

数学与系统科学研究院
计算数学所网络学术报告

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报告题目:

**Direct discretization method for
phase field model on surfaces**

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下午 14:00-15:00

报告工具: 腾讯会议 (ID: 938-164-182)

Abstract:

In this talk, we will introduce simple and efficient direct discretization schemes for solving the phase field model on a fix and evolving surfaces. By using a conservation law and transport formulae, we derive the phase field model on evolving surfaces. An evolving surface is discretized using an unstructured triangular mesh. The discrete phase field model is defined on the surface mesh and its dual surface polygonal tessellation. The evolving triangular surfaces are then realized by moving the surface nodes according to a given velocity field. The proposed scheme is based on the Crank–Nicolson scheme and a linearly stabilized splitting scheme. The scheme is second order accurate, with respect to both space and time. Several numerical experiments are presented to demonstrate the performance and effectiveness of the proposed numerical scheme.

欢迎大家参加！