

1145-VN-1626 **Matthew Jacob Roberts*** (majrober@mtu.edu), 1400 Townsend Dr., Houghton, MI 49931.

Approximating the Generalized Singular Value Expansion.

The singular value expansion (SVE) of a compact operator is invaluable for analyzing Tikhonov regularization. For semi-norm regularization, where a regularization operator such as the gradient is also involved, the generalized singular value expansion (GSVE) can be used in place of the SVE. In this talk, we discuss the approximation of the GSVE of a pair of operators and present sufficient conditions for the convergence of a sequence of discretizations. (Received September 23, 2018)