



Einladung zum Oberseminar Stochastik

Am Mittwoch, 03. Juni 2026 um 17:45 Uhr, im Seminarraum 1 (Raum 005)
der Abteilung Mathematik, Weyertal 86–90, 50931 Köln, spricht:

Dr. Simon Briend
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zum Thema

Estimating the history of random recursive trees

Abstract

In this joint work with Johannes Bäuml and Joost Jorristma, we estimate the arrival time of vertices in a uniform random recursive tree from its unlabeled structure. Using centrality-based rankings, we derive tail bounds for the relative estimation error that are uniform in the vertex and the tree size. For the ranking induced by Jordan centrality, the probability that the estimate exceeds the true arrival time by a factor S decays on the order of $1/S$, while the probability that it is smaller than the true arrival time by a factor $1/S$ decays exponentially in S . We introduce a refined centrality measure whose overestimation probability decays on the order of $(\log S)/S^2$, at the cost of a heavier lower tail of order $1/S^2$. These results identify a tradeoff between upper- and lower-tail performance in arrival-time estimation.

Interessenten sind herzlich eingeladen.

Die Dozenten der Stochastik