

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## PDE Seminar

# On the stability of multi-dimensional rarefaction waves

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Date:	November 1, 2023 (Wednesday)
Time:	2:00 – 3:00pm
Venue:	Room 309, Run Run Shaw Bldg., HKU

### Abstract

In his pioneering work in 1860, Riemann proposed the Riemann problem and solved it for isentropic gas in terms of shocks and rarefaction waves. It eventually became the foundation of the theory of one-dimension conservation laws developed in the 20th century. We prove the non-nonlinear structural stability of the Riemann problem for multi-dimensional isentropic Euler equations in the regime of rarefaction waves. This is a joint work with Tian-Wen Luo.

*All are welcome*