

# Mathematics Department Colloquium

Organizer: Maciej Zworski

Thursday, 4:10–5:00pm, Evans 60

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May 4      **Shih-Hsien Yu**, City University of Hong Kong

*Green's function for Boltzmann equation and its Applications*

In this talk we will survey the recent mathematical theories for Boltzmann equation, in particular, the Green's functions for Boltzmann equation. There are several highlights in this talk: macro-micro decomposition, positive solution of the Boltzmann shock layer, hydrodynamic limit problem, Boltzmann boundary layer, particle-wave decomposition, mixture lemma, and the Green's functions for both initial value problem and initial-boundary value problems.