

1154-11-1196

Giacomo Micheli*, Department of Mathematics, University of South Florida, Tampa, FL.

Optimal Locally Recoverable Codes via Galois Theory.

We provide a Galois theoretical framework which allows to produce good polynomials for the Tamo and Barg construction of optimal locally recoverable codes (LRC). Our approach allows to prove existence results and to construct new good polynomials, which in turn allows to build LRCs with new parameters. The existing theory of good polynomials fits in our framework. (Received September 13, 2019)