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Ilya Gekhtman, Samuel J Taylor* (samueltaylor@temple.edu) and **Giulio Tiozzo**. *A central limit theorem for random closed geodesics on surfaces.*

In 2013, Chas, Li, and Maskit produced numerical experiments on random closed geodesics on a hyperbolic pair of pants. Namely, they drew uniformly at random conjugacy classes of a given word length, and considered the hyperbolic lengths of the corresponding closed geodesic on the pair of pants. Their experiments lead to the conjecture that the length of these closed geodesics satisfies a central limit theorem. I will discuss a proof of this conjecture obtained in joint work with I. Gekhtman and G. Tiozzo, and its generalizations to all negative curved surfaces. (Received July 18, 2019)