

Kolloquium für Mechanik

Referent: **Dr. Dominik Kern**
Professur Technische Mechanik, Technische Universität Chemnitz

Datum: Freitag, 19. Oktober 2018, 12:00 Uhr
Ort: Neuer Hörsaal, Gebäude 30.46 (Chemie)

Titel: **Variational Integrators for Mechanical Systems**

Abstract

Variational integrators are numerical integrators for Hamiltonian systems derived from the Euler-Lagrange equations of a discretized Hamilton's principle. Variational integrators are momentum-preserving and symplectic, as consequence they are more robust and have a better long-term behavior than generic methods for ordinary differential equations. This presentation shows how to derive variational integrators for multi-body systems from scratch and outlines the extensions to thermo-mechanical systems and to space-continuous systems.

Alle Interessenten sind herzlich eingeladen.
Prof. Dr.-Ing. Wolfgang Seemann