Da: Marcel Ortgiese <M.Ortgiese@bath.ac.uk>
Oggetto: PhD position at the University of Bath
Data: 17 gennaio 2017 12:46:42 GMT+01:00

Dear all,

I am currently advertising a PhD position in networks at the University of Bath, for details see below.
I'd be grateful if you could pass the message on to anyone who you think might be interested.
For further details, please contact me at m.ortgiese@bath.ac.uk.

Thank you,
Marcel

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Topic: Preferential attachment networks with fitness
Application deadline: Tuesday, January 31, 2017
Anticipated start date: 2 October 2017

UK and EU students may apply for a University Research Studentship which will cover Home/EU tuition

fees, a training support fee of £1000 per annum and a tax-free maintenance allowance of £14,296 (2016/17 rate) for 3.5 years.

See also https://www.findaphd.com/search/ProjectDetails.aspx?PJID=80623 and follow the link to apply online (choose "PhD programme in Statistics (full-time)" and mention the project title).

Project description:
This PhD project is based in a modern area of probability at the intersection of random graphs, branching processes and processes in random environments.

The main topic of the project is the analysis of growing network models. Following the paradigm of preferential attachment, these models offer a simple explanation to why power laws can be observed in real-life networks such as the world wide web. The basic rule is that when new nodes are introduced into the network, they prefer to establish connections to old nodes that already have many connections.

In this project we will consider the preferential network model with fitness. Here, the classical preferential attachment mechanism is modified by equipping each node with a random fitness. This models the fact that not every new node in a real-life network has the same initial attractiveness. The aim of the project is to understand how this extra randomness modifies the structure of the network. The mathematical analysis is closely related to studying processes in random environment and in particular to non-homogeneous branching processes.

The project will be based at the internationally recognised probability laboratory at the University of Bath and the PhD candidate would benefit from a vibrant research environment and the interaction with other postgraduate students and other specialists working on closely related topics.
