.1476153124	0.4867522560	0.4829950441	0.0037572118
0.74	-1.0	4.1517949679	0.4771139155	0.4733015242	0.0038123913
0.76	1.0	4.1763742714	0.4676664270	0.4638001349	0.0038662921
0.78	1.0	4.2207528573	0.4584060113	0.4544870475	0.0039189638
0.80	1.0	4.2648380181	0.4493289641	0.4453585119	0.0039704522
0.82	1.0	4.3086371480	0.4404316545	0.4364108372	0.0040208173
0.84	-1.0	4.3322572457	0.4317105234	0.4276404608	0.0040700626
0.86	1.0	4.3561977270	0.4231620823	0.4190439138	0.0041181686
0.88	1.0	4.3999580600	0.4147829117	0.4106177260	0.0041651856
0.90	1.0	4.4434451309	0.4065696598	0.4023584967	0.0042111631
0.92	-1.0	4.4667656849	0.3985190411	0.3942629045	0.0042561366
0.94	1.0	4.4904188906	0.3906278354	0.3863276659	0.0043001695
0.96	1.0	4.5339039728	0.3828928860	0.3785496341	0.0043432519
0.98	1.0	4.5771275794	0.3753110988	0.3709257158	0.0043853830
1.00	1.0	4.6200964723	0.3678794412	0.3634528984	0.0044265428
1.02	-1.0	4.6429170290	0.3605949402	0.3561281634	0.0044667768
1.04	1.0	4.6660880590	0.3534546820	0.3489485589	0.0045061231
1.06	-1.0	4.6892081840	0.3464558103	0.3419111701	0.0045446402

G(T) = 1./EXP(T)-1./EXP(10T)

