A Parallel Iterative Method for Hamiltonian Mechanics and Discrete Optimal Control Theory

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Recently, we have introduced a parallel iterative method for discrete Lagrangian mechanics that allow us to numerically compute trajectories of the continuous system for boundary value problems \cite{FeMaSaIFAC, our-paper-in-progress}. In this work, we will study the extension to Hamiltonian systems and specially in systems that appears in optimal control theory.