



## Analysis Seminar

**Title:** Minimization problems for the Bombieri–Fischer norm

**Speaker:** H. Render

**Date:** Tue 9th May 2023 at 3:00PM

**Location:** Seminar Room SCN 1.25

**Abstract:** The Bombieri inequality provides a lower estimate of the Bombieri norm of a product of two homogeneous polynomials  $P_k$  and  $q_m$  of degree  $k$  and  $m$  respectively. In this talk we shall provide necessary and sufficient criteria for a given homogeneous polynomial  $P_k$  such that an improved Bombieri-type inequality holds for all homogeneous polynomials  $q_m$  of degree  $m$  leading to a description of the asymptotic behavior when the degree  $m$  is large. These results are useful in the context of the Fischer decomposition of an entire function of finite order.

This is joint work with J.M. Aldaz (Universidad Autonoma de Madrid).

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