



## 复旦大学数学科学学院 数学综合报告会

报告题目: Cahn-Hilliard Equation(s): Separation Property or Not?

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报告地点: 光华东主楼 1704

报告摘要: The Cahn-Hilliard equation is a celebrated diffuse interface (phase field) model proposed in material sciences to describe phase separation in binary alloys. It is nowadays widely used in fluid mechanics, biology and image processing. The Cahn-Hilliard equation corresponds to the gradient flow associated with the Ginzburg-Landau free energy with Flory-Huggins potential subject to the mass conservation constraint. Although the global well-posedness is by now well-known, some questions concerning the regularity of the solutions and the so-called separation property remain unsolved. In this talk, I will discuss some open problems and partial answers for local and nonlocal Cahn-Hilliard equations.

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