GNU Octave, version 3.8.2

Octave was configured for "x86_64-pc-linux-gnu".

Additional information about Octave is available at http://www.octave.org.

Please contribute if you find this software useful.
For more information, visit http://www.octave.org/get-involved.html

a = 1.000000
l = 1.000000
n = 10
k = 10
hx = 0.100000
ht = 0.050000

alpha = 0.400000
beta = 0.010000

B =
   0 -1
   1   0

C =
   2.00000 -0.40000
   0.40000   2.00000

~C =
   2.00000   0.40000
  -0.40000   2.00000

Iteration #0 error: 0.000207
Iteration #1 w(t):
 Columns 1 through 7:

  -24.50000   1.04688   -7.37500   3.73438   -7.00000   5.87500   1.00000
   15.79688   6.34375   -8.34375   25.50000   -7.75000   7.25000   1.31250
   -8.67188   -4.76562   -7.37500   -6.28125   1.12500   1.31250   -2.82812

 Columns 8 through 11:

    3.60938   1.00000   7.20312   27.87500
   -7.75000   0.78125   3.90625   -3.07812

14.67188 -3.53125 8.59375 -14.00000

Iteration #1 h(t):
1

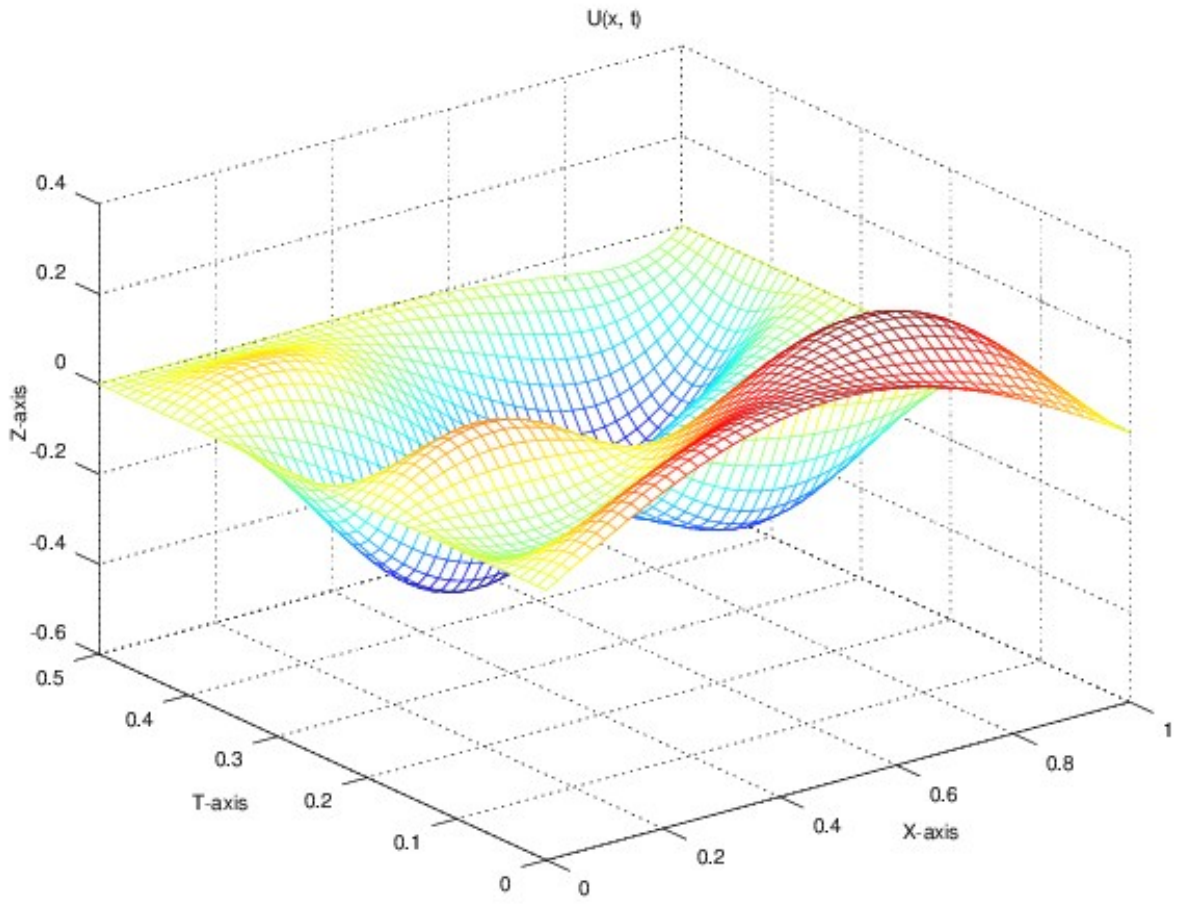
Iteration #1 error: 0.000207

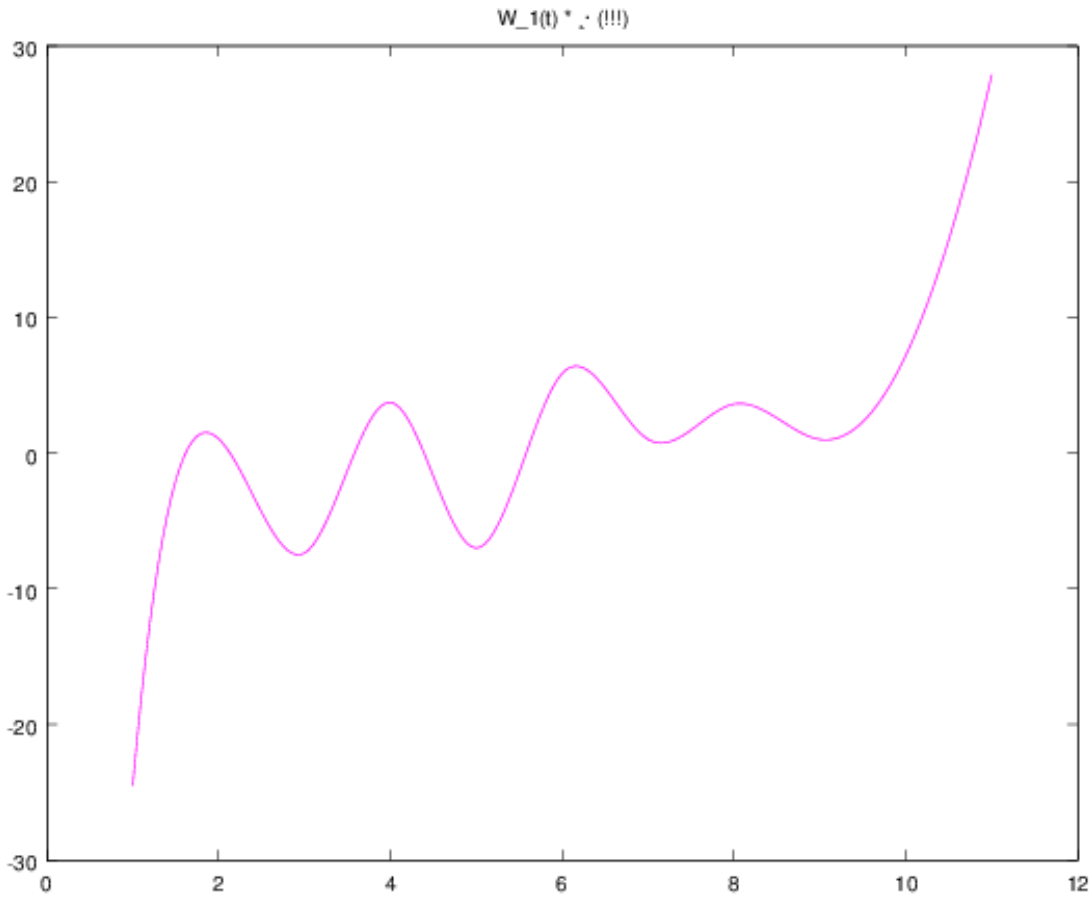
Damper # 1
x_1 = 0.250000
w_1(t) * δ
-24.500000 1.046880 -7.375000 3.734380 -7.000000 5.875000 1.000000 3.609380 1.000000 7.203120 27.875000

