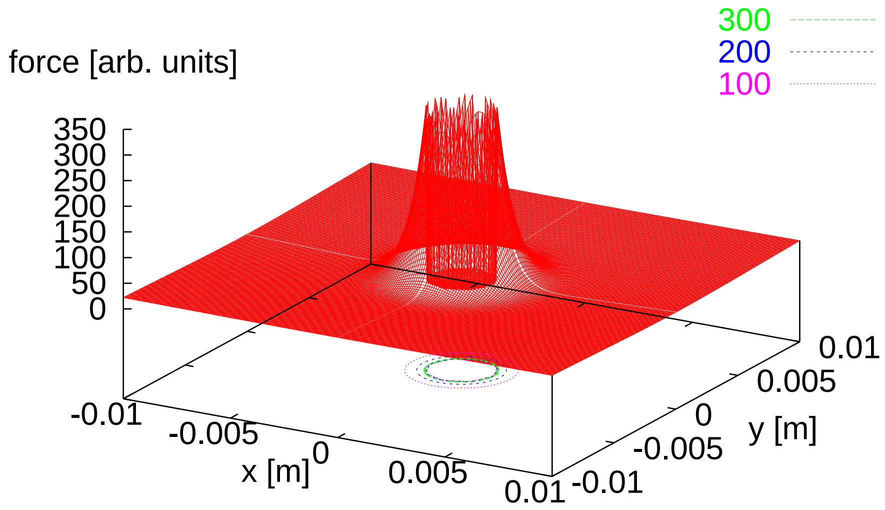
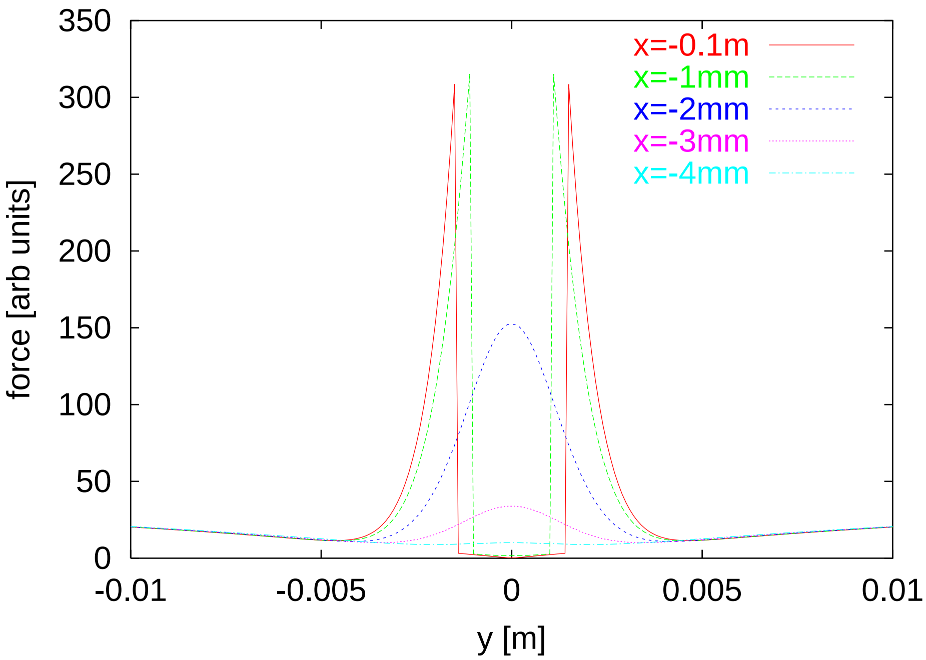
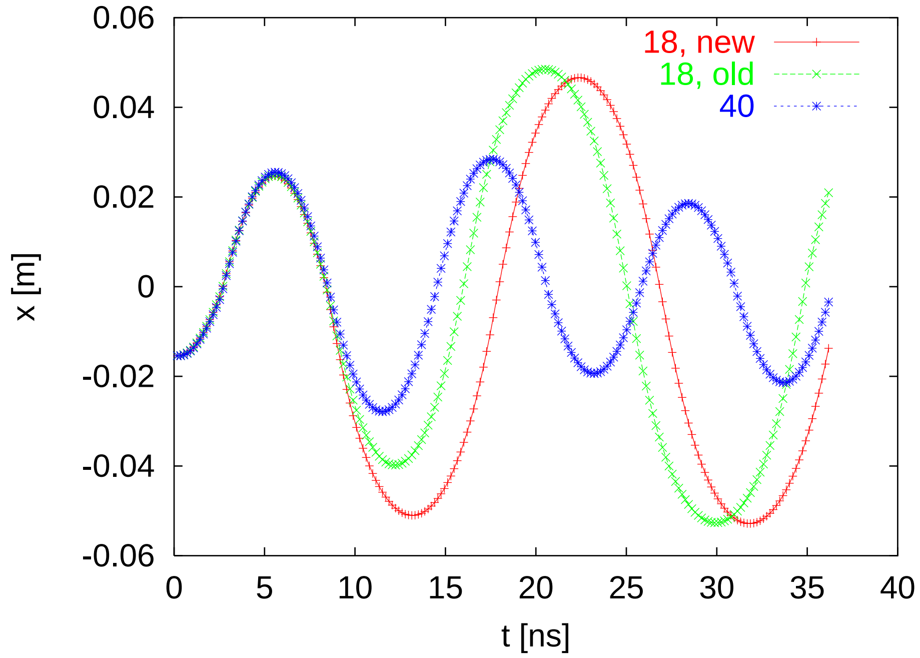
