



## Analysis Seminar

**Title:** Iteration of holomorphic maps on complex Banach spaces

**Speaker:** Pauline Mellon

**Date:** Tue 30th January 2024 at 3:00PM

**Location:** E0.32 (beside Pi restaurant)

**Abstract:** Let  $Z$  be a complex Banach space with open unit ball  $B$  and let  $f : B \rightarrow B$  be holomorphic. We are interested in the behaviour of  $(f^n)_n$ , the sequence of iterates of  $f$ , where  $f^n = f \circ f^{(n-1)}$ ,  $n \geq 2$  and  $f^1 = f$ .

This problem has been studied now for a century, from approximately 1917 onwards, since seminal works in the complex plane by Julia, Fatou, Denjoy, Wolff and others. This seminar aims to present the historical development of the topic over the past 100 years, outlining, in particular, developments over the last two decades and culminating in recent results of Mackey and Mellon.

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