

DEPARTMENT OF MATHEMATICS
UNIVERSITY OF DELHI

Research Seminar
by
Bharat Talwar
Research Assistant, Nazarbayev University, Kazakhstan

Title: Some research ideas in PDE's and operator theory
Date and Time : Thursday, January 12, 2023, 2:30 p.m.
Venue: Seminar Room

Abstract: We will learn about some ideas being explored actively by researchers working in the two fields: partial differential equations and operator theory. For a class of PDEs, research is being carried out actively for finding a critical constant famously known as the Fujita exponent. For operator theory, we will try to answer a recent conjecture by Fidaleo et al. [1] claiming that a unital completely positive map on a C^* -algebra (e.g., M_d) having spectrum inside the unit circle \mathbb{T} must be an automorphism. This talk is based on joint works with Durvudkhan Suragan; and B. V. Rajarama Bhat and Samir Kar.

REFERENCES

- [1] F. Fidaleo, F. Ottomano and S. Rossi, Spectral and ergodic properties of completely positive maps and decoherence, *Linear Algebra Appl.* **633** (2022), 104–126.

Head