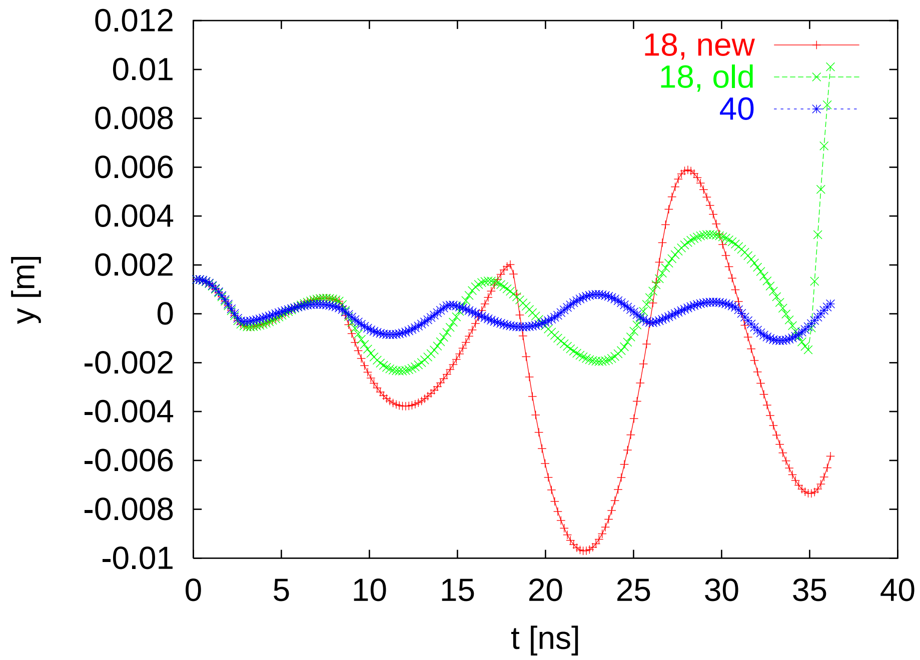
Region of Imprecise or Wrong Calculation



