1133-42-174 **Jean-Pierre Gabardo*** (gabardo@mcmaster.ca), Department of Mathematics & Statistics, Hamilton Hall, Room 218, McMaster University, Hamilton, Ontario L8S 4K1, Canada. *Weighted Beurling densities and sampling theory.*

In this talk, we consider Hilbert (and Banach) spaces of functions or distributions supported on a fixed compact subset of $\mathbb{R}^d$ and for which the norm of an element is defined in terms of a weighted L^p-norm of its Fourier transform. The weight in question is assumed to be tempered and moderate. We explore the connection between sampling sets for these spaces and a suitable weighted version of Beurling density. In particular, in the Hilbert space case corresponding to $p = 2$, we obtain weighted versions of the classical density results of H. Landau which relates the measure of a compact set K to the allowable sampling rate for the Fourier transform of the L^2-functions vanishing a.e. outside of K. (Received July 24, 2017)