1145-94-2230 **Gretchen Matthews*** (gmatthews@vt.edu). *Algebraic geometry codes in the McEliece cryptosystem.*

There is renewed interest in the McEliece cryptosystem, which was developed in the late 1970s, due to its potential resilience in the presence of quantum algorithms. The McEliece cryptosystem utilizes error-correcting codes to keep private information secure, and its effectiveness depends on the properties of the underlying codes. In this talk, we consider the use of algebraic geometric (AG) codes and demonstrate modifications of traditional AG codes that yield superior performance. (Received September 25, 2018)