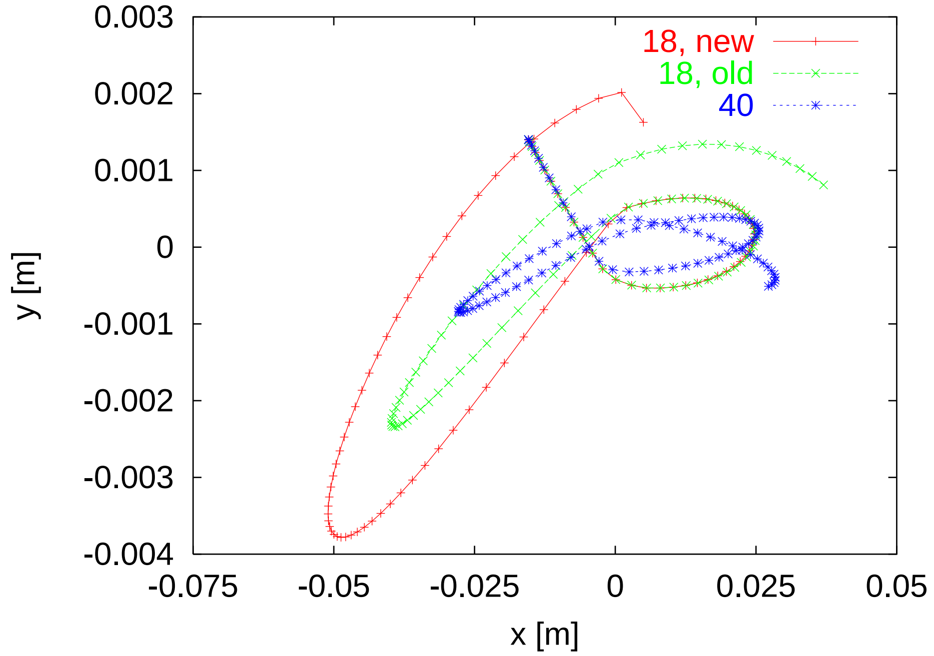


Disagreement Between Different PDE Solvers

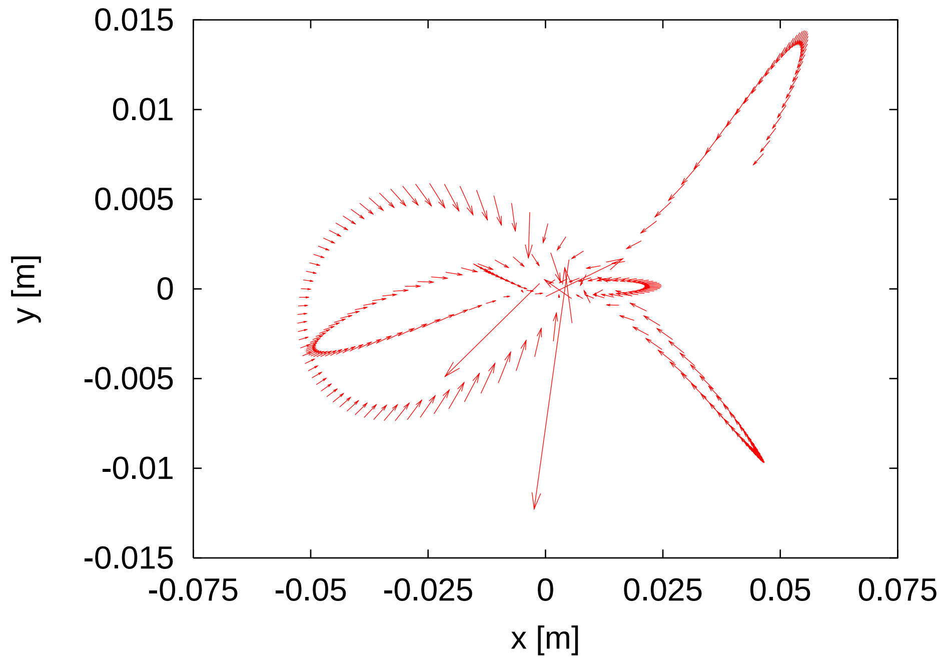




The Cause

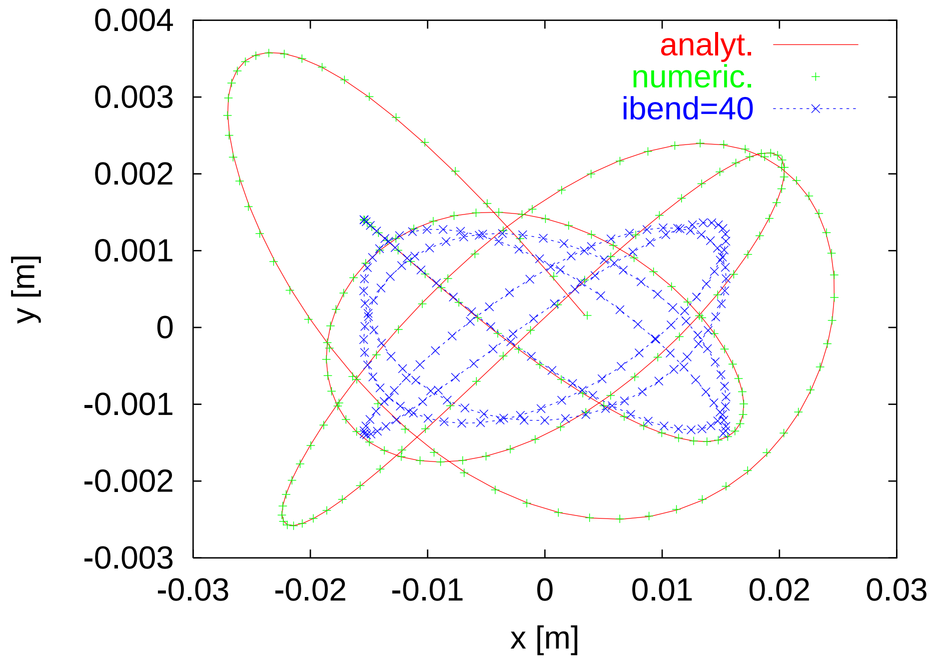


