# Sheaves and cohomology for C*-algebras I

Pere Ara

Universitat Autònoma de Barcelona

In these talks, we will introduce the concept of a sheaf of C*-algebras, together with some basic examples. We discuss the categories of modules for which a cohomology theory will be constructed. These categories are typically non-abelian, and this makes more difficult to adapt the standard theory developed in Algebraic Geometry to this setting. We therefore briefly explain the concept of an exact category and how the cohomology groups are introduced using injective resolutions. One of the basic new ideas is the notion of a C*-ringed space.