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The Casson invariant of random Heegaard splittings

The mapping class group element resulting from a finite length random walk on the mapping class group may be used as the gluing map for a Heegaard splitting, and the resulting 3-manifold is known as a random Heegaard splitting. We use these to show the existence of closed hyperbolic 3-manifolds of arbitrarily large volume with any given value of the Casson invariant. This is joint work with Alexander Lubotzky and Conan Wu.