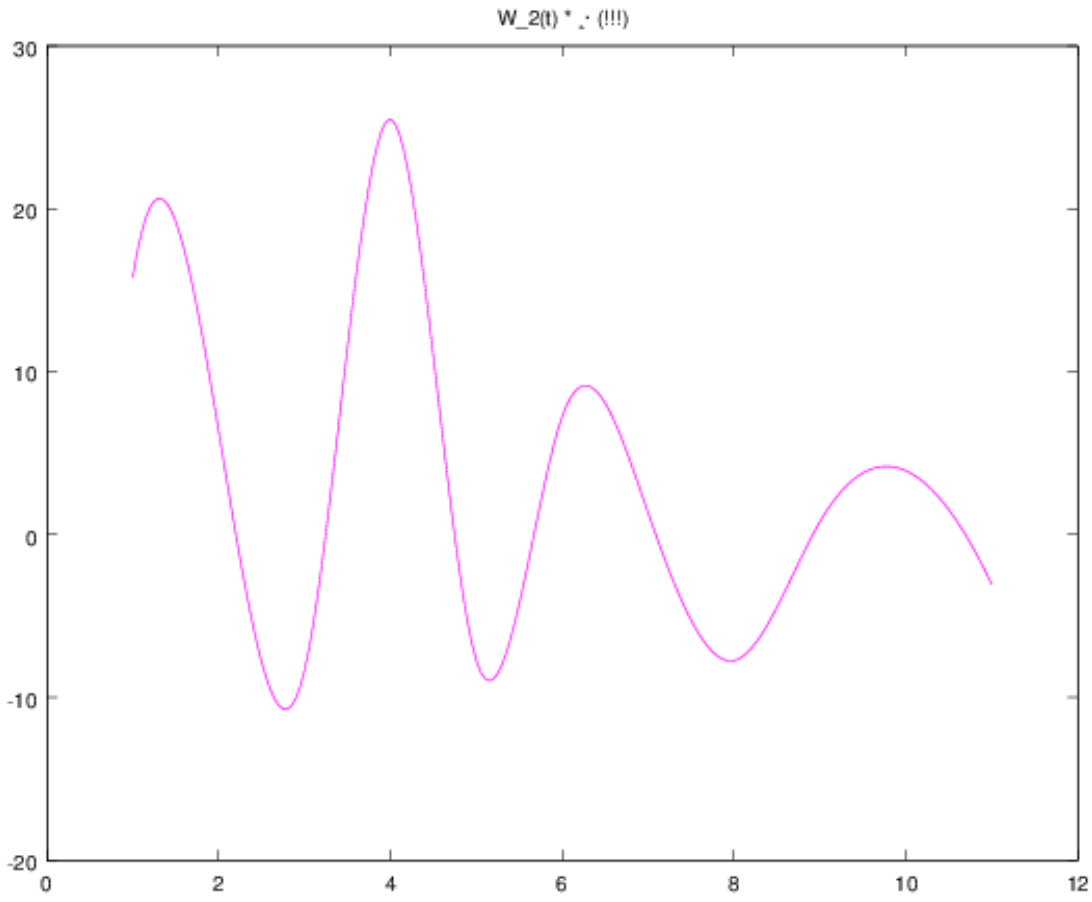
Damper # 2
x_2 = 0.500000
w_2(t) * δ
15.796880 6.343750 -8.343750 25.500000 -7.750000 7.250000 1.312500 -7.750000 0.781250 3.906250 -3.078120

