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# Einladung
# zum
# Oberseminar Stochastik

Am Donnerstag, 17. Januar 2019, um **17:45 Uhr**, im Cohn-Vossen-Raum des Mathematischen Instituts (Raum 313), Weyertal 86-90, 50931 Köln spricht:

**Mark Yarrow**
**(University of Sheffield)**

zum Thema

**Coexistence in preferential attachment networks with vertex types**

During this talk I will address results we obtained from two separate models based around preferential attachment. The first of these being the choice of $r$ model discussed in a recent article by J.Haslegrave, J.Jordan and I. This model uses preferential attachment to select $r$ vertices from a graph $G_n$ on $n + n_0$ at time $n$. These $r$ vertices are then ranked according to fixed coefficients assigned at each of their creations. A new vertex is then connected to each of these according to a predetermined vector of probabilities based on the rank of the selected $r$ vertices. We have shown that condensation can occur for any of these such vectors if there exists two or more stable fixed points to the corresponding set of stochastic approximation equations. The second half of my talk concerns the coexistence between vertices in preferential attachment networks with different types and locations. Using similar methods as in the choice of $r$ we have been able to classify whether coexistence can occur in a number of interesting cases. I will then give examples of situations where coexistence can occur and phase transitions between situations where it does and does not.

Alle Interessenten sind herzlich eingeladen.
Die Dozenten der Stochastik