**ALEXEY POPOV**, University of Waterloo
*Every operator has an almost-invariant subspace*

We show that any bounded operator on a separable, reflexive, infinite-dimensional Banach space admits a rank-one perturbation which has an invariant subspace of infinite dimension and codimension. In the non-reflexive spaces, we show that the same is true for operators which have non-eigenvalues in the boundary of their spectrum. In the Hilbert space, our methods produce perturbations that are also small in norm.

This is a joint work with Adi Tcaciuc.