Weighted shifts in linear dynamics

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Linear dynamics is the theory studying the dynamical behavior of the orbits of linear operators on a Banach space or, more generally, a Fréchet space. One of the most studied families of operators in this field is the family of weighted shifts.

During this seminar, it is only natural that we will be guided by weighted shifts as we traverse a century of evolution in linear dynamics. We will talk about hypercyclicity, mixing, chaos, and frequent hypercyclicity. Weighted shifts can, however, at times lack flexibility. We will therefore examine how weighted shifts are currently evolving to allow researchers to learn even more about the dynamical behavior of operators.