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Gretchen L. Matthews* (gmatthews@vt.edu), Department of Mathematics, Virginia Tech, Blacksburg, VA 24060. *Repairing codes and applications.*

In order to recover missing symbols in a codeword of an $[n, k]$ Reed-Solomon code, one can use any k available symbols together with polynomial interpolation. In doing so, the entire codeword can be determined. Recently, Guruswami and Wootters introduced repairing Reed-Solomon codes which allow for recovery of a single symbol using traces, a method which may circumvent the required k symbols mentioned above. This work has been extended to other families of codes. In this talk, we consider applications of this technique. (Received September 17, 2019)