CENTRALIZERS AND FACTORS OF SIMPLE ACTIONS

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I will explain the (C,F)-construction of measure preserving actions, which is an algebraic counterpart of classical cutting-and-stacking technique, and demonstrate some applications of this technique to the theory of joinings of dynamical systems. In particular, (C,F)-formalism combined with Ornstein's technique of "random spacers" allows to produce probability preserving simple actions with centralizers prescribed in advance. I will present a recent joint work with Alexandre Danilenko, where we constructed simple mixing actions with uncountably many prime factors.