JAVAD MASHREGHI, Laval University
A Banach–Steinhaus type theorem

We introduce the notion of an asymptotically equicontinuous sequence of linear operators, and use it to prove the following result. If X, Y are topological vector spaces, if $T_n, T : X \to Y$ are continuous linear maps, and if D is a dense subset of X, then the following statements are equivalent: (i) $T_n x \to T x$ for all $x \in X$, and (ii) $T_n x \to T x$ for all $x \in D$ and the sequence (T_n) is asymptotically equicontinuous.

This is joint work with T. Ransford.