



DEPARTAMENTO  
DE ANÁLISIS  
MATEMÁTICO Y  
MATEMÁTICA  
APLICADA



Instituto de  
Matemática  
Interdisciplinar

# COLLOQUIUM DE ANÁLISIS MATEMÁTICO

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### Norming subspaces of Banach spaces

*We show that, if  $X$  is a closed subspace of a Banach space  $E$  and  $Z$  is a closed subspace of  $E^*$  such that  $Z$  is norming for  $X$  and  $X$  is total over  $Z$  (as well as  $X$  is norming for  $Z$  and  $Z$  is total over  $X$ ), then  $X$  and the pre-annihilator of  $Z$  are complemented in  $E$  whenever  $Z$  is weakly star closed or  $X$  is reflexive. This talk is based on joint works with S. Lajara, S. Troyanski and C. Zanco..*

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

**Fecha: Jueves 21 de junio de 2018**

**Hora: 13:00 horas**

**Lugar: Aula 222**

**Facultad de CC Matemáticas, UCM**