

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

Analysis Seminar

Global strong solution with latent singularity to thin film equations in epitaxial growth

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Abstract

We consider a class of step flow models from macroscopic view which are all 4th order degenerate parabolic equations. Using the regularized method we can obtain a global weak solution to the slope equation. However, in order to study the global strong solution with latent singularity, which occurs whenever the solution approaches zero, we formulate the problem as the gradient flow of a suitably-defined convex functional in a non-reflexive Banach space and establish a framework to handle a class of degenerate parabolic equations described by maximal monotone operators in non-reflexive space.

Date: November 17, 2017 (Friday)

Time: 4:00 - 5:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU

All are welcome