



复旦大学数学科学学院 数学综合报告会

报告题目: **Eigenvalue Preservation for the Beris-Edwards System Modeling Liquid Crystal Flows**

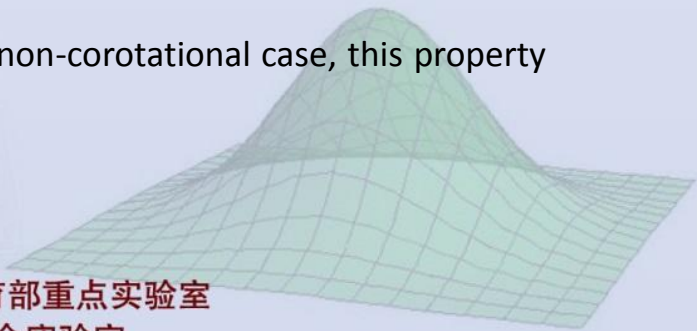
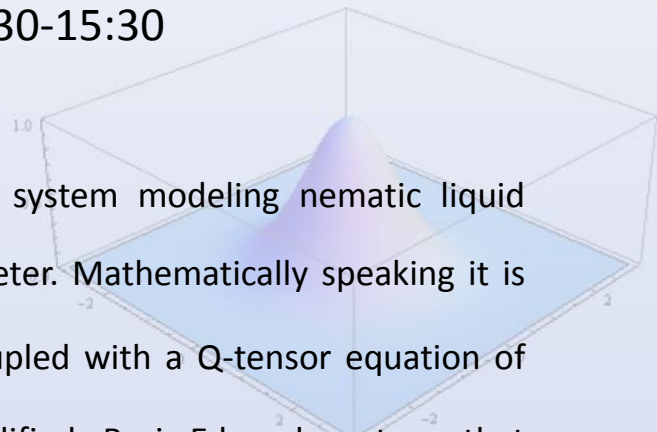
报告人: Prof. Xiang Xu

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报告时间: 2017-05-17 星期三 14:30-15:30

报告地点: 光华东主楼 1704

摘要: The Beris-Edward is a hydrodynamic system modeling nematic liquid crystals in the setting of Q-tensor order parameter. Mathematically speaking it is the incompressible Navier-Stokes equations coupled with a Q-tensor equation of parabolic type. We first consider the simplified Beris-Edward system that corresponds to the corotational case, and study the eigenvalue preservation property for the initial Q-tensor order parameter in 3D. We work in both the whole space and bounded domain cases, and provide two different proofs. Then we show that for the general system that relates to the non-corotational case, this property is not valid.



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