

Department of Mathematics
University of Delhi

South Campus Colloquium Lectures in Mathematics

You are cordially invited to a lecture

by

Dr. J.E. Pascoe

Drexel University, Philadelphia, USA

On

”The kernel embedding trick and Herglotz duality”

At 3:00 PM

Tuesday, 09 September 2025

in

Seminar Room No. 117, Arts Faculty,
University of Delhi South Campus

Abstract: Reproducing kernel Hilbert spaces (RKHS) arise in various contexts such as complex analysis, statistics, machine learning and portfolio theory. In the present, the ability to embed probability distributions into RKHS has been very fruitful theoretically and computationally. The Hahn-Banach theorem gives that the cone functions with positive real part in a reproducing kernel Hilbert is in some sense dual to the cone of embedded measures, which we call Herglotz duality. In complex analytic contexts, functions with positive real part are often highly rigid, and, thus, through such duality, one gains significant information about the cone of embedded measures. In this talk, we will go over the basic definitions, examples and applications.

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