998-42-17 **Joseph D Lakey*** (jlakey@nmsu.edu), Dept. of Math. Sci., NMSU, Las Cruces, NM 88003-8001, and **John E Gilbert** and **Jeffrey A Hogan**. *BMO and affine frame operators.*

In the theory of affine or 'wavelet' frame operators $f \mapsto \sum_{jk}\langle f, \phi_{jk}\rangle\psi_{jk}$, the analyzing and synthesizing functions are generated from the same analyzing wavelet $\phi = \psi$. In order that the frame operator is bounded it is necessary that this wavelet have integral zero. If one uses different functions ϕ and ψ for the analysis and synthesis, it is only required that one of the functions has a vanishing integral. However, in that case it is more difficult to devise sufficient conditions in order that the affine operator be bounded and continuously invertible, i.e., that it defines a frame operator. We will discuss some sufficient conditions on the generators related to David and Journé's $T1$ theorem. This is joint work with John Gilbert and Jeff Hogan. (Received December 16, 2003)