

中央研究院數學研究所

Institute of Mathematics, Academia Sinica

Taipei Postdoc Seminar

Speaker : 謝佳佑 Chia-Yu Hsieh (National Center for Theoretical Sciences)

Title : **A Poisson-Nernst-Planck Model with Singular Permanent Charges**

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.

Time : 11:00 - 12:30, Wednesday, May 30, 2018

Venue : Room 202, Astro-Math. Buidling (NTU Campus)

Organizer : Jyun-Ao Lin (Academia Sinica), Yang-Kai Lue (NCTS)

Refreshment : 10:30

http://www.math.sinica.edu.tw/www/file_upload/conference/2016TPS/index.html

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