



Departamento de Análisis Matemático

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Conferencia

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"On some "almost preserver" problems
(work in progress)"

ABSTRACT: The main question of "the preserver problem" is to describe some properties of maps preserving certain relations. Often these relations are algebraic - such as zero product between elements of a Banach algebra. In this talk, we consider maps between von Neumann algebras and their modules which "almost preserve" certain properties. We especially focus on two settings of the "almost preserver" problem:

- (1) Almost (right) annihilator preservers. These are maps T between A -modules X and Y so that $p[Tx]$ has small norm whenever $px=0$ (p is a projection in A).
- (2) Almost module maps: T is an almost module map on an A -module X if $T(axb) - a[Tx]b$ is "small", for any x in X and a, b in A .

We prove that, under suitable conditions, maps belonging to these classes are continuous, and can be approximated by annihilator preservers and module maps respectively.

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LUGAR: Seminario del Departamento de Análisis Matemático

HORA: 12:00