



Analysis Seminar

Title: Holomorphic dynamics on bounded symmetric domains

Speaker: P. Mellon

Date: Tue 20th March 2018 at 4:00PM

Location: SCN 125

Abstract: The open unit ball, B , of a Banach space is homogeneous if given any two points z, w in B , there is a biholomorphic map sending z to w . Such balls classify the bounded symmetric domains, include many classical spaces and ensure a Jordan structure on the underlying space. Let $f : B \mapsto B$ be a holomorphic fixed-point free map. The behaviour of the sequence of iterates, $f^n = f \circ f^{n-1}$, of f is the subject of much study since the Wolff Denjoy results for the complex disc Δ in 1926. Generally, in infinite dimensions, (f^n) does not converge, even in the Hilbertspace case. Our work therefore seeks to establish the 'location' of accumulations points of (f^n) , with respect to the topology of local uniform convergence on B . This seminar will present results in this direction, using a recently proved Wolff type theorem for infinite dimensional bounded symmetric domains.