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## Mechanik-Seminar / Graduiertenkolleg 1483

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Referent: **Prof. Samuel Forest**  
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Datum: Dienstag, 20.05.2014  
Uhrzeit: 09:45-11:15 Uhr  
Ort: Geb. 10.81, HS 62 (R 153)  
Titel: **Crack growth modelling in single crystals based on higher order continua**

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### Abstract

Single crystal components operating at elevated temperatures are subjected to severe thermomechanical loading conditions. The geometry and behaviour of these components are now very complex. A major issue is to develop models to predict crack initiation and crack growth in the presence of strong stress and temperature gradients. The strongly anisotropic elastoviscoplastic behaviour of the material which is a single crystal nickel base superalloy, must be taken into account. The corresponding model should be able to account for anisotropic crack growth and crack bifurcation in complex stress.

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Alle Interessenten sind herzlich eingeladen.  
Prof. Dr.-Ing. Thomas Böhlke