GNU Octave, version 3.8.2
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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

Read http://www.octave.org/bugs.html to learn how to submit bug reports.
For information about changes from previous versions, type 'news'.

a = 1.000000
l = 1.000000
T = 0.200000

ε = 0.000100

n = 10
k = 10
hx = 0.100000
ht = 0.020000

alpha = 1.000000
beta = 0.010000

B =
   0 -1
   1   0

C =
   2.0000 -1.0000
   1.0000   2.0000

~C =
   2.0000   1.0000
  -1.0000   2.0000

Iteration #0 error: 0.000098
Iteration #1 w(t):
 Columns 1 through 8:

  -10.6249   -7.7657 -21.2969   5.0625   7.6407   14.3595   30.8905   15.5469

Columns 9 through 11:

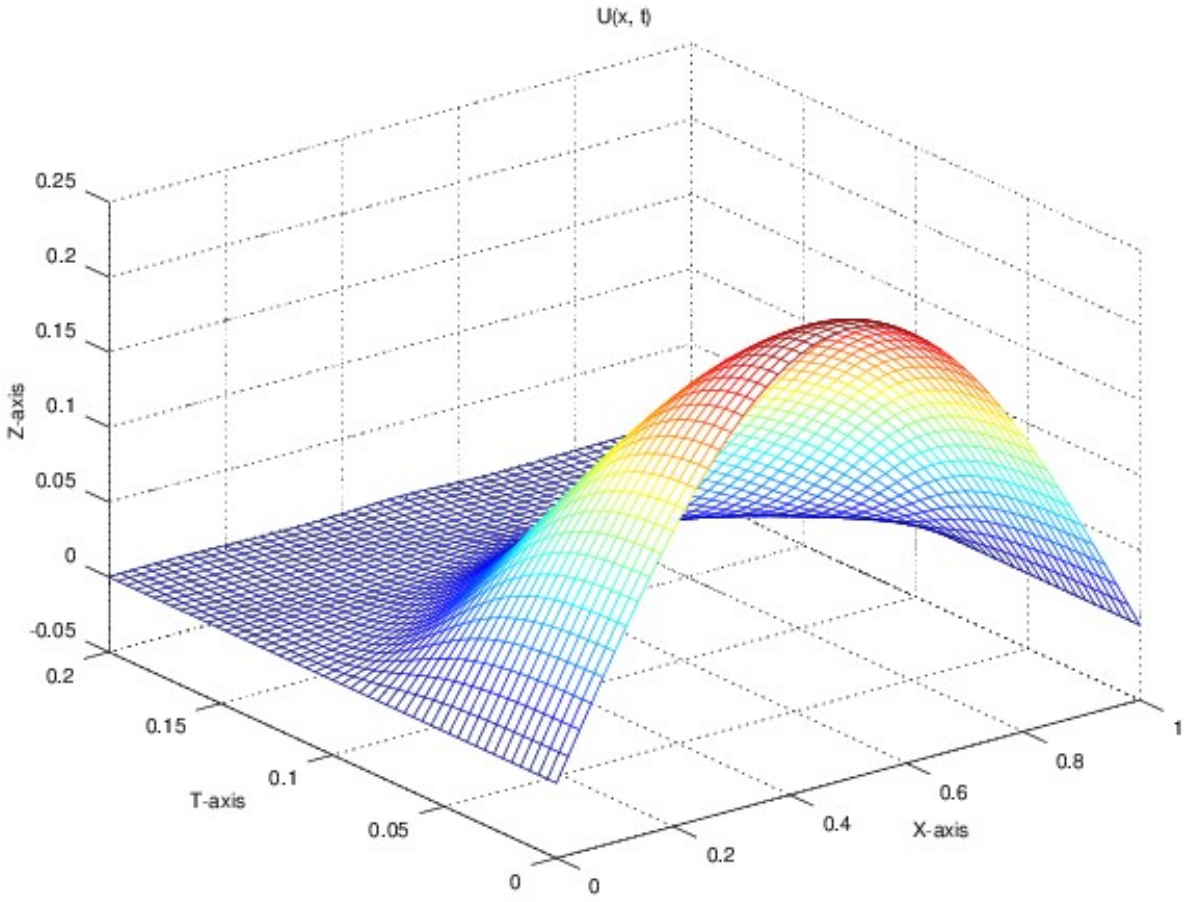
10.1562 -11.4061 22.8126

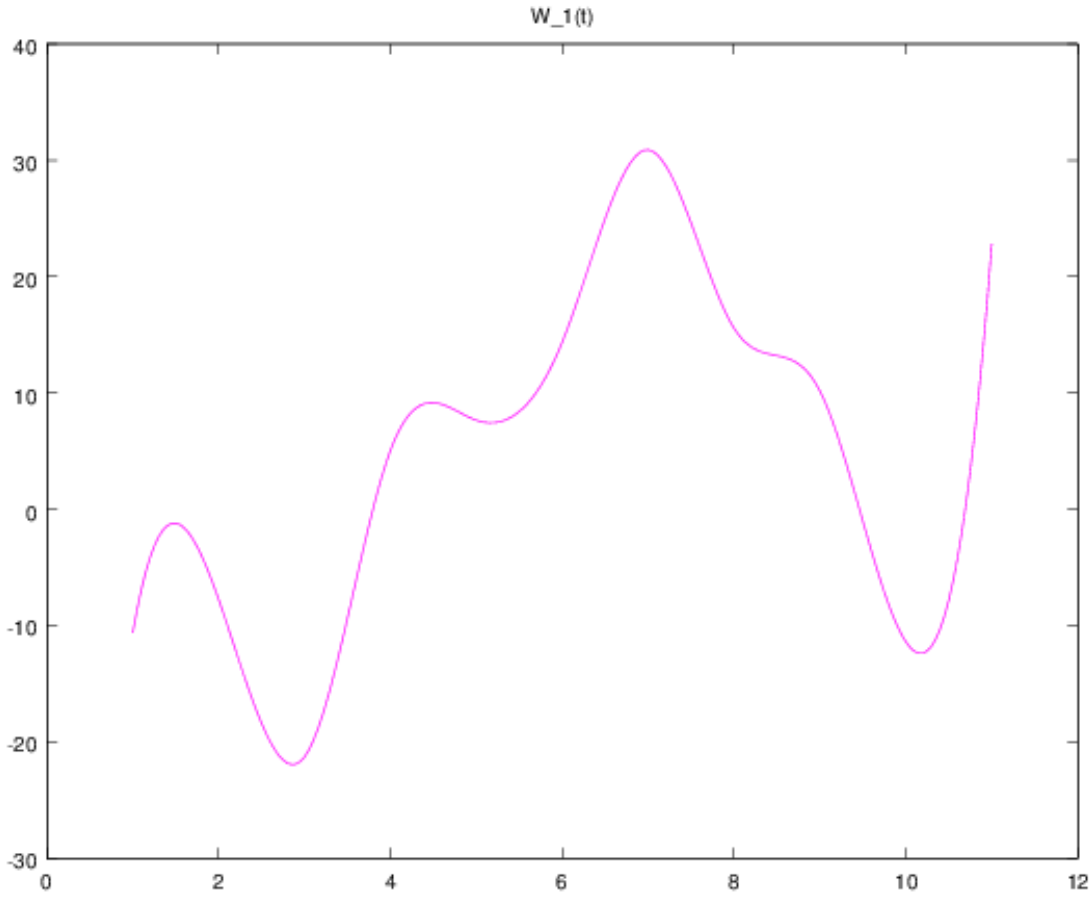
Iteration #1 h(t):
10

Iteration #1 error: 0.000098

Damper # 1
x_1 = 0.500000
w_1(t)
-10.624900 -7.765700 -21.296900 5.062500 7.640700 14.359500 30.890500 15.546900 10.156200 -11.406100 22.812600

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 = 0.020000: 0.000000 0.075896 0.143916 0.196799 0.228910 0.238127 0.228910 0.196799 0.143916 0.075896 0.000000
