



# Colloquium del Departamento de Análisis Matemático

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**“Weakly compact sets in  $C[0,1]$  and reflexive  
Banach lattices”**

**Jueves 12 de mayo de 2016**  
a las 13:00 horas en el seminario 222

**Abstract:**

Motivated by the results in [M. Talagrand, Proc. Amer. Math. Soc. 96 (1986), no. 1, 95--102], we will see that for every weakly compact subset  $K$  of  $C[0,1]$  with finite Cantor-Bendixson rank, there is a reflexive Banach lattice  $E$  and an operator  $T: E \rightarrow C[0,1]$  such that  $K \subseteq T(B_E)$ . On the other hand, we exhibit an example of a weakly compact set in  $C[0,1]$  homeomorphic to  $\omega^\omega$  for which such  $T$  and  $E$  cannot exist.

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