

## K-THEORY WORKSHOP

### ABSTRACTS

Friday 27 July

11:00 - 11:50 **Pablo Peláez**

*Some remarks on the  $E_2$ -term of the slice spectral sequence*

We will discuss some properties of a strongly convergent spectral sequence whose abutment is the  $E_2$ -term of the slice spectral sequence.

12:00 - 12:20 **Jack Arce Flores** (Contributed talk)

*Representation of twisted tensor products*

We obtain a faithful representation of the twisted tensor product  $B \otimes_{\chi} A$  of unital associative algebras, when  $B$  is finite dimensional. This generalizes the representations of [C] where  $B = K[X]/\langle X^2 - X \rangle$ , [GGV] where  $B = K[X]/\langle X^n \rangle$  and [JLNS] where  $B = K^n$ . Furthermore, we establish conditions to extend twisted tensor products  $B \otimes_{\chi} A$  and  $C \otimes_{\psi} A$  to a twisted tensor product  $(B \times C) \otimes_{\varphi} A$ .

[A] J. Arce. Representation of twisted tensor Products. arXiv:1505.01232 [math.RA] 6 may 2015.

[C] C. Cibils. Non-commutative duplicates of finite sets. J. Algebra Appl , 5(3):361377, 2006.

[GGV] A. Guccione, J. J. Guccione and C. Valqui, Non commutative truncated polynomial extensions.

[JLNS] Jara, J. Lpez Pea, G. Navarro and D. Stefan, On the classification of twisting maps between  $K^n$  and  $K^m$ , arXiv:0805.2874v3 [math.RA] 24 Sep 2009

12:30 - 12:50 **Ian Coley** (Contributed talk)

*K-theory of derivators*

The  $K$ -theory of (triangulated) derivators was proposed by Maltsiniotis in 2007 and was expanded broadly by Muro-Raptis in 2014. I will give a bit of the reason for its existence, some early results before 2014, and results I have proven since 2014 using the Muro-Raptis framework. In particular, we have the properties of additivity and (pending current research) localization.

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14:20 - 15:10 **Charanya Ravi**

*Rigidity for equivariant pseudo pretheories*

This talk is a report on joint work with Jeremiah Heller and Paul Arne Østvær. We establish versions of the Suslin and Gabber rigidity theorems in the setting of equivariant pseudo pretheories of smooth schemes over a field with an action of a finite group. Examples of equivariant pseudo pretheories include equivariant algebraic  $K$ - theory and presheaves with equivariant transfers.

15:20 - 16:10 **Paul Balmer**

*Motivic  $tt$ -geometry*

After a reminder of some aspects of tensor-triangular geometry, we shall focus on examples from the theory of motives. We shall discuss work of several people and most specifically some recent remarkable work of Martin Gallauer. If time permits, we shall review some ongoing developments in joint work with him.