1145-11-1986 Kathryn Haymaker, Beth Malmskog* (beth.malmskog@gmail.com) and Gretchen Matthews. Locally Recoverable Codes with Many Recovery Sets from Fiber Products of Curves.

A locally recoverable code is an error correcting code in which each position (coefficient) of a given codeword can be recovered with access to only r other positions. These were developed to meet needs in distributed data storage, where information may be stored on large banks of servers. It is desirable that any given codeword be distributed over many servers so that the information can be recovered if a single server fails. However, if many servers fail, it might be necessary to have multiple recovery sets for each position in order to recover it. In this talk, I briefly present a construction based on fiber products for which each coefficient has several disjoint recovery sets. This is joint work with Kathryn Haymaker and Gretchen Matthews. (Received September 24, 2018)