1046-15-90   **Jennifer L. Wolfe*** (`wolfe2jl@cmich.edu`), **Rachael L. Tomasino**, **Eileen L. Radzwion** and **Sara P. Rimer**. *Frames: Surgeries, Dilation, and Robustness.* Preliminary report.

Frames are redundant sets of vectors, denoted $\{f_i\}_{i=1}^n$, in a Hilbert space $\mathcal{H}$. They are a nontrivial generalization of orthonormal bases, and share many nice properties with orthonormal bases. The added redundancy from additional vectors allows for reconstruction of lost data in data transfers. We have considered some of the properties of frames that make them most successful in data transfer, such as frame surgeries, dilation of frames into higher dimensions, and robustness of frames. In particular, due to the straightforward nature of tight and Parseval frames, they are a main focus of our studies. In this talk, we will present the necessary background material and some new results. (Received July 22, 2008)

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