THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PURE MATHEMATICS

Vacuum asymptotically flat initial data at minimal and borderline decay via conical solution operators

by

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Abstract

We present a streamlined construction of vacuum asymptotically flat initial data at minimal and borderline decay thresholds using the conical solution-operator method of Mao-Tao. This method provides explicit right inverses for divergence-type operators and allows for the construction of initial data at sharp decay rates, aligning with the global and exterior stability results for Minkowski spacetime with minimal and borderline decay, as proved by Dawei Shen. This work is joint with Dawei Shen.
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Date   : **25 February 2026 (Wednesday)**
Time   : **4:00p.m.-5:00p.m.**
Venue : **Room 4472 (Lift 25/26)**

All are Welcome!