SEMINARIUM UKŁADY DYNAMICZNE

Tytuł: **Smoothening singular group actions on manifolds**
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Motivated by the recent results around Zimmer's program, we study group actions on manifolds, with singular regularity (we require that every element is differentiable at all but countably many points). The groups under considerations have a fixed point property, named FW, which generalizes Kazhdan's property (T) (in particular we can consider actions of lattices in higher-rank simple Lie groups). The main result is that if a group G has property FW, any singular action of G on a closed manifold

1) either has a finite orbit,

2) or is conjugate to a differentiable action, up to changing the differentiable structure of the manifold.

This is a joint work with Yash Lodha and Nicolas Matte Bon.