



Analysis Seminar

Title: Existence and boundary behaviour of solutions for weighted elliptic systems

Speaker: Gurpreet Singh (TU Dublin)

Date: Tue 22nd April 2025 at 2:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: In this research paper, we are concerned with the existence and boundary behaviour of positive radial solutions for the weighted elliptic systems. Firstly, we study the existence of positive radial solutions in case when the system is posed in a ball corresponding to their behaviour at the boundary. Next, by the use of dynamical system techniques we are able to describe the behaviour at infinity of such positive radial solutions. These types of problems appear in the study of the dynamics of viscous, heat-conducting fluids.(Joint work with Daniel Devine.)

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