

# The automorphisms of a Jiang-Su stable $C^*$ -algebra are not classifiable up to conjugacy

August 8th, 2013  
Operator Algebras Seminar  
(Fields Institute)

After surveying some classification results for automorphisms of  $C^*$ -algebras, I will explain how one can obtain negative results about classification using tools from descriptive set theory and, in particular, Hjorth's theory of turbulence. As an application I will show that the automorphisms of any Jiang-Su stable  $C^*$ -algebra are not classifiable up to conjugacy using countable structures as invariants (joint work with David Kerr, Chris Phillips, and Wilhelm Winter).