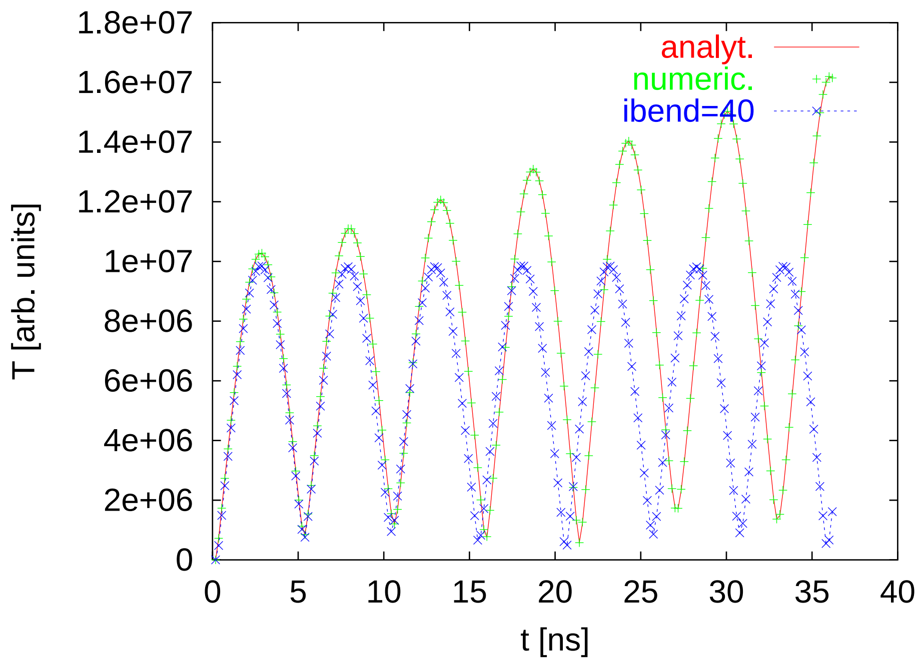
0.003
0.002
0.001
0
-0.001
-0.002
-0.003
-0.004
y [m]
-0.075
-0.05
-0.025
0
0.025
0.05
x [m]
18, new
18, old
40