T = 0.040000: 0.000000 0.070757 0.132149 0.176620 0.200694 0.206649 0.200694 0.176620 0.132149 0.070757 0.000000
T = 0.060000: 0.000000 0.057421 0.105682 0.139592 0.158868 0.165054 0.158868 0.139592 0.105682 0.057421 0.000000
T = 0.080000: 0.000000 0.034296 0.066526 0.094670 0.115497 0.124264 0.115497 0.094670 0.066526 0.034296 0.000000
T = 0.100000: 0.000000 0.012855 0.030783 0.053112 0.073273 0.082524 0.073273 0.053112 0.030783 0.012855 0.000000
T = 0.120000: 0.000000 0.004276 0.011204 0.022020 0.034801 0.043011 0.034801 0.022020 0.011204 0.004276 0.000000
T = 0.140000: 0.000000 0.002240 0.003916 0.006507 0.011408 0.015837 0.011408 0.006507 0.003916 0.002240 0.000000
T = 0.160000: 0.000000 -0.000339 0.000785 0.002713 0.003947 0.004246 0.003947 0.002713 0.000785 -0.000339 0.000000
T = 0.180000: 0.000000 -0.000288 -0.000154 0.000399 0.000929 0.001190 0.000929 0.000399 -0.000154 -0.000288 0.000000
T = 0.200000: 0.000000 0.000543 -0.000100 -0.000918 -0.000186 0.001188 -0.000186 -0.000918 -0.000100 0.000543 0.000000


U(x, t)
0.25
0.2
0.15
0.1
0.05
0
-0.05
Z-axis
0.2
0.15
0.1
0.05
0
T-axis
0
0.2
0.4
0.6
0.8
1
X-axis


W_1(t)
40
30
20
10
0
-10
-20
-30
0
2
4
6
8
10
12