数学与系统科学研究院

计算数学所网络学术报告

报告人：　Prof. Chun Liu

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报告题目：

Energetic Variational Approaches in Active Materials and Reactive Fluids

邀请人：　许现民 副研究员

报告时间：2021 年 3 月 20 日（周六）

上午 9:00-10:00

报告工具：Zoom 会议（ID：6627 9437 241）

入会密码：710089

会议链接：https://zoom.com.cn/j/66279437241

Abstract:

Active materials and reactive fluids consists of those materials that consume or convert energy to generate motion and deformations. They are involved in many biological activities and in most time, the principle characteristics of living organisms. In this talk, we will present a derivation and generalization of the mass action kinetics of chemical reactions using an energetic variational approach. The method enables us to capture the coupling and competition of various mechanisms, including mechanical effects such as diffusion, viscoelasticity, as well as the thermal effects. We will also discuss several applications under this approach, in particular, the modeling of wormlike micellar solutions. This is a joint work with Bob Eisenberg, Pei Liu, Yiwei Wang and Tengfei Zhang.

欢迎大家参加！