

ALGEBRA SEMINARS

A refinement of the gluing conjecture

By

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Abstract: The Gluing Conjecture, as stated in a 2004 paper of Linckelmann, asserts that certain second-degree cohomology classes on the automorphism groups of a certain category can be lifted to the whole category. In that paper, Linckelmann raised the question not only of existence of the lift, but also uniqueness. That of uniqueness was resolved in the negative by Park in 2010. However, back in 1988, Puig had warned, in a more general context, "... but it would be misleading to replace [the central extension] by [the second-degree cohomology class] because non-trivial elements of [the first-degree cohomology group] define non-trivial automorphisms of [the central extension] which are the identity on [the second-degree cohomology class]". We shall state a refined version of the conjecture that resurrects the question of uniqueness. We shall explain why uniqueness holds in the case of the Park example.

Date: December 24, 2018 <u>Time:</u> 10:40 – 11:50 <u>Place:</u> SA141 Mathematics Seminar Room

* Tea and cookies will be served before the talk. All are most cordially invited.