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Jessica Dyer, Steven Hurder and **Olga Lukina*** (lukina@uic.edu), 322 SEO (M/C 249),
University of Illinois at Chicago, 851 S. Morgan St, Chicago, IL 60607. *Homogeneity of group
actions on Cantor sets.*

An equicontinuous action of a group G on a Cantor set X can be represented by a decreasing chain of finite index subgroups G_i . Such a representation is not unique, depending on a number of factors. In this talk, we study classes of group chains, associated to conjugate actions. Using the properties of group chains, we classify the action by its degree of homogeneity. We introduce an invariant which distinguishes between the actions of different degree of homogeneity, and study the automorphism group for each type of the action. We give examples of the actions of the discrete Heisenberg group with various degrees of homogeneity. (Received August 04, 2015)