INTERVAL = 1 DTIME = 0.08 N = 63 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 0.399 SEC IDENTIFYING TIME = 0.449 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	3.2285028175	0.0000000000	-0.0005838206	0.0005838206
0.08	1.0	3.3043515192	0.4737873823	0.4727428123	0.0010445700
0.16	1.0	3.4194705301	0.6502472710	0.6469555682	0.0032917027
0.24	1.0	3.5572909910	0.6959099078	0.6915023983	0.0044075094
0.32	1.0	3.7033570968	0.6853868331	0.6802705107	0.0051163224
0.40	1.0	3.8513779183	0.6520044071	0.6463893242	0.0056150830
0.48	1.0	3.9987155196	0.6105536448	0.6045460347	0.0060076101
0.56	-1.0	4.1314414137	0.5675112001	0.5611704775	0.0063407226
0.64	1.0	4.2136215885	0.5256308668	0.5189953444	0.0066355224
0.72	1.0	4.3262803771	0.4860056702	0.4791035683	0.0069021019
0.80	-1.0	4.4455600416	0.4489935015	0.4418480620	0.0071454395
0.88	1.0	4.5238327569	0.4146321786	0.4072626747	0.0073695039
0.96	-1.0	4.6239511801	0.3828251572	0.3752480491	0.0075771081
1.04	-1.0	4.6840562378	0.3534242495	0.3456550596	0.0077691899
1.12	-1.0	4.7235497192	0.3262661204	0.3183196880	0.0079464324
1.20	1.0	4.7709998182	0.3011880677	0.2930773912	0.0081106765
1.28	-1.0	4.8688029924	0.2780345397	0.2697710444	0.0082634952
1.36	-1.0	4.9387319610	0.2566595365	0.2482531086	0.0084064278
1.44	-1.0	4.9928853171	0.2369272013	0.2283876849	0.0085395164
1.52	-1.0	5.0436798368	0.2187116365	0.2100474851	0.0086641514
1.60	1.0	5.1093796166	0.2018964055	0.1931147902	0.0087816152
1.68	-1.0	5.2278129640	0.1863739255	0.1774821170	0.0088918085
1.76	1.0	5.3316744550	0.1720448411	0.1630501253	0.0089947158
1.84	1.0	5.4807766583	0.1588174159	0.1497271016	0.0090903143
1.92	-1.0	5.6418385676	0.1466069575	0.1374283656	0.0091785919
2.00	-1.0	5.7501802787	0.1353352812	0.1260758281	0.0092594531
2.08	1.0	5.8441653508	0.1249302113	0.1155961082	0.0093341030
2.16	-1.0	5.9778742760	0.1153251206	0.1059215463	0.0094035743
2.24	1.0	6.0912935591	0.1064585042	0.0969896814	0.0094688228
2.32	-1.0	6.2345849798	0.0982735855	0.0887427736	0.0095308119
2.40	1.0	6.3532031199	0.0907179533	0.0811288040	0.0095891493
2.48	-1.0	6.4997634167	0.0837432256	0.0740997678	0.0096434577
2.56	-1.0	6.6079024635	0.0773047404	0.0676099872	0.0096947533
2.64	1.0	6.7080037569	0.0713612696	0.0616186504	0.0097426192
2.72	-1.0	6.8505702673	0.0658747544	0.0560880955	0.0097866589
2.80	-1.0	6.9610711084	0.0608100626	0.0509821772	0.0098278854
2.88	1.0	7.0662329664	0.0561347628	0.0462689934	0.0098657695
2.96	1.0	7.2278452029	0.0518189172	0.0419176206	0.0099012966
3.04	1.0	7.4192132009	0.0478348895	0.0379009881	0.0099339014
3.12	1.0	7.6213825026	0.0441571684	0.0341926425	0.0099645259
3.20	-1.0	7.8131705800	0.0407622040	0.0307695313	0.0099926727
3.28	-1.0	7.9425380244	0.0376282568	0.0276103753	0.0100178815
3.36	-1.0	8.0405847167	0.0347352589	0.0246942566	0.0100410023
3.44	-1.0	8.1282669876	0.0320646853	0.0220018477	0.0100628377
3.52	-1.0	8.2147701608	0.0295994352	0.0195166855	0.0100827497
3.60	1.0	8.3169256977	0.0273237224	0.0172221182	0.0101016042
3.68	1.0	8.4848534742	0.0252229748	0.0151041534	0.0101188215
3.76	-1.0	8.6737064735	0.0232837404	0.0131497866	0.0101339538
3.84	1.0	8.8265452611	0.0214936013	0.0113470151	0.0101465863
3.92	1.0	9.0150662535	0.0198410947	0.0096848487	0.0101562461
4.00	1.0	9.2242397782	0.0183156389	0.0081517693	0.0101638696
4.08	-1.0	9.4274177698	0.0169074657	0.0067385122	0.0101689535
4.16	-1.0	9.5701081313	0.0156075579	0.0054364299	0.0101711280
4.24	1.0	9.6952290046	0.0144075918	0.0042376421	0.0101699497

G(T) = 1./EXP(T)-1./EXP(10T)

