

Thursday, May 2nd, 12:00-13:00

Seminar Room at the Mathematics Department of UPV/EHU

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HARMONIC ANALYSIS, UNIFORM RECTIFIABILITY AND APPROXIMABILITY PROPERTIES OF HARMONIC FUNCTIONS

The study of uniform rectifiability started as a hunt for optimal geometric conditions for various aspects of Calderón-Zygmund type harmonic analysis. More recently, the emphasis of the field has been on exploring the connections between partial differential equations and boundary geometry. In this talk, we discuss the origins of and some recent trends in uniform rectifiability, related topics and Varopoulos type approximability properties of harmonic functions. These properties help us to overcome some problems related failure of certain types of Carleson measure estimates. The talk is partially based on my previous and on-going work with S. Hofmann and S. Bortz.