

数学与系统科学研究院

计算数学所学术报告

报告人: **Associate Prof. Jinhae Park**

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报告题目:

**Landau-de Gennes Theory of
Nematic Liquid Crystals with line
defects**

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报告时间: **2013 年 7 月 23 日 (周二)**

下午 15:00-16:00

报告地点: **科技综合楼三层 301**

计算数学所小报告厅

Abstract:

We investigate the structure of nematic liquid crystal thin films described by the Landau--de Gennes tensor-valued order parameter with Dirichlet boundary conditions of nonzero degree. We prove that as the elasticity constant goes to zero a limiting uniaxial texture forms with disclination lines corresponding to a finite number of defects, all of degree $1/2$ or all of degree $-1/2$. We also state a result on the limiting behavior of minimizers of the Chern-Simons-Higgs model without magnetic field that follows from a similar proof.

欢迎大家参加!