

# Conjugacy and cocycle conjugacy of automorphisms of $\mathcal{O}_2$ are not Borel

April 15th, 2014  
Operator Algebras Seminar  
(Fields Institute)

I will present the result, obtained in joint work with Eusebio Gardella, that the relations of conjugacy and cocycle conjugacy of automorphisms of the Cuntz algebra  $\mathcal{O}_2$  are not Borel. I will focus on the motivations and implications of such result, and I will provide the main ideas of the proof. No previous knowledge of descriptive set theory will be assumed.