1145-VN-1018 Nasim Eshghi* (neshghi@kent.edu), 6800 Alpha Dr, Apt 362, Kent, OH 44240, and Lothar Reichel (reichel@math.kent.edu), 233 MSB, 1300 Lefton Esplanade, kent, OH 44242. Estimating Error Of Matrix Function Approximation.

The evaluation of matrix functions f(A)v, where A is a large symmetric matrix, f is a function, and v is a vector, may be prohibitively expensive. It is well known that the Lanczos algorithm can be used to determine inexpensive approximations of f(A)v. This talk is concerned with estimating the error in the computed approximations (Received September 18, 2018)