

10.02.2021

Einladung

**zu der am Mittwoch, den 17. Februar 2021,
um 10:15 Uhr per Onlinevortrag über Zoom stattfindenden**

Antrittsvorlesung

von Herrn Prof. Dr. André Schlichting

über das Thema

„Variational methods for evolution“

Kurzfassung: Variational approaches to evolution systems are relevant to several seemingly distant branches of mathematics and physical sciences, as well as, more recently, data science. The variational structure provides a unifying theme that creates connections and a powerful viewpoint to study a large family of problems. Classically, this includes studies of geometric aspects like metric structures in infinite-dimensional function spaces and the geometry of relevant energy landscapes. The connection with the theory of optimal transport provides new insights into metric spaces on the one hand. It offers new tools for the theory of partial differential equations, on the other hand.

This talk reviews several recent observations on new directions to geometric and variational descriptions of the evolution in kinetic systems (e.g., coagulation-fragmentation equations) and equations on discrete graphs. Besides, connections to stochastic analysis (particularly large-deviation principles) and statistical mechanics provide a rigorous relationship between microscopic, particle-based descriptions of the systems and their macroscopic structure.

gez. Xiaoyi Jiang, Dekan