



Rings & Wings

`math.uccs.edu/algebra-seminar`

Beth Malmskog

Colorado College

April 2, 2025

Title: Locally Recoverable Codes with Hierarchy from Algebraic Surfaces

Abstract: Motivated by cloud storage applications, Locally Recoverable Codes (LRCs) are error-correcting codes with the additional property that each symbol in any codeword can be recovered by accessing a relatively small set of other symbols. If many symbols fail, it may be desirable to have a larger recovery set that allows for the recovery of additional information. LRCs with such nested recovery sets are said to have hierarchical recovery. This talk will focus on one way to use natural algebraic and geometric structures in algebraic surfaces to create evaluation codes with hierarchical recovery.