INTERVAL = 4 DTIME = 0.08 N = 63 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 1.595 SEC IDENTIFYING TIME = 1.958 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	3.1927059852	0.0000000000	-0.0485742881	0.0485742881
0.02	-1.0	3.2175863084	0.1614679202	0.1630455078	-0.0015775876
0.04	-1.0	3.2385994491	0.2904693931	0.2898844548	0.0005849383
0.06	-1.0	3.2565295922	0.3929528975	0.3934870859	-0.0005341884
0.08	1.0	3.2728930757	0.4737873823	0.4598402151	0.0139471672
0.10	1.0	3.2928800473	0.5369579769	0.5369052186	0.0000527583
0.12	1.0	3.3165424382	0.5857262248	0.5846930532	0.0010331716
0.14	1.0	3.3431665504	0.6227612714	0.6226965440	0.0000647274
0.16	1.0	3.3721692854	0.6502472710	0.6357485317	0.0144987393
0.18	1.0	3.4030744440	0.6699713232	0.6693917190	0.0005796041
0.20	1.0	3.4354933270	0.6833954699	0.6818596657	0.0015358042
0.22	1.0	3.4691088489	0.6917156396	0.6911693503	0.0005462892
0.24	1.0	3.5036625352	0.6959099078	0.6809475617	0.0149623461
0.26	1.0	3.5389438749	0.6967780076	0.6957525386	0.0010254690
0.28	1.0	3.5747816041	0.6949736788	0.6930066768	0.0019670020
0.30	1.0	3.6110365705	0.6910311523	0.6900670678	0.0009640845
0.32	1.0	3.6475958910	0.6853868331	0.6700182069	0.0153686262
0.34	1.0	3.6843681701	0.6783970528	0.6769776511	0.0014194017
0.36	1.0	3.7212795837	0.6703526036	0.6680017901	0.0023508135
0.38	1.0	3.7582706740	0.6614906374	0.6601522992	0.0013383382
0.40	1.0	3.7952937267	0.6520044071	0.6362697769	0.0157346302
0.42	1.0	3.8323106218	0.6420512430	0.6402753923	0.0017758507
0.44	1.0	3.8692910775	0.6317590812	0.6290595431	0.0026995381
0.46	1.0	3.9062112093	0.6212318098	0.6195521463	0.0016796634
0.48	1.0	3.9430523535	0.6105536448	0.5944854416	0.0160682031
0.50	1.0	3.9798001025	0.5997927127	0.5976889466	0.0021037661
0.52	1.0	4.0164435167	0.5890039836	0.5859833211	0.0030206625
0.54	1.0	4.0529744783	0.5782316714	0.5762373030	0.0019943684
0.56	-1.0	4.0885115021	0.5675112001	0.5511352196	0.0163759806
0.58	-1.0	4.1183836864	0.5568708118	0.5544641871	0.0024066248
0.60	-1.0	4.1429637071	0.5463328839	0.5430155034	0.0033173805
0.62	-1.0	4.1633123936	0.5359150070	0.5336297567	0.0022852503
0.64	1.0	4.1811722175	0.5256308668	0.5089704072	0.0166604596
0.66	1.0	4.2019181140	0.5154909665	0.5128042989	0.0026866675
0.68	1.0	4.2257529558	0.5055032172	0.5019114910	0.0035917262
0.70	1.0	4.2520862841	0.4956734218	0.4931193428	0.0025540791
0.72	1.0	4.2804355640	0.4860056702	0.4690810799	0.0169245902
0.74	1.0	4.3104066029	0.4765026628	0.4735582583	0.0029444045
0.76	1.0	4.3416775209	0.4671659756	0.4633213967	0.0038445789
0.78	1.0	4.3739856231	0.4579962763	0.4551942617	0.0028020146
0.80	-1.0	4.4062409968	0.4489935015	0.4318250704	0.0171684311
0.82	-1.0	4.4336020931	0.4401570009	0.4369745703	0.0031824306
0.84	-1.0	4.4563018765	0.4314856561	0.4274073809	0.0040782752
0.86	-1.0	4.4752867890	0.4229779765	0.4199465467	0.0030314298
0.88	1.0	4.4922056517	0.4146321786	0.3972392197	0.0173929589
0.90	1.0	4.5123567256	0.4064462500	0.4030422806	0.0034039693
0.92	1.0	4.5358801079	0.3984180017	0.3941224873	0.0042955143
0.94	1.0	4.5621339449	0.3905451113	0.3873005220	0.0032445893
0.96	-1.0	4.5897179624	0.3828251572	0.3652237461	0.0176014111
0.98	-1.0	4.6135365781	0.3752556472	0.3716460401	0.0036096071
1.00	-1.0	4.6336148364	0.3678340412	0.3633370076	0.0044970336
1.02	-1.0	4.6507290152	0.3605577699	0.3571156595	0.0034421103
1.04	-1.0	4.6655130191	0.3534242495	0.3356285471	0.0177957023
1.06	-1.0	4.6784842195	0.3464308943	0.3426319486	0.0037989457

G(T) = 1./EXP(T)-1./EXP(10T)

