

## Random loops

*Thursday, 20 June 2019 14:30 (1 hour)*

A “rubber band” constrained to remain on a manifold evolves by trying to shorten its length, eventually settling on a closed geodesic, or collapsing entirely. It is natural to try to consider a noisy version of such a model where each segment of the band gets pulled in random directions. Trying to build such a model turns out to be surprisingly difficult and generates a number of nice geometric insights, as well as some beautiful algebraic and analytical objects. We will survey some of the main results obtained on the way to this construction.

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