

Efficient implementation of geometric integrators for separable Hamiltonian problems

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Abstract

We here investigate the efficient implementation of the energy-conserving methods named Hamiltonian Boundary Value Methods (HBVMs) recently introduced for the numerical solution of Hamiltonian problems. In this note, we describe an iterative procedure, based on a triangular splitting, for solving the generated discrete problems, when the problem at hand is separable.

MSC: 65P10; 65L05.

Keywords: separable Hamiltonian problems, Energy-conserving Runge-Kutta methods, Hamiltonian Boundary Value Methods.

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