



Analysis Seminar

A Poisson-Nernst-Planck Model with Singular Permanent Charges

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Abstract

The Poisson-Nernst-Planck (PNP) system is widely used to model charge transport in many physical and biological problems, for example, semiconductors and ion channels. In this talk, we will introduce a PNP system with singular permanent charges. When the permanent charge distribution is an ensemble of point charges in the domain, we transform the original system into a parabolic-elliptic system with weights. We will show the well-posedness of the system in some weighted Sobolev spaces.

Date: March 28, 2018 (Wednesday)

Time: 4:30 - 5:30pm

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