Asymptotic laws for knot diagrams

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Résumé

We study random knotting by considering knot and link diagrams as decorated, (rooted) topological maps on spheres and sampling them with the counting measure on from sets of a fixed number of vertices n. We prove that random rooted knot diagrams are highly composite and hence almost surely knotted (this is the analogue of the Frisch-Wasserman-Delbru ck conjecture) and extend this to unrooted knot diagrams by showing that almost all knot diagrams are asymmetric. The model is similar to one of Dunfield, et al.

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