Kurt Gödel Research Center, Austria Manuel.Inselmann@univie.ac.at

Basis and antibasis results for actions of locally compact groups

Joint work with Benjamin Miller

Given any locally compact, separable, and non-compact group G we construct continuum many free actions of G on locally compact Polish spaces with non-smooth induced orbit equivalence relation that form a basis under embedibility of all such actions of G on Polish spaces. Simultaneously, we show that any such basis must be of size at least continuum.