BMS Summer School 2011

Random Motions and Random Graphs

Week Two

(5 September)

	Tuesday, Oct. 04	**Wednesday, Oct. 05**	**Thursday, Oct. 06**	**Friday, Oct. 07**
09:30–11:00	van der Hofstad	Chauvin	van der Hofstad	Chauvin
	coffee break			
11:30–13:00	Chauvin	van der Hofstad	Chauvin	van der Hofstad
	lunch break			
14:30–16:00	Fitzner	Mailler	Fitzner	Mailler
	coffee break			
16:30–17:30	König	Rœlly	Kupper	Torres Weller Benard
17:30–18:30	Heydenreich Fitzner Ruszel	Munsonius Lenz Marko	Temmel Goodman Kiss	Imran Khosla Mönch

Lectures and exercises

Brigitte Chauvin and **Cécile Mailler:**
Random trees for analysis of algorithms

Remco van der Hofstad and **Robert Fitzner:**
Stochastic processes on random graphs: routing and attack vulnerability

Survey Talks

Wolfgang König (Weierstraß-Institut and Technische Universität Berlin):
Connectivity problems in telecommunication

Sylvie Rœlly (Universität Potsdam):
Characterization of some processes (Wiener, Poisson, Gibbs,...) by duality formulae

Michael Kupper (Humboldt Universität Berlin):
Minimal Supersolutions of BSDEs

Contributed Talks

Heydenreich:
Random walk on critical percolation clusters

Fitzner:
Matrix bases approach to analyze the non-backtracking walk

Ruszel:
Sandpile models on random graphs

Munsonