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**Alexander M. Powell\*** ([alexander.m.powell@vanderbilt.edu](mailto:alexander.m.powell@vanderbilt.edu)), Vanderbilt University,  
Department of Mathematics, Nashville, TN 37240. *Error estimates for recursive consistent estimation.*

The Rangan-Goyal (RG) algorithm is a recursive method for constructing an estimate  $x_N$  of a vector  $x \in \mathbb{R}^d$ , if one is given  $d \leq N$  frame coefficient measurements of  $x$  that have been corrupted by uniform noise. We shall address mean square error (MSE) estimates for the RG-algorithm in the settings of both random and deterministic frames and prove that the RG-algorithm achieves MSE of order  $1/N^2$ . (Received August 07, 2007)