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Tom Roby* (tom.robby@uconn.edu). *Homomesies Lurking in the Twelfold Way*. Preliminary report.

Given a group acting on a finite set of combinatorial objects, one can often find natural statistics on these objects which are *homomesic*, i.e., over each orbit of the action, the average value of the statistic is the same. Since the notion was codified a few years ago, homomesic statistics have been uncovered in a wide variety of situations within dynamical algebraic combinatorics. We discuss several examples lurking in Rota's *Twelfold Way* related to actions on injections, surjections (joint work with Michael Joseph), and bijections/permutations (joint work with Michael LaCroix) of finite sets. (Received July 19, 2016)