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Rebecca Weber* (rweber@math.dartmouth.edu), 6188 Kemeny Hall, Hanover, NH 03755. *Sets automorphic to low sets*. Preliminary report.

The non-low degrees are the only upward-closed jump class that is not degree invariant in the computably enumerable sets, as shown by Rachel Epstein. I will survey joint work in progress with Peter Cholak on a property of computably enumerable sets sufficient, and possibly necessary, to guarantee automorphism to some low c.e. set; the property is adapted from one of Maass. We distinguish the Δ_3^0 -automorphic case from the general case, though it is open whether automorphisms of higher arithmetic complexity change the situation. (Received February 14, 2011)