

April 5-11, 2020

N* Novosibirsk
State
University
***THE REAL SCIENCE**

Spring School in Advanced Probability

Vsevolod Shneer

Rate-allocation in wireless communication networks: stability and throughputs

We will consider a range of models motivated by various protocols for transmitting messages in wireless communication networks. Among these protocols and the well-known MaxWeight, alpha-fair, CSMA and others. We will consider questions of stability and throughput achieved by networks governed by these protocols.



Seva Shneer is an Associate Professor at the Department of Actuarial Mathematics and Statistics at Heriot-Watt University, Edinburgh, UK. Seva received his PhD in probability from Heriot-Watt University in 2006 and later held a postdoctoral position at EURANDOM, Eindhoven University of Technology. He then worked as a senior research fellow at EPFL, Lausanne, Switzerland, before joining Heriot-Watt University as Assistant Professor in 2010. Seva's main research interests are in stability and performance analysis of stochastic networks, especially those appearing in queueing theory, communication networks, data centres and energy applications.

Fraser Daly

The Stein-Chen method: Coupling techniques for probability approximations

The Stein-Chen method is a powerful modern technique for obtaining explicit error bounds in probability approximation, even in the presence of relatively intricate dependence between the underlying random variables. In this course we will begin with an overview of the Stein-Chen method, focusing firstly on the classical Gaussian and Poisson cases. We will illustrate the technique with classical limit theorems and approximations for sums of locally dependent random variables.



Since 2013, Fraser Daly has been an assistant professor at Heriot-Watt University, UK. He previously held postdoctoral positions in Bristol and Zürich, and obtained his PhD from the University of Nottingham in 2008. His research is in applied probability, with particular emphasis on Stein's method for probability approximations and its applications in proving limit theorems for random systems and processes with dependence.



Registration is required:
open until 30th March

Time and location:
Novosibirsk State University, 10:00
More information:
tiny.cc/ohc9hz

MATHEMATICAL
CENTER IN AKADEMGORODOK

