

# SEMINARIO IMAC DE ANÁLISIS



## Conferencia a cargo de Francisco Villarroya

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### *T(1) Compact Theory*

**RESUMEN:** We prove a  $T(1)$ -type theorem which characterizes compactness of singular integral operators whose kernels satisfy a smoothness condition with decay along the diagonal. In the same spirit of David and Journe's original  $T(1)$  Theorem, we provide this characterization in terms of the action of the operator over special families of functions. For this reason, we define a new property of 'weak compactness' and a proper substitute for the space  $BMO$ . We apply our main theorem to prove compactness of some particular perturbations of the Cauchy Integral.

**Fecha:** 13 de septiembre de 2012, a las 11:00 horas

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