INTERVAL = 1 DTIME = 0.02 N = 255 A = 1.00

INCLUDING DC INPUT OFFSET & OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 6.438 SEC IDENTIFYING TIME = 6.870 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	1.0	3.1694175506	0.0000000000	-0.0024315594	0.0024315594
0.02	1.0	3.1960866583	0.1614679202	0.1603973620	0.0010705582
0.04	1.0	3.2254008514	0.2904693931	0.2893700366	0.0010993565
0.06	1.0	3.2568293307	0.3929528975	0.3916800308	0.0012728667
0.08	1.0	3.2899388175	0.4737873823	0.4723576011	0.0014297812
0.10	1.0	3.3243758514	0.5369579769	0.5353804243	0.0015775525
0.12	1.0	3.3598522956	0.5857262248	0.5840095679	0.0017166569
0.14	1.0	3.3961334713	0.6227612714	0.6209128959	0.0018483755
0.16	-1.0	3.4321527819	0.6502472710	0.6482736409	0.0019736301
0.18	1.0	3.4639638035	0.6699713232	0.6678781224	0.0020932008
0.20	1.0	3.4964827392	0.6833954699	0.6811877697	0.0022077002
0.22	-1.0	3.5294189448	0.6917156396	0.6893979426	0.0023176970
0.24	1.0	3.5587038082	0.6959099078	0.6934862198	0.0024236880
0.26	1.0	3.5891534741	0.6967780076	0.6942519853	0.0025260223
0.28	-1.0	3.6203953610	0.6949736788	0.6923486795	0.0026249993
0.30	-1.0	3.6474180926	0.6910311523	0.6883103076	0.0027208447
0.32	1.0	3.6711915793	0.6853868331	0.6825730274	0.0028138057
0.34	1.0	3.6972159581	0.6783970528	0.6754929297	0.0029041231
0.36	1.0	3.7257968583	0.6703526036	0.6673606912	0.0029919124
0.38	1.0	3.7564281969	0.6614906374	0.6584132984	0.0030773390
0.40	-1.0	3.7878210986	0.6520044071	0.6488438449	0.0031605622
0.42	-1.0	3.8149714225	0.6420512430	0.6388095765	0.0032416665
0.44	-1.0	3.8379793080	0.6317590812	0.6284383888	0.0033206924
0.46	1.0	3.8585584042	0.6212318098	0.6178340334	0.0033977764
0.48	1.0	3.8820602993	0.6105536448	0.6070807091	0.0034729357
0.50	-1.0	3.9077933369	0.5997927127	0.5962464243	0.0035462884
0.52	1.0	3.9313605735	0.5890039836	0.5853861358	0.0036178478
0.54	-1.0	3.9564336701	0.5782316714	0.5745439758	0.0036876956
0.56	1.0	3.9795043233	0.5675112001	0.5637552942	0.0037559060
0.58	1.0	4.0050899516	0.5568708118	0.5530482698	0.0038225420
0.60	1.0	4.0334490534	0.5463328839	0.5424451984	0.0038876855
0.62	-1.0	4.0631612826	0.5359150070	0.5319636534	0.0039513536
0.64	-1.0	4.0891148662	0.5256308668	0.5216173314	0.0040135354
0.66	1.0	4.1121974919	0.5154909665	0.5114166578	0.0040743086
0.68	-1.0	4.1369662923	0.5055032172	0.5013695376	0.0041336796
0.70	-1.0	4.1590047971	0.4956734218	0.4914817618	0.0041916600
0.72	-1.0	4.1781368667	0.4860056702	0.4817574335	0.0042482366
0.74	-1.0	4.1949743335	0.4765026628	0.4721991905	0.0043034723
0.76	1.0	4.2108923878	0.4671659756	0.4628085561	0.0043574195
0.78	1.0	4.2309655831	0.4579962763	0.4535861470	0.0044101293
0.80	1.0	4.2551511731	0.4489935015	0.4445318534	0.0044616480
0.82	1.0	4.2826579125	0.4401570009	0.4356449618	0.0045120391
0.84	-1.0	4.3119635175	0.4314856561	0.4269243520	0.0045613041
0.86	1.0	4.3387484695	0.4229779765	0.4183685493	0.0046094272
0.88	1.0	4.3676234987	0.4146321786	0.4099757200	0.0046564586
0.90	1.0	4.3989235135	0.4064462500	0.4017438031	0.0047024469
0.92	-1.0	4.4312907384	0.3984180017	0.3936705711	0.0047474305
0.94	1.0	4.4605403028	0.3905451113	0.3857536411	0.0047914702
0.96	1.0	4.4913931364	0.3828251572	0.3779905986	0.0048345587
0.98	1.0	4.5242743327	0.3752556472	0.3703789519	0.0048766953
1.00	1.0	4.5587755762	0.3678340412	0.3629161820	0.0049178592
1.02	-1.0	4.5936879964	0.3605577699	0.3555996735	0.0049580963
1.04	1.0	4.6249485778	0.3534242495	0.3484268036	0.0049974459
1.06	-1.0	4.6565022967	0.3464308943	0.3413949288	0.0050359655

