

# Standardly stratified ringoids

OCTAVIO MENDOZA

Instituto de Matemáticas

Universidad Nacional Autónoma de México

Ciudad de México, México

e-mail: [omendoza@matem.unam.mx](mailto:omendoza@matem.unam.mx)

Third International Colloquium: Alexander Zavadskij  
Medellín, Colombia, June 28-29, 2018

## Abstract

Standardly stratified algebras were introduced by V. Dlab, in 1996, as a generalization of the notion of quasi-hereditary algebras. Since then, this class of algebras has been extensively studied from different points of view. One of them, in which I am particularly interested, is relative homological algebra and cotorsion pairs.

The context where the standardly stratified algebras is usually defined is the class of finite dimensional algebras (with unity). In this talk, we propose a generalization of this notion to the context of  $K$ -algebras without unity but with enough idempotents. Thus we get to the concept of standardly stratified ringoids.

The algebras with enough idempotents appear in different situations, for example, as a generalization of Ringel's notion of species or in connection with the Galois covering in the sense of Bongartz and Gabriel. It is well known that the category of unital modules over rings with enough idempotents is equivalent to certain functor category with very nice properties that allow us to develop the theory of standardly stratified ringoids.

This is a joint work with: Martin Ortiz, Corina Sáenz and Valente Santiago.