

abstract

MATHEMATICAL PHYSICS

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

In this talk we introduce a new class of random fractals which we call conformal snowflakes. We study fine structure of harmonic measure on these snowflakes. It turns out that in this case the multifractal spectrum of harmonic measure is related to the main eigenvalue of a particular operator. Using this connection we can show that even a very simple snowflake can have a large multifractal spectrum. In particular we show an example of a snowflake with $\beta(1) > 0.23$ which is relatively close to the conjectured maximum $1/4$ and is significant improvement over previously known $\beta > 0.17$.