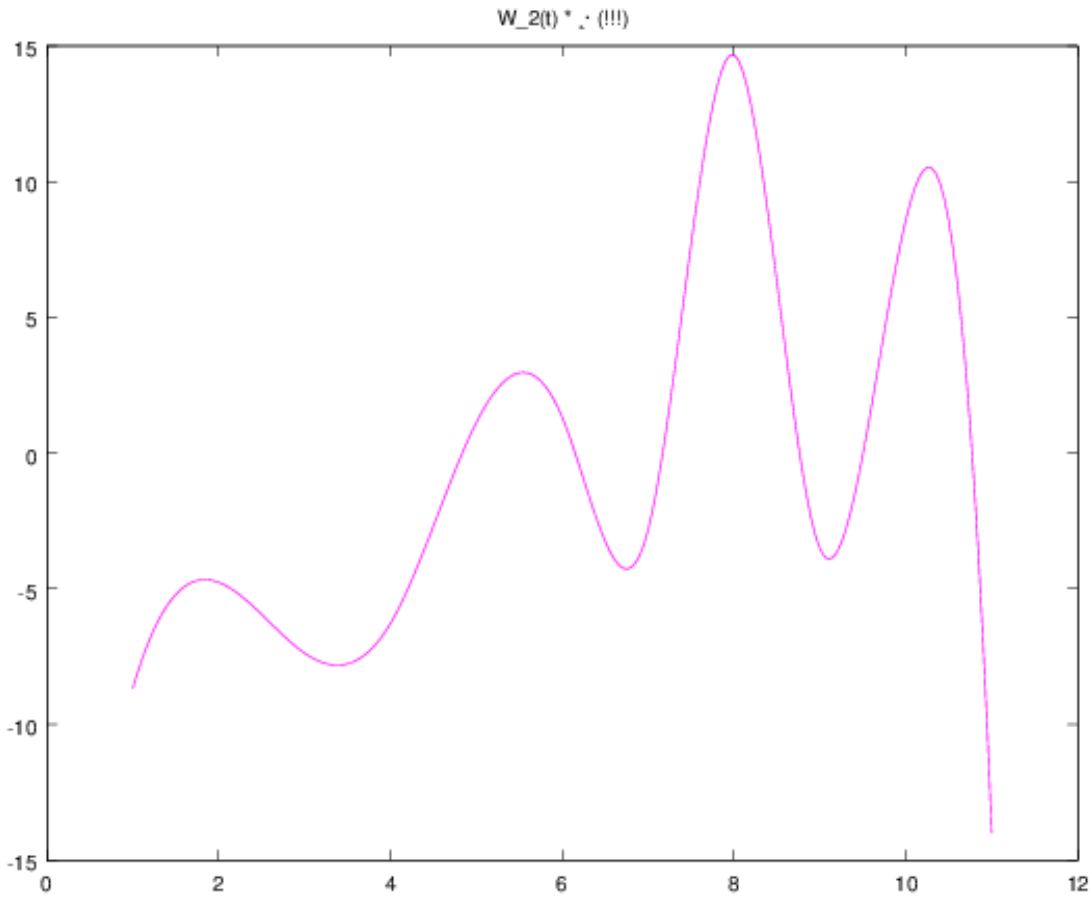
Damper # 3
x_3 = 0.750000
w_3(t) * δ
-8.671880 -4.765620 -7.375000 -6.281250 1.125000 1.312500 -2.828120 14.671880 -3.531250 8.593750 -14.000000

u(x, t)
T = 0.000000: 0.000000 0.077254 0.146946 0.202254 0.237764 0.250000 0.237764 0.202254 0.146946 0.077254 0.000000
T = 0.050000: 0.000000 0.034297 0.091093 0.150309 0.199393 0.232167 0.246316 0.239981 0.207657 0.135863 0.000000
T = 0.100000: 0.000000 -0.047978 -0.035952 0.021203 0.103539 0.188767 0.253796 0.276316 0.239200 0.139558 0.000000
T = 0.150000: 0.000000 -0.002851 -0.010778 0.000477 0.033438 0.071592 0.092049 0.081709 0.047820 0.014086 0.000000
T = 0.200000: 0.000000 0.081950 0.116800 0.083486 -0.006897 -0.119440 -0.210442 -0.244740 -0.210535 -0.122084 0.000000
T = 0.250000: 0.000000 -0.023927 -0.057675 -0.107080 -0.172232 -0.238041 -0.280623 -0.280401 -0.228581 -0.127246 0.000000
T = 0.300000: 0.000000 -0.161119 -0.305437 -0.383551 -0.377979 -0.311671 -0.227486 -0.158335 -0.111922 -0.073381 0.000000
T = 0.350000: 0.000000 -0.094970 -0.192417 -0.279750 -0.343999 -0.367361 -0.339360 -0.267983 -0.174444 -0.077148 0.000000
T = 0.400000: 0.000000 0.038050 0.022581 -0.044966 -0.148298 -0.261322 -0.349250 -0.376197 -0.321345 -0.192298 0.000000
T = 0.450000: 0.000000 0.038234 0.042911 0.018891 -0.027904 -0.088640 -0.152489 -0.203025 -0.213519 -0.148232 0.000000
T = 0.500000: 0.000000 0.000771 -0.000912 -0.000067 0.001571 -0.000103 -0.007330 -0.021183 -0.040016 -0.053168 0.000000


U(x, t)
0.4
0.2
0
-0.2
-0.4
-0.6
Z-axis
0.5
0.4
0.3
T-axis
0.2
0.1
0
0
0.2
0.4
0.6
X-axis
0.8
1


W_1(t) * ,· (!!!)
30
20
10
0
-10
-20
-30
0
2
4
6
8
10
12


W_2(t) * ,· (!!!)
30
20
10
0
-10
-20
0
2
4
6
8
10
12


W_2(t) * ,· (!!!)
15
10
5
0
-5
-10
-15
0
2
4
6
8
10
12