

## **Maya Saran**

Title: Sigma-ideals of compact sets: a conjecture

Abstract: The descriptive-set-theoretic study of ideals and sigma-ideals of compact sets is well established. Such sigma-ideals typically arise out of various notions of smallness: given a compact metric space,  $E$ , collection of compact "small" sets ends up being an ideal. It turns out that there is a close interplay between the closure properties of the ideal and the complexity of the ideal when considered as a subset of  $K(E)$ , the hyperspace of compact subsets of  $E$ , which is itself compact metric. In this talk I will talk about a conjecture regarding these sigma-ideals and present a result that partially proves it.