



Analysis Seminar

Title: Universal radial approximation in spaces of analytic functions

Speaker: K. Maronikolakis

Date: Tue 5th April 2022 at 3:00PM

Location: Seminar Room SCN 1.25

Abstract: Charpentier showed that there exist holomorphic functions f in the unit disk such that, for any proper compact subset K of the unit circle and any continuous function h on K , there exists an increasing sequence $(r_n) \in [0, 1)$ converging to 1 such that $|f(r_n \zeta) - h(\zeta)|$ converges to 0 as n goes to infinity uniformly for $\zeta \in K$. In this talk, I will present analogues of this result for classical Banach spaces of analytic functions. In particular, for the case of the Hardy space H^p , we have the following: if we fix a compact subset K of the unit circle with zero arc length measure, then there exist functions in H^p whose radial limits can approximate every continuous function on K . I will also make connections with other classes of universal functions.

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