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**Jill Pipher\*** (jill\_pipher@brown.edu), **Jeffrey Hoffstein** (jhoff@math.brown.edu) and **Joseph Silverman** (jhs@math.brown.edu). *Cryptographic constructions via secret finite field isomorphisms.*

We describe how to use secret finite field isomorphisms to construct cryptographic primitives such as partially homomorphic encryption schemes and digital signature schemes. This is joint work with Jeff Hoffstein, Joseph Silverman, and others. Primary MSC(s): 94A60, 11T71 (Received September 06, 2016)