Instituto Universitario de Investigación de Matemáticas y Aplicaciones Universidad Zaragoza

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Seminario de Doctorandos Rubio de Francia

Conferencia

por

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Universidad Nacional de Educación a Distancia

Título:

Ranks in Banach Space Theory

Resumen:

Ordinal ranks (or indices) measure the complexity of certain subsets of a Banach space by way of assigning to them an ordinal number. In this talk we introduce a few classical examples of such ranks and some applications to Functional Analysis. Moreover, we show how the study of these ranks can be approached through the framework of Descriptive Set Theory and, in particular, we introduce Π^1_1-ranks and their useful properties. Finally we turn our attention to Ramsey Theory and the families of finite subsets of $\mathbb{N}$. These techniques can be used to study sequences in Banach spaces and they allow us, through different notions of complexity, to define several ranks on separable weakly compact sets like the Banach-Saks rank.

Fecha: Martes, 30 de abril de 2024.
Hora: 17:00 horas.
Lugar: Seminario Rubio de Francia. Primera planta, Edificio B, Facultad de Ciencias.