

# Advances in Computational Mechanics

Einladung zum Vortrag

## **A stable and efficient time integration scheme for contact problems**

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In this talk, a stable energy consistent time integration scheme for dynamical contact problems is presented. It allows for an accurate computation of the contact stresses and can be applied to threedimensional frictional problems as well as models that include thermodynamical effects. The accurate simulation of rotating bodies such as car tires uses an extension of a corotational approach. For increasing efficiency in the case of a small moving contact zone, a nonconforming domain decomposition is illustrated and applied to the simulation of plastic sheet metal forming with hardening. Furthermore, recent results on a posteriori error estimator for contact problems are described.

**Mittwoch, 12. Sept. 2007  
13:30 Uhr**

**Seminarraum LNM  
MW 1237**



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