

**Sessão: Operator Algebras and Applications
Dedicated to Professor Maria Amélia Bastos**

Sufficient families of representations

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Representations of a C^* -algebra are often a useful way of studying its properties. We consider here families of $*$ -representations that are large enough to characterize invertibility of an element. We will see known results and criteria for this property to hold. An important application is to C^* -dynamical systems and their associated crossed product algebras, where we shall discuss the so-called local trajectory methods. We will see also how this property can be used to give Fredholm conditions on spaces with boundary, using groupoid C^* -algebras.

(This is partly ongoing work with Prof. Amélia Bastos.)