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## Seminar über Fragen der Mechanik

zu folgendem Vortrag wird herzlich eingeladen

Mittwoch, **12.02.2014, 14:15 Uhr**, Egerlandstr. 5, Raum 0.044

### On modeling of continuous bodies with singular sharp interfaces

PD Dr. Michael Wolff

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We consider a continuous body consisting of two parts separated by a sharp interface. Generally, this interface is singular, i.e. it is not fixed in the reference configuration. Moreover, the interface may be thermodynamically active. This model can describe a prototypical situation in case of phase transformation in steel, from austenite into bainite, taking carbon diffusion and precipitation in form of carbide into account. We will deal with model description both in material and spatial representation, balance relations in the bulk as well as at the interface. Finally, we will draw first thermodynamical restrictions caused by the Clausius-Duhem inequalities.

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