universität wien

Fakultät für Mathematik

Mathematisches Kolloquium

Mittwoch, 29. Jänner 2025
Sky Lounge

EINLADUNG

Danylo Radchenko
(University of Lille)

„Fourier uniqueness pairs, interpolation, and extremal problems"

Abstract:
A Fourier uniqueness pair is a pair of subsets A, B of Euclidean space such that any sufficiently nice function can be recovered from its restriction to A and restriction of its Fourier transform to B. Although this notion is related to several classical results in harmonic analysis, the first constructions of uniqueness pairs with both A and B discrete closed sets were obtained only recently, and these constructions played a crucial role in the sphere packing and energy minimization problems in 8 and 24 dimensions. I will talk about some recent progress on Fourier uniqueness pairs, including both analytic and number-theoretic constructions. If time permits I will also discuss conjectural applications to sphere packing and energy minimization problems in dimensions other than 8 and 24.

14.45 Uhr: Kaffeejause

15.15 Uhr: Vortrag

vinum cum pane im Anschluss

Anton Mellit
José Luis Romero
Radu Ioan Bot