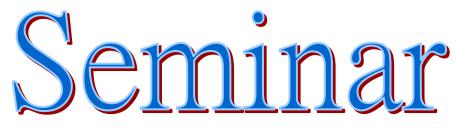


Department of Mathematics The Chinese University of Hong Kong

數學系 香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: <u>dept@math.cuhk.edu.hk</u> (Math. Dept.) Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong



## Problem of evaporation-condensation for a two component gas in a bounded domain

## **Prof. Stéphane Brull** Université de Bordeaux

## <u>Abstract</u>

Consider a two component gas situated between two infinite parallel planes. One component can condense whereas the other one is non condensable. The physical model is described by the Boltzmann equation for a two component gas close to an equilibrium state. The two distribution functions satisfy different boundary conditions. The distribution function associated to the condensable gas satisfies a given indatta profile whereas the other one satisfies Maxwell boundary conditions. The problem is solved by using a Hilbert expansion of the solution plus a rest term. The terms of the expansion are modified by adding Knudsen terms in order to satisfy the boundary conditions.

Next the rest term is rigorously controlled by using a decomposition between a low and a high velocity part.

Date: 26 August 2019 (Monday)
Time: 10:00am – 11:30am
Venue: Room 222, Lady Shaw Building, The Chinese University of Hong Kong, Shatin

## All are Welcome