



THE HONGKONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PDE

Non-smoothness of solutions to the σ_k -Loewner–Nirenberg problem in domains with nontrivial topology

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Abstract

I will talk about a joint work with Yanyan Li and Luc Nguyen about the regularity of viscosity solutions to the σ_k -Loewner–Nirenberg problem in bounded domains, $k \geq 2$. When the domains' boundaries have more than one connected component, we show that viscosity solutions are not C^1 . However, the Lipschitz regularity was known. On the other hand, we establish smoothness of the viscosity solutions near the boundaries.

Date: 7 February 2024 (Wednesday)

Time: 3:00pm – 4:00pm

Venue: Room 3472 (Lifts 25/26)

All are Welcome!