G(T) = COS(2T)/EXP(T)

INTERVAL = 1 DTIME = 0.08 N = 63 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 0.399 SEC IDENTIFYING TIME = 0.560 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0.00	-1.0	3.2282859340	1.0000000000	1.0052089289	-0.0052089289
0.08	1.0	3.3106546902	0.9113256429	0.9138245762	-0.0024989333
0.16	1.0	3.4697693572	0.8088850658	0.8127226158	-0.0038375500
0.24	1.0	3.6229758302	0.6977349189	0.7023898844	-0.0046549655
0.32	1.0	3.7695459524	0.5824410622	0.5878962000	-0.0054551378
0.40	1.0	3.9090927033	0.4670164735	0.4731956414	-0.0061791679
0.48	1.0	4.0415311722	0.3548846422	0.3617078451	-0.0068232028
0.56	-1.0	4.0886832247	0.2488657623	0.2562486200	-0.0073828577
0.64	1.0	4.1402563250	0.1511827579	0.1590368299	-0.0078540720
0.72	1.0	4.2696072003	0.0634840345	0.0717196149	-0.0082355804
0.80	-1.0	4.3167180700	-0.0131201911	-0.0045920150	-0.0085281761
0.88	1.0	4.3709604332	-0.0780110589	-0.0692727361	-0.0087383228
0.96	-1.0	4.4269716197	-0.1310066674	-0.1221321248	-0.0088745425
1.04	-1.0	4.4136687114	-0.1723028315	-0.1633597214	-0.0089431101
1.12	-1.0	4.4144798184	-0.2024114594	-0.1934606897	-0.0089507697
1.20	1.0	4.5089793210	-0.2220987190	-0.2131904874	-0.0089082316
1.28	-1.0	4.6084772634	-0.2323248479	-0.2234983846	-0.0088264632
1.36	-1.0	4.6402816777	-0.2341871388	-0.2254703872	-0.0087167515
1.44	-1.0	4.6864017368	-0.2288673134	-0.2202811841	-0.0085861293
1.52	-1.0	4.7468435663	-0.2175841873	-0.2091396497	-0.0084445377
1.60	1.0	4.8995809203	-0.2015522392	-0.1932509062	-0.0083013329
1.68	-1.0	5.0546009616	-0.1819464341	-0.1737850812	-0.0081613529
1.76	1.0	5.2165176980	-0.1598734132	-0.1518451868	-0.0080282264
1.84	1.0	5.4555960131	-0.1363489584	-0.1284446956	-0.0079042628
1.92	-1.0	5.6092016044	-0.1122814683	-0.1044908439	-0.0077906244
2.00	-1.0	5.6862184877	-0.0884610446	-0.0807738084	-0.0076872361
2.08	1.0	5.8472927863	-0.0655536807	-0.0579567668	-0.0075969140
2.16	-1.0	6.0036103436	-0.0440999708	-0.0365779126	-0.0075220582
2.24	1.0	6.1610142259	-0.0245177066	-0.0170529128	-0.0074647938
2.32	-1.0	6.3126348444	-0.0071077133	0.0003194417	-0.0074271549
2.40	1.0	6.4646810697	0.0079377287	0.0153448450	-0.0074071163
2.48	-1.0	6.6106145156	0.0205245051	0.0279263152	-0.0074018100
2.56	-1.0	6.6785828331	0.0306449294	0.0380566604	-0.0074117310
2.64	1.0	6.8299667771	0.0383651905	0.0457986956	-0.0074335051
2.72	-1.0	6.9765971274	0.0438124775	0.0512757831	-0.0074633056
2.80	-1.0	7.0465132684	0.0471622096	0.0546632366	-0.0075010269
2.88	1.0	7.2009668042	0.0486257315	0.0561684871	-0.0075427557
2.96	1.0	7.4299985447	0.0484387680	0.0560273976	-0.0075886296
3.04	1.0	7.6505341283	0.0468508677	0.0544859034	-0.0076350357
3.12	1.0	7.8615636055	0.0441159989	0.0517984495	-0.0076824506
3.20	-1.0	7.9841912936	0.0404844062	0.0482122863	-0.0077278800
3.28	-1.0	8.0292519110	0.0361957806	0.0439640393	-0.0077682587
3.36	-1.0	8.0807295456	0.0314737508	0.0392780165	-0.0078042657
3.44	-1.0	8.1405461864	0.0265216627	0.0343588759	-0.0078372132
3.52	-1.0	8.2101314557	0.0215195813	0.0293844828	-0.0078649015
3.60	1.0	8.3688064159	0.0166224225	0.0245115845	-0.0078891621
3.68	1.0	8.6061540449	0.0119591021	0.0198673733	-0.0079082712
3.76	-1.0	8.7602359189	0.0076325788	0.0155531117	-0.0079205329
3.84	1.0	8.9188171201	0.0037206549	0.0116448033	-0.0079241484
3.92	1.0	9.1535968827	0.0002774019	0.0081944600	-0.0079170581
4.00	1.0	9.3815447472	-0.0026649261	0.0052362844	-0.0079012105
4.08	-1.0	9.5232859198	-0.0050936172	0.0027815408	-0.0078751580
4.16	-1.0	9.5891821119	-0.0070129878	0.0008246234	-0.0078376112
4.24	1.0	9.7411167207	-0.0084417369	-0.0006547309	-0.0077870060

