



Colloquium del Departamento de Análisis Matemático

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**“An exact structure for a category of sheaves
of operator modules”**

Viernes 23 de junio de 2017
a las 13:00 horas en el seminario 222

Abstract:

Usually, Homological Algebra is carried out in abelian categories since these resemble closely module categories. This setting allows to develop sheaf cohomology, for example, in Algebraic Geometry following Grothendieck's invention of schemes. Most analytic categories, however, fail to be abelian. In ongoing work with Pere Ara (Barcelona) we aim to develop a full sheaf cohomology theory for C^* -algebras and to this end, we introduced a certain exact structure for categories of sheaves of operator modules over sheaves of C^* -algebras. Exact structures, in the sense of Quillen, can be used to mimic Homological Algebra techniques in the more general setting and have proven useful in other functional analytic situations already.

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