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Seminar

Discrete analogues in harmonic analysis and variation-norm estimates

Professor Joris ROOS
University of Wisconsin, Madison

Abstract

In this talk we consider discrete analogues of continuous operators in harmonic analysis that feature a certain nonlinearity, such as Radon transforms along curves in the plane. These objects exhibit decidedly distinct behaviour from their continuous counterparts in that they require an analysis of number-theoretic flavor that is very much in the spirit of the Hardy-Littlewood circle method. In recent years there has been some important progress in the study of such operators. One key ingredient is the use of variation-norm estimates for the associated continuous operators. This goes back to a classical argument of Bourgain.

Date: 11 July 2018 (Wednesday)
Time: 2:30pm – 3:30pm
Venue: Room 219, Lady Shaw Building,
        The Chinese University of Hong Kong, Shatin

All are Welcome