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**Andreas Klappenecker\*** (klappi@cse.tamu.edu), College Station, TX 77843-3112. *Quantum Codes and Fault-Tolerant Quantum Operations over Finite Frobenius Rings.*

The idealized model of quantum computation promises for certain problems a considerable speed-up over classical computation. However, protecting quantum information requires a considerable effort. We discuss the construction of quantum codes over finite Frobenius rings and the construction of fault-tolerant operations acting on such codes. (Received July 18, 2016)