



## Lecture No. 60

**Czech Society for Mechanics  
and Institute of Thermomechanics, CAS**

invite you to a lecture and discussion within  
the lecture series **Institute of Thermomechanics Seminar**

### Dynamical damage and phase-field fracture models

given by

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Institute of Thermomechanics, Czech Academy of Sciences

Damage is a phenomenon/concept in continuum mechanics of solid materials undergoing various degradation processes with numerous applications in engineering and in computational mechanics and (geo)physics. Combination with inertial effects may be important modelling issue to prevent various undesired effects otherwise occurring in quasistatic models. Various damage models and their variants as a phase-field fracture will be overviewed. Also, several numerical approaches will be presented, amenable to compute vibrations or waves emitted during fast damage/fracture, together with various extensions of the basic scenario, combining mass or heat transfer, or plasticity.

**The lecture will be held on Wednesday, January 9, 2019 at 10:00 in the building  
of the Institute of Thermomechanics (lecture room B), Dolejškova 5, 182 00 Prague 8**