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**Jean-Pierre Gabardo\*** ([gabardo@mcmaster.ca](mailto:gabardo@mcmaster.ca)). *Beurling density in weighted Fourier spaces.*

The concepts of upper and lower Beurling density play an important role in sampling theory for the space of square-integrable functions on  $\mathbb{R}^n$  with spectrum contained in a bounded set. In this talk, we will consider the problem of defining appropriate notions of density for Hilbert spaces whose norm are defined by the integral of the square of the Fourier transform multiplied by a certain weight. Examples of such spaces are the standard Sobolev spaces  $H^s(\mathbb{R}^n)$ ,  $s \in \mathbb{R}$ . We will use the theory of frames to extend some density results valid for the usual  $L^2$ -norm to this more general setting. (Received February 22, 2016)