



## Analysis Seminar

**Title:** On typical boundary behaviours of holomorphic functions

**Speaker:** Stéphane Charpentier (Aix-Marseille University)

**Date:** Tue 30th May 2023 at 3:00PM

**Location:** Seminar Room SCN 1.25

**Abstract:** We will discuss some results confirming that a typical holomorphic function of one or several complex variables enjoys chaotic behaviours at the boundary of its domain. We will mainly focus on the case of several complex variables. For instance, a construction will be presented of a function  $f$  holomorphic on such domain  $D$  such that, given any continuous path  $p$  in  $D$  terminating at a point of the boundary of  $D$ , with finite length, the image by  $f$  of  $p$  is dense in  $\mathbb{C}$ . It is initially inspired by a construction of Globevnik of a function with a specific boundary behaviour, that allowed him to solve a question from complex geometry. The main ingredient is the notion of labyrinth. (Joint work with Lukasz Kosinski)

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