G(T) = COS(2T)/EXP(T)

INTERVAL = 4 DTIME = 0,08 N = 63 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 1,595 SEC IDENTIFYING TIME = 2,057 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0,00	-1,0	3,2288803087	1.0000000000	0,9934358668	0,0065641332
0,02	-1,0	3,2283669779	0,9794146189	0,9802701757	-0,0008555568
0,04	-1,0	3,2283278343	0,9577165523	0,9586648887	-0,0009483364
0,06	-1,0	3,2287912495	0,9349919619	0,9360797238	-0,0010877620
0,08	1,0	3,2496829098	0,9113256429	0,9105381511	0,0007874918
0,10	1,0	3,2904040147	0,8868009118	0,8888985535	-0,0020976417
0,12	1,0	3,3308334355	0,8614995009	0,8634033505	-0,0019038496
0,14	1,0	3,3709508749	0,8355014600	0,8375411538	-0,0020396939
0,16	1,0	3,4107376006	0,8088850658	0,8090395946	-0,0001545288
0,18	1,0	3,4501764192	0,7817267378	0,7847604391	-0,0030337013
0,20	1,0	3,4892516509	0,7541009613	0,7569301373	-0,0028291760
0,22	1,0	3,5279490997	0,7260802172	0,7290332164	-0,0029529992
0,24	1,0	3,5662560237	0,6977349189	0,6987911009	-0,0010561820
0,26	1,0	3,6041611032	0,6691333547	0,6730514679	-0,0039181133
0,28	1,0	3,6416544066	0,6403416378	0,6440401181	-0,0036984804
0,30	1,0	3,6787273556	0,6114236617	0,6152294713	-0,0038058096
0,32	1,0	3,7153726892	0,5824410622	0,5843343060	-0,0018932438
0,34	1,0	3,7515844266	0,5534531850	0,5581873440	-0,0047341590
0,36	1,0	3,7873578276	0,5245170590	0,5290130166	-0,0044959576
0,38	1,0	3,8226893542	0,4956873758	0,5002710223	-0,0045836465
0,40	1,0	3,8575766300	0,4670164735	0,4696689658	-0,0026524923
0,42	1,0	3,8920183994	0,4385543271	0,4440241844	-0,0054698573
0,44	1,0	3,9260144863	0,4103485426	0,4155593533	-0,0052108107
0,46	1,0	3,9595657517	0,3824443570	0,3877214729	-0,0052771159
0,48	1,0	3,9926740521	0,3548846422	0,3582071337	-0,0033224915
0,50	1,0	4,0253421954	0,3277099140	0,3338303175	-0,0061204035
0,52	1,0	4,0575739000	0,3009583447	0,3067966800	-0,0058383353
