



Einladung zum Oberseminar Stochastik

Am Donnerstag, 25.11.2021, um **17:45 Uhr**, im Seminarraum 1 (Raum 005)
der Abteilung Mathematik, Weyertal 86-90, 50931 Köln spricht:

Dr. Bas Lodewijks

(University of Bath)

zum Thema

Degree evolution in Weighted Recursive Graphs

We consider the weighted recursive graph model (WRG), an evolving random graph model where vertices are assigned positive, i.i.d. vertex-weights, and where at each step a new vertex is introduced which connects to existing vertices with a probability proportional to their vertex-weights. This model can be interpreted as the random recursive tree in a random environment or directed acyclic graph in random environment (the multigraph case). In this talk, we investigate the degree evolution of the model. More precisely, we discuss the behaviour of the degree distribution, the asymptotic size of the maximum degree and the asymptotic size of the labels of vertices which attain the maximum degree. We are able to distinguish various classes of vertex-weight distributions for which different behaviour is observed, most notably between distributions with bounded and unbounded support. The research presented is joint work with Marcel Ortgiess (University of Bath) and Laura Eslava (Universidad Nacional Autónoma de México).

Alle Interessenten sind herzlich eingeladen.

Die Dozenten der Stochastik