

---

**SURESH ESWARATHASAN**, Dalhousie University

*Fractal uncertainty principle for discrete Cantor sets for random alphabets*

The fractal uncertainty principle (FUP) introduced by Dyatlov-Zahl '16 has seen some powerful applications in the last few years and become a hot topic in harmonic analysis. In this talk, we study the FUP for discrete Cantor sets from a probabilistic perspective. We show that randomizing our alphabets gives a quantifiable improvement over the current “zero” and “pressure” bounds. In turn, this provides the best possible exponent when the Cantor sets enjoy either the strongest Fourier decay or additive energy assumptions. This is joint work with Xiaolong Han (Cal. State Northridge)