



## 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  $\Delta$  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.