



Colloquium del Departamento de Análisis Matemático

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“Analysis of real functions on Boolean cubes”

Jueves 15 de junio de 2017
a las 13:00 horas en el seminario 222

Abstract:

Functions of the type $f : \{-1,1\}^n \rightarrow \mathbb{R}$ arise in a wide variety of fields: theoretical computer sciences, social theory, combinatorics, random graph theory, etc. The systematic study of these functions is carried out through their Fourier-Walsh expansion, a canonical representation which let us combine tools from Fourier analysis, polynomials and multilinear forms.

In this talk, we will explain some basics on the subject and discuss some recent results concerning the Fourier spectrum of functions of degree d obtained in a joint work with A. Defant (Carl von Ossietzky University in Oldenburg, Germany) and M. Mastylo (Adam Mickiewicz University in Poznan, Poland).

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