

1145-AE-1125 **Nickolas Andersen*** (nandersen@math.ucla.edu) and **William Duke**. *Modular billiards and Diophantine approximation.*

The classical problem of determining the worst approximable irrational numbers was famously solved by Markov in 1880 using the theory of binary quadratic forms and continued fractions. This set of badly approximable numbers, known as the Markov spectrum, has an elegant interpretation in terms of hyperbolic billiards in the modular triangle. I will review the classical theory in this setting and describe some recent results characterizing other Markov-like spectra. This is joint work with Bill Duke. (Received September 19, 2018)