Analysis Seminar

Title: Some extremal problems in Hardy spaces

Speaker: Myrto Manolaki

Date: Tue 31st March 2026 at 3:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: Optimal polynomial approximants are polynomials which heuristically approximate the reciprocal of an element in a given function space. They were first introduced in the 60s as a tool to address certain problems in signal processing and digital filter construction. Fifty years later, a renewed interest in the subject arose due to interesting connections to function theory, reproducing kernels and orthogonal polynomials. In this talk, we will focus on the study of optimal polynomial approximants in the Banach setting of the Hardy space H^p, where the theory is less well developed. In particular, we will discuss the behaviour of their zeros and see connections with some related extremal problems.

(Joint work with C. Beneteau, R. Cheng, C. Felder, D. Khavinson and K. Maronikolakis.)

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