



## Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

**Dienstag, 04. Dezember 2018**

17 Uhr s.t., Geom H4

Prof. Dr. Knut Smoczyk  
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### *Deformations of Lagrangian submanifolds*

#### Abstract:

Lagrangian submanifolds are the most significant submanifolds in symplectic geometry. They play an important role in many concepts in Physics. Some famous conjectures are related to Lagrangian submanifolds, e.g. the weak and strong Arnol'd conjectures and the construction of the mirror manifold of a given Calabi-Yau manifold. One method to prove such conjectures would be to understand the Hamiltonian and Lagrangian deformations of an initial Lagrangian submanifold in detail. There are several ways to do this. If the ambient space carries a Kähler-Einstein metric, one can deform Lagrangian submanifolds by their mean curvature. I will summarize recent results for the Lagrangian mean curvature flow, in particular in the formation of singularities.

**Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.**