

中央研究院數學研究所

Institute of Mathematics, Academia Sinica

Taipei Postdoc Seminar

Speaker : Haewon Yoon (National Center for Theoretical Sciences)

Title : **Global existence versus finite time blowup dichotomy for the system of nonlinear Schrödinger equations**

Abstract :

In this talk, we construct an extremizer for the Lieb-Thirring energy inequality using concentration-compactness principle. Moreover, we investigate the properties of the extremizer, such as the system of Euler-Lagrange equations, regularity and summability. As an application, we study a dynamical consequence of a system of nonlinear Schrödinger equations with focusing cubic nonlinearities in three dimension when each wave function is restricted to be orthogonal. Using the critical element of the Lieb-Thirring inequality, we establish a global existence versus finite time blowup dichotomy. This is the joint work with Younghun Hong (Chung-Ang Univ.) and Soonsik Kwon (KAIST).

Time : 11:00 - 12:30, Wednesday, June 17, 2020

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

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

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

◆Lunch Box Sign Up and Registration: <https://reurl.cc/e5jjX7>

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