

**Adam Mickiewicz University**  
**Faculty of Mathematics and Computer Science**

GEOMETRY AND TOPOLOGY SEMINAR

13:45 AM, Tuesday, May 15, 2018  
B1-37, Collegium Mathematicum

**Speaker:** Damian Sawicki (IMPAN)

**Title:** Metric spaces defined by group actions

**Abstract:**

We will discuss an over 20-year-old construction, which is currently undergoing a renaissance that has yielded spectacular results in metric geometry (a construction of a continuum of different super-expander graphs or counterexamples to the coarse Baum-Connes conjecture) and certain applications to the dimension theory of dynamical systems.

The construction associates to a group action on a compact manifold (or a Cantor set) an unbounded metric space, "warped cone", whose geometry reflects dynamical and ergodic properties of the action.