THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PDE

Blowup classification for the three-dimensional energy-critical nonlinear heat equation

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<u>Abstract</u>

Advanced mathematical techniques have been developed in the last two decades for rigorous constructions of blowup solutions within the class of finite energy. However, the question of a complete classification of blowup dynamics remains open. In this talk, we consider the energy-critical nonlinear heat equation in R^3 as a model example to illustrate our technique to archive such a blowup classification. It consists of two parts: 1) a review of different techniques for constructing finite-energy blowup solutions, and 2) a rigidity result of the finite-energy blowup.

Date: 6 September 2024 (Friday)

Time: 9:30am

Zoom Meeting: https://hkust.zoom.us/j/93773469392 (Passcode: 977902)

All are Welcome!