0,54	1,0	4,0893737504	0,2746657805	0,2805474702	-0,0058816897
0,56	-1,0	4,1008478999	0,2488657623	0,2527679607	-0,0039021984
0,58	-1,0	4,0926258523	0,2235895502	0,2302690000	-0,0066794498
0,60	-1,0	4,0848582891	0,1988661521	0,2052394968	-0,0063733447
0,62	-1,0	4,0775938948	0,1747223546	0,1811152701	-0,0063929155
0,64	1,0	4,0907778705	0,1511827579	0,1555706606	-0,0043879027
0,66	1,0	4,1238301261	0,1282698134	0,1354138220	-0,0071440087
0,68	1,0	4,1566474335	0,1060038636	0,1128174426	-0,0068135790
0,70	1,0	4,1892265830	0,0844031853	0,0912121933	-0,0068090080
0,72	1,0	4,2215651148	0,0634840345	0,0682656971	-0,0047816626
0,74	1,0	4,2536612938	0,0432606938	0,0507719666	-0,0075112728
0,76	1,0	4,2855140852	0,0237455219	0,0309033567	-0,0071578347
0,78	1,0	4,3171231279	0,0049490050	0,0120792265	-0,0071302216
0,80	-1,0	4,3285894560	-0,0131201911	-0,0080383300	-0,0050818611
0,82	-1,0	4,3205372947	-0,0304551657	-0,0226687074	-0,0077864582
0,84	-1,0	4,3131119071	-0,0470507279	-0,0396390913	-0,0074116365
0,86	-1,0	4,3063564328	-0,0629033399	-0,0555403647	-0,0073629752
0,88	1,0	4,3202104188	-0,0780110589	-0,0727187194	-0,0052923394
0,90	1,0	4,3540880274	-0,0923734783	-0,0843939927	-0,0079794857
0,92	1,0	4,3878802027	-0,1059916687	-0,0984072381	-0,0075844306
0,94	1,0	4,4215778438	-0,1188681171	-0,1113517666	-0,0075163505
0,96	-1,0	4,4352732941	-0,1310066674	-0,1255815883	-0,0054250790
0,98	-1,0	4,4295821544	-0,1424124588	-0,1343159930	-0,0080964658
1,00	-1,0	4,4246411413	-0,1530918657	-0,1454089294	-0,0076829362
1,02	-1,0	4,4204849428	-0,1630524361	-0,1554554286	-0,0075970076
1,04	-1,0	4,4171455057	-0,1723028315	-0,1668127214	-0,0054901100
1,06	-1,0	4,4146520793	-0,1808527653	-0,1727106946	-0,0081420707

G(T) = COS(2T)/EXP(T)

INTERVAL = 1 DTIME = 0,02 N = 255 A = 1.00

INCLUDING DC INPUT OFFSET $ OUTPUT POLYNOMIAL DRIFT 0.1A(1+T+T**2)

