

中央研究院數學研究所

Institute of Mathematics, Academia Sinica

Taipei Postdoc Seminar

Speaker : Junsik Bae (National Center for Theoretical Sciences)

Title : Solitary waves of the Euler-Poisson system

Abstract :

The Euler-Poisson (EP) system is a fluid model which describes the dynamics of ions in electrostatic plasmas. We first introduce our result that the EP solitary waves converge to the KdV solitary waves as the small amplitude parameter tends to zero. We also study the asymptotic linear stability of small amplitude solitary waves of the EP system. In order to study the eigenvalue problem, we construct the Evans function. It is an analytic function of the spectral parameter, and its zeros correspond to eigenvalues. Moreover, the order of the zeros correspond to the algebraic multiplicity of the eigenvalues. These are joint works with B. Kwon.

Time : 11:00 - 12:30, Wednesday, October 23, 2019

Venue : Room 638, Astro-Math. Buidling (NTU Campus)

Organizer : Sheng-Fu Chiu (Academia Sinica), Jia-Yuan Dai (National Center for Theoretical Sciences)

Refreshment : 10:30

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

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