

# SEMINARIO DE ANÁLISIS Y APLICACIONES

Viernes 13 de enero,

10:30 h., Módulo 17 - Aula 520 (Depto. Matemáticas UAM)

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A solution to a question of Pietsch on operator ideals

## Resumen:

After a short introduction on operator ideals in Banach spaces in the sense of Pietsch, we shall consider proper ideals of operators, i.e. those which contain the identity  $\text{Id}_X$  for no infinite dimensional  $X$ . A classical example of proper ideal is the ideal of compact operators. Then we shall give a negative answer to one of the questions of Pietsch (1979), proving that there is no largest ideal in the class of proper ideals. The proof is based on a study of operators on Gowers-Maurey exotic spaces (1997) - but no knowledge on the construction of these spaces will be required. Time allowing, the use of basic K-theory will be mentioned.

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