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Mark C Lammers* (lammerm@cc.wvu.edu). *Wilson bases and Convolution*. Preliminary report.

We use the tight frame associated with a Wilson basis $\{\psi_{j,k}\}$ to create a convolution for Gabor systems which are Bessel. The function $\{\psi_{0,0}\}$ acts as a left identity for this convolution when we restrict to the Modulation space M^1 with norm defined by the Wilson basis $\{\psi_{j,k}\}$. We use the convolution to approximate the canonical duals of M^1 functions with M^1 functions. (Received September 27, 2002)