



DEPARTAMENTO
DE ANÁLISIS
MATEMÁTICO Y
MATEMÁTICA
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SEMINARIO DE ANÁLISIS MATEMÁTICO Y MATEMÁTICA APLICADA

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Continuous nowhere Hölder functions on the p -adic field

Abstract: K. Weierstrass (1872) was probably the first to present the existence of continuous nowhere differentiable functions. Almost a century later, V. Gurariy (1966) observed that the family of continuous functions on $[0,1]$ that are differentiable at no point contains, except for the null function, an infinite dimensional vector space. Among other recent contributions in this direction, S. Hencl (2000) generalized the previously mentioned result by proving the existence of isometrical embeddings of separable Banach spaces into the set of nowhere approximatively differentiable and nowhere Hölder functions. In this talk, we continue this ongoing research with the study of continuous nowhere Hölder functions, no longer defined in subsets of real numbers, but in subsets of the p -adic field.

**Organizado por el Departamento de Análisis Matemático y Matemática Aplicada y el
Instituto de Matemática Interdisciplinar (IMI)**

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**Lugar: Aula Alberto Dou
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