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Martin S Copenhaver, Yeonhyang Kim, Cortney Logan, Kyanne Mayfield and Sivaram K. Narayan* (sivaram.narayan@cmich.edu), Department of Mathematics, Central Michigan University, Mount Pleasant, MI 48859, and **Jonathan Sheperd**. *Maximum Robustness and Surgery of Frames in Finite Dimensions*.

We consider frames in a finite-dimensional Hilbert space where frames are exactly the spanning sets of the vector space. We present a method to determine the maximum robustness of a frame. We present results on tight subframes and surgery of frames. We also answer the question of when length surgery resulting in a tight frame set is possible. (Received September 23, 2012)