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Seminar

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

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Abstract

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