1145-47-1086        **Don Hadwin** (don@unh.edu) and **Mahtab Lak\*** (lak.mahtab@gmail.com). *A general view of reflexivitgy for absolutely convex sets.* Preliminary report.

Suppose $(X, Y)$ is a dual pair over the field $\mathbb{F}$ (either the real or complex numbers), and suppose $E \subset Y$ separates the points of $Y$ and is closed under scalar multiplication. Then $(X, Y, E)$ is a *reflexivity triple* introduced by D. Hadwin in 1994. Hadwin, using annihilators, used reflexivity triples to introduce a very general notion of reflexivity for linear subspaces of $X$. We replace annihilators with polars and study a more general notion of reflexivity for absolutely convex subsets of $X$. The notions of hyperreflexivity and direct integrals in this setting require a completely new definition, but we are able to extend many of Hadwin's results and we obtain a result on hyperreflexivity that in new even in the original Hilbert space setting. (Received September 18, 2018)