1154-37-2375 **Darren Creutz***, creutz@usna.edu. *(Relatively) Contractive Actions of Lattices and Lie Groups.*

A measurable action of G on a probability space is contractive when it is the "opposite of measure-preserving": $\sup_{g\in G} \nu(gB) = 1$ for every nonnull set B. A topological action of G on a compact metric space with a probability measure is contractible when every point mass is in the (weak*) closure of the orbit of the measure.

Every topological model of a contractive space is contractible, meaning the topological and measurable dynamics completely determine one another in this setting. These notions (and the relativized version of these notions), and particularly the interplay of topological dynamics and measurable dynamics, play a key role in various results (some due to the speaker) on the structure of actions of lattices and commensurators in semisimple Lie groups. I will present these notions and some fundamental results then outline the role they play in these structural results. (Received September 17, 2019)