

数学与系统科学研究院

计算数学所学术报告

报告人: **Dr. Kaibo Hu**

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报告题目:

Finite elements for curvature

邀请人: 张硕 副研究员

报告时间: **2019 年 6 月 10 日 (周一)**

上午 11:00-12:00

报告地点: 科技综合楼三层

301 报告厅

Abstract:

We review the elasticity (linearized Calabi) complex, and its potential applications in continuum dislocation theory and differential geometry. We construct discrete finite element complexes. In particular, this leads to new finite element discretization for the Riemannian tensor and the linearized curvature operator. Compared with the classical discrete geometric approaches, e.g., the Regge calculus, the new elements are conforming. The construction is based on a Bernstein-Gelfand-Gelfand type diagram chase, or new Poincaré type path integral operators for the elasticity complex, which thus mimics the standard Nédélec and Raviart-Thomas elements for the de Rham complex. This is a joint work with Snorre H. Christiansen.

欢迎大家参加！