

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## **Analysis Seminar**

# **On the relativistic Boltzmann equation without angular cutoff**

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### **Abstract**

In this lecture, we will establish global-in-time well-posedness and stability results for solutions nearby the relativistic Maxwellian to the special relativistic Boltzmann equation without angular cutoff. We will start with introducing a general Newtonian Boltzmann theory. We assume the generic hard- and soft-potential conditions on the collision kernel in that were derived by Dudynski and Ekiel-Jezewska (Comm. Math. Phys. 115(4):607--629, 1985). In this physical situation, the angular function in the collision kernel is not locally integrable, and the collision operator behaves like a non-isotropic fractional diffusion operator.

Date: April 4, 2018 (Wednesday)

Time: 3:00 - 4:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU

*All are welcome*