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Seminar

A sharp Schrodinger Maximal estimate in R^2

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Abstract

How smooth is the initial data of the free Schrodinger equation so that the solution will converge to the initial data pointwisely a.e.? This question originates from Carleson, who fully solved the case when the initial data is given on R^1. In this seminar, we discuss a recent result in R^2 due to Xiumin Du, Larry Guth, and Xiaochun Li, which is sharp up to the endpoint due to the recent counterexample of Jean Bourgain. The main ingredients include polynomial partitioning, wave packet decomposition and l^2 decoupling theorem. Very recently, in a paper of Xiumin Du and Ruixiang Zhang, the problem has been fully solved (up to the endpoint) in higher dimensions.

Date: 3 August 2018 (Friday)
Time: 10:00am – 12:00noon
Venue: Room 222, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin

All are Welcome