Dear Editors,

My coauthors and I would like to propose our paper "Knot Probabilities in Random Diagrams" for publication in J. Phys. A. The topic of random knots has been of interest to physicists for many years and has been well-covered in the pages of JPA.

In this paper, we present the results of a computational experiment enumerating the knot diagrams with 10 and fewer crossings (about 2 billion diagrams altogether), which yield exact probabilities for knots generated by randomly selecting a diagram. The unique feature of our dataset is that one can reliably compute the probabilities of all the knot types represented in the space, with knot frequencies ranging over 9 orders of magnitude. This is the first time that data with this much range has been presented in the random knotting literature, and the data set should be very useful for future experiments.

Our data suggests a number of interesting conjectures about the relative frequencies of random knots, which we explore in the text. However, we view the dataset itself as the primary contribution of this experimental paper. We intend to make the entire dataset available as supplementary data if our paper is accepted.

Best regards,
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