Analysis Seminar

Title: Boundary points of angular type form a set of zero harmonic measure

Speaker: S. Gardiner

Date: Tue 11th October 2022 at 3:00PM

Location: Seminar Room SCN 1.25

Abstract: A boundary point w of a planar domain W is called 'angular' if there exists $r > 0$ such that each component of the set $\{z \in W : |z - w| < r\}$ which has w as a boundary point is contained in an angle of vertex w and aperture less than π. This talk will provide answers to the following problems that were submitted by Dvoretzky in 1974 to Hayman's collection of 'Research problems in function theory': 1) Prove, by non-probabilistic methods, that the set of angular boundary points of a planar domain has zero harmonic measure. 2) Does the same conclusion hold when angles less than π are replaced by more general approach regions? 3) Is there a corresponding result in higher dimensions?

(Joint work with Tomas Sjodin)

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