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**Dominik Kwietniak\***, Jagiellonian University in Krakow, Institute of Mathematics, ul. Łojasiewicza 6, 30-348 Kraków, Poland, and **Gabriel Fuhrmann**. *On the abundance of (non)tame group actions.*

Tame dynamical systems were introduced by Köhler in 1995. Tameness is a topological notion corresponding to compactness appearing in the compactness vs weak mixing dichotomy in the structure theory for measure preserving actions.

In recent years several authors developed the theory of tame systems revealing connections to other areas of mathematics like Banach spaces, circularly ordered systems, substitutions and tilings, quasicrystals, cut and project schemes and even model theory and logic.

During my talk, I will discuss tameness and nullness of regular almost automorphic  $G$ -actions utilising a generalised notion of semi-cocycle extensions (see “On tameness of almost automorphic dynamical systems for general groups” to appear in Bull. of the LMS for details). In particular, we show that every ergodic equicontinuous  $G$ -action on a compact metric space admits a regular almost automorphic extension which is non-tame as well as tame but non-null extension. In some sense, this complements a recent result of Glasner [Invent. Math. **211** (2018), no. 1, pp. 213–244]. We prove that such examples appear in well-studied families of group actions including Delone dynamical systems and symbolic systems (including Toeplitz flows over arbitrary  $G$ -odometers). (Received September 17, 2019)