

MATH-IMS Joint Pure Mathematics Colloquium Series The Chinese University of Hong Kong

This Colloquium Series in Pure Mathematics is organized by the Department of Mathematics and the Institute of Mathematical Sciences (IMS) at The Chinese University of Hong Kong. The series focuses on all areas of pure mathematics together with theoretical developments and applications.

Date: April 21, 2023 (Friday)

Time: 9:30AM-10:30AM (Hong Kong Time)

Zoom Link: <https://cuhk.zoom.us/j/98846779826>

Dynamics of Newtonian stars

*Speaker: Professor Juhi Jang
University of Southern California*

Abstract: A classical model to describe the dynamics of Newtonian stars is the gravitational Euler-Poisson system. The Euler-Poisson system admits a wide range of star solutions that are in equilibrium or expand for all time or collapse in a finite time or rotate. In this talk, I will discuss some recent progress on those star solutions with focus on expansion and collapse. If time permits, I will also discuss the non-radial stability of expanding Goldreich-Weber star solutions.

Bio: Professor Jang received her PhD degree in 2007 from Brown University, and she is currently a Professor of Mathematics at the University of Southern California. Her research focuses on the analysis of partial differential equations arising in physics, including fluids and kinetic theory. She was a recipient of the NSF CAREER Award in 2014.