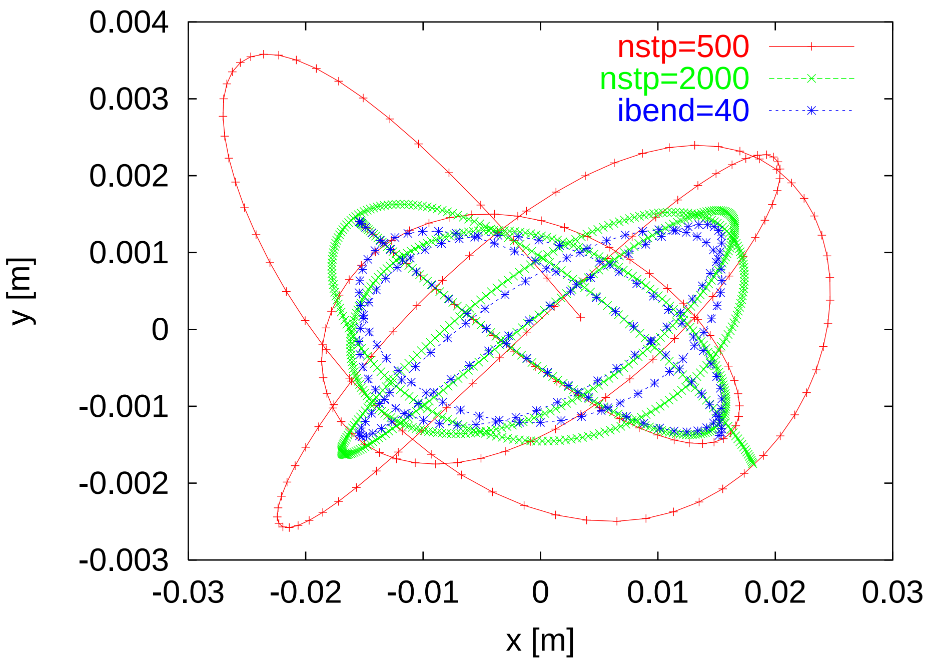
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
y [m]
-0.075
-0.05
-0.025
0
0.025
0.05
0.075
x [m]

Remaining Discrepancy

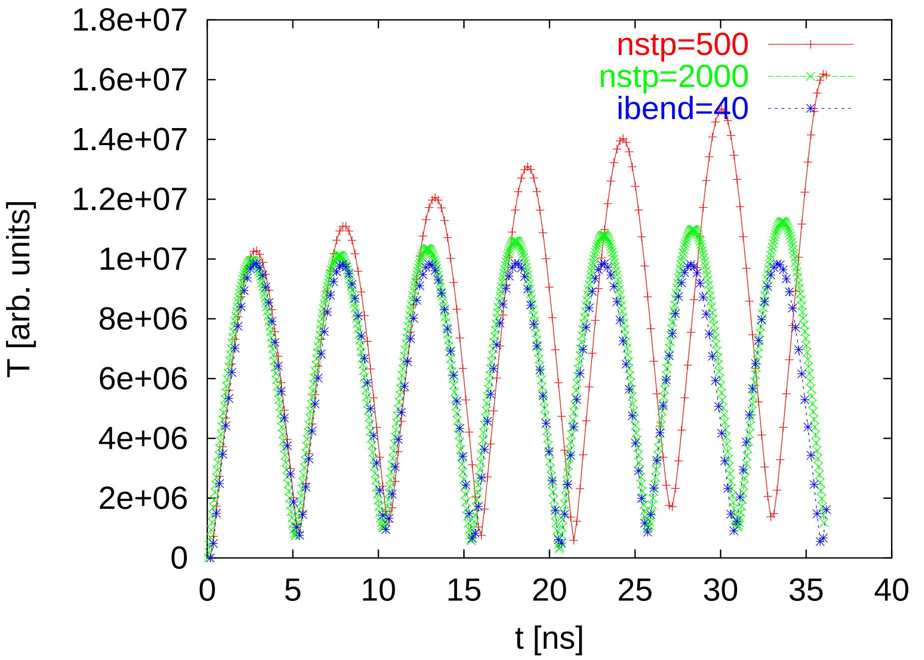




Solution



nstp=500
nstp=2000
ibend=40
0.004
0.003
0.002
0.001
0
-0.001
-0.002
-0.003
-0.03
-0.02
-0.01
0
0.01
0.02
0.03
x [m]
y [m]



nstp=500
nstp=2000
ibend=40
1.8e+07
1.6e+07
1.4e+07
1.2e+07
1e+07
8e+06
6e+06
4e+06
2e+06
0
0
5
10
15
20
25
30
35
40
t [ns]
T [arb. units]

Preliminary Results