1138-46-241   **David Sherman*** (`dsherman@virginia.edu`). *Weak*-closed unitary orbits of self-adjoint operators in von Neumann factors.* Preliminary report.

We obtain a spectral description of the weak*-closure of the unitary orbit of a self-adjoint operator in a factor, and we contrast it with known results describing other closures. Perhaps most interesting is a "noncommutative Lyapunov phenomenon": the type I (atomic) case turns out to be qualitatively different from types II and III, in which the closed orbit is always convex. This is joint work with Chuck Akemann. (Received February 10, 2018)