



复旦大学数学科学学院 数学综合报告会

报告题目: Blowup rate estimates of a singular potential near its physical boundary in the Landau-de Gennes theory

报告人: 徐翔 (Old Dominion University)

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摘要: The Landau-de Gennes theory is a type of continuum theory that describes nematic liquid crystal configurations in the framework of the Q-tensor order parameter. In its free energy, there is a singular bulk potential which is considered as a natural enforcement of a physical constraint on the eigenvalues of symmetric, traceless Q-tensors. In this talk we shall discuss several blowup rate estimates of this singular potential and its gradient near the physical boundary of Q.

非线性数学模型与方法教育部重点实验室
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