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Wavelet frames for (not necessarily reducing) affine subspaces.

An affine subspace is a closed subspace of $L^2(\mathbb{R})$ that is generated by applying the dilation operators to a shift-invariant subspace. An affine subspace quite often is not a reducing subspace with respect to both dilation and translation operators. In this talk we will discuss some results about the generator problem, existence of wavelet frames and some structural properties for affine subspaces. This is a joint work with Q. Gu. (Received November 21, 2011)