Kepler Problem Global Error Convergence
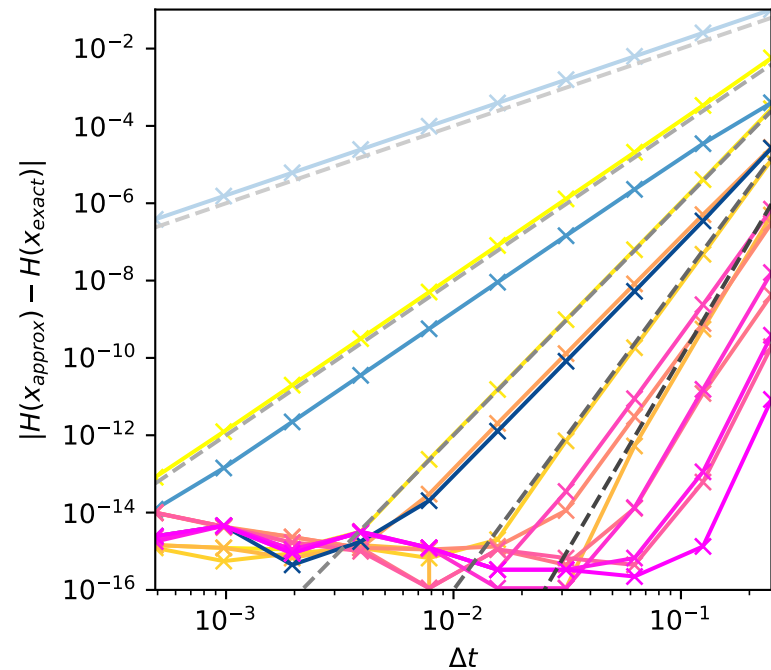
Hamiltonian

Solution

$|H(x_{approx}) - H(x_{exact})|$

$||x_{exact} - x_{approx}||_2$

Δt

Legend:
- Gauss-2 or HBVM(1,1)
- Gauss-HBVM(2,1)
- Gauss-HBVM(3,1)
- Gauss-HBVM(4,1)
- Gauss-HBVM(5,1)
- Gauss-4 or HBVM(2,2)
- Gauss-HBVM(3,2)
- Gauss-HBVM(4,2)
- Gauss-HBVM(5,2)
- Gauss-HBVM(6,2)
- Gauss-6 or HBVM(3,3)
- Gauss-HBVM(4,3)
- Gauss-HBVM(5,3)
- Gauss-HBVM(6,3)
- Gauss-HBVM(7,3)
- Slope order 2
- Slope order 4
- Slope order 6
- Slope order 8
- Slope order 10