983-40-745 **Radu Balan*** (`rvbalan@scr.siemens.com`), 755 College Road East, Princeton, NJ 08540, and **Zeph Landau** (`landau@cs.berkeley.edu`), 1000 Centennial Drive, Berkeley, CA 94720. *Measure Function and Redundancy of Weyl-Heisenberg Multiframes and Superframes.*

In this talk we compute the frame measure and redundancy of Weyl-Heisenberg multiframes and superframes. In previous talks we introduced the abstract frame measure function. Denote by $F[I]$ the set of all frames indexed by I. We fix a sequence of nested finite and covering subsets of I, (I_n). For a compact and separable space M, the frame measure function is a map $m : F[I] \rightarrow C(M)$ so that: (i) $F1 \quad F2$ iff $m(F1) = m(F2)$; (ii) $F1 \Leftarrow F2$ iff $m(F1) \Leftrightarrow m(F2)$; (iii) If F is a Riesz basis then $m(F) = 1$; (iv) If $(F1, F2)$ is an orthogonal superframe then $m(F1 + F2) = m(F1) + m(F2)$. For a Weyl-Heisenberg multiframe $G = (g1, ..., gL; A1, ..., AL)_m$ in R^d, the measure function turns out to be: $m(G) = 1/(1/det(A1) + ... + 1/det(AL))$, and redundancy: $R(G) = 1/det(A1) + ... + 1/det(AL)$ For a Weyl-Heisenberg superframe $G = (g1, ..., gL; A1, ..., AL)_s$ in R^d, the frame measure function has the form: $m(G) = det(A1) + ... + det(AL)$ whereas the redundancy is: $R(G) = 1/(det(A1) + ... + det(AL))$. (Received September 23, 2002)