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**Konstantin Slutsky\*** ([kslutsky@gmail.com](mailto:kslutsky@gmail.com)). *Time change equivalence of multidimensional flows.*

A time change equivalence (TCE, for short) between free  $\mathbb{R}^d$ -flows is an orbit equivalence which is also a homeomorphism between orbits. This notion has been studied for a long time in ergodic theory, especially in the case  $d=1$ , where it is known that there are uncountably many pairwise time change inequivalent flows. In higher dimensions, results of Rudolph and Feldman show that up to TCE there is only one ergodic (quasi) measure preserving flow.

The Borel setting was addressed by Miller and Rosendal. Based on their results on Kakutani equivalence of Borel automorphisms, they were able to show that any two non-smooth free  $\mathbb{R}$ -flows are TCE. Higher dimensional situation remains unclear.

In the talk we will show that up to a compressible set any orbit equivalence between co-compact cross sections can always be extended to a TCE between the  $\mathbb{R}^d$ -flows. In particular, any two non-smooth flows are TCE up to a compressible set. (Received February 12, 2016)