1125-11-551    **Benjamin Linowitz**, **D. B. McReynolds**, **Paul Pollack** and **Lola Thompson\***
(`lola.thompson@oberlin.edu`). *Counting quaternion algebras.*

In this talk, we discuss how classical techniques from multiplicative number theory can be used to count quaternion algebras over number fields subject to various constraints. Because of the correspondence between maximal subfields of quaternion algebras and geodesics on arithmetic hyperbolic manifolds, these counts have interesting applications to the field of spectral geometry. (Received September 06, 2016)