SEMINARIO IMAC DE ANÁLISIS

Conferencia a cargo de

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Local dimensions of convolutions of measures

ABSTRACT: A measure on R that is concentrated on a set of Lebesgue measure zero is called singular. For such measures it is of interest to quantify their degree of singularity, and one way to do this is to compute their local dimensions. For many interesting classes of singular measures, including self-similar measures and Cantor-like measures that satisfy a suitable separation condition, it has long been known that the set of attainable values for the local dimensions is a closed interval. More recently, it was discovered that this is not true for the 3-fold convolution of the classical Cantor measure. In fact, we will see that under modest assumptions, convolutions of continuous, singular measures always have an isolated point in their set of local dimensions.

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Lugar: IMAC **(***Seminario TI1329SD),* ESTCE. Universitat Jaume I de Castelló