CORRELATION TIME = 6,436 SEC IDENTIFYING TIME = 7,234 SEC

TIME	X(T)	Y(T)	G(T)	ESTIMATED G(T)	ERROR
0,00	1,0	3,2546167594	1,0000000000	1,0012084267	-0,0012084267
0,02	1,0	3,2980257429	0,9794146189	0,9794226792	-0,0000080603
0,04	1,0	3,3409800350	0,9577165523	0,9584695005	-0,0007529482
0,06	1,0	3,3834606247	0,9349919619	0,9359501784	-0,0009582165
0,08	1,0	3,4254503309	0,9113256429	0,9125242414	-0,0011985985
0,10	1,0	3,4669337663	0,8868009118	0,8882322459	-0,0014313341
0,12	1,0	3,5078972952	0,8614995009	0,8631598690	-0,0016603682
0,14	1,0	3,5483289933	0,8355014600	0,8373866384	-0,0018851784
0,16	-1,0	3,5683193479	0,8088850658	0,8109904763	-0,0021054105
0,18	1,0	3,5883822926	0,7817267378	0,7840474797	-0,0023207420
0,20	1,0	3,6280312056	0,7541009613	0,7566317594	-0,0025307981
0,22	-1,0	3,6472586063	0,7260802172	0,7288156922	-0,0027354750
0,24	1,0	3,6665796167	0,6977349189	0,7006696536	-0,0029347347
0,26	1,0	3,7055087152	0,6691333547	0,6722616430	-0,0031282883
0,28	-1,0	3,7240394359	0,6403416378	0,6436575512	-0,0033159134
0,30	-1,0	3,7227885750	0,6114236617	0,6149209936	-0,0034973319
0,32	1,0	3,7417940261	0,5824410622	0,5861135884	-0,0036725262
0,34	1,0	3,7804697804	0,5534531850	0,5572947665	-0,0038415815
0,36	1,0	3,8187073100	0,5245170590	0,5285213059	-0,0040042469
0,38	1,0	3,8564987132	0,4956873758	0,4998479301	-0,0041605543
0,40	-1,0	3,8739381741	0,4670164735	0,4713270747	-0,0043106012
0,42	-1,0	3,8716437485	0,4385543271	0,4430085824	-0,0044542554
0,44	-1,0	3,8697551916	0,4103485426	0,4149398568	-0,0045913143
0,46	1,0	3,8882100412	0,3824443570	0,3871663281	-0,0047219711
0,48	1,0	3,9264210501	0,3548846422	0,3597306712	-0,0048460289
0,50	-1,0	3,9443790784	0,3277099140	0,3326736201	-0,0049637060
0,52	1,0	3,9625973234	0,3009583447	0,3060332033	-0,0050748586
0,54	-1,0	3,9806888339	0,2746657805	0,2798454306	-0,0051796500
0,56	1,0	3,9990665549	0,2488657623	0,2541439925	-0,0052782302
0,58	1,0	4,0372417711	0,2235895502	0,2289602839	-0,0053707337
0,60	1,0	4,0751038310	0,1988661521	0,2043235229	-0,0054573708
0,62	-1,0	4,0927432914	0,1747223546	0,1802604712	-0,0055381166
0,64	-1,0	4,0907744694	0,1511827579	0,1567956302	-0,0056128723
0,66	1,0	4,1092325369	0,1282698134	0,1339517143	-0,0056819009
0,68	-1,0	4,1276292800	0,1060038636	0,1117490382	-0,0057451746
0,70	-1,0	4,1264763249	0,0844031853	0,0902059143	-0,0058027290
0,72	-1,0	4,1259061620	0,0634840345	0,0693385643	-0,0058545298
0,74	-1,0	4,1259497487	0,0432606938	0,0491615159	-0,0059008222
0,76	1,0	4,1465350353	0,0237455219	0,0296873592	-0,0059418372
0,78	1,0	4,1870651771	0,0049490050	0,0109268162	-0,0059778112
0,80	1,0	4,2274206954	-0,0131201911	-0,0071112417	-0,0060089494
0,82	1,0	4,2675826504	-0,0304551657	-0,0244196255	-0,0060355402
0,84	-1,0	4,2876341270	-0,0470507279	-0,0409931117	-0,0060576162
0,86	1,0	4,3080812966	-0,0629033399	-0,0568281701	-0,0060751698
0,88	1,0	4,3484294473	-0,0780110589	-0,0719225965	-0,0060884624
0,90	1,0	4,3885619623	-0,0923734783	-0,0862757386	-0,0060977398
0,92	-1,0	4,4085634765	-0,1059916687	-0,0998884479	-0,0061032208
0,94	1,0	4,4289416921	-0,1188681171	-0,1127629150	-0,0061052021
0,96	1,0	4,4692034036	-0,1310066674	-0,1249029734	-0,0061036940
0,98	1,0	4,5092334765	-0,1424124588	-0,1363136879	-0,0060987709
1,00	1,0	4,5490172562	-0,1530918657	-0,1470014403	-0,0060904253
1,02	-1,0	4,5686420468	-0,1630524361	-0,1569735067	-0,0060789295
1,04	1,0	4,5886181711	-0,1723028315	-0,1662383223	-0,0060645091
1,06	-1,0	4,6085557357	-0,1808527653	-0,1748053093	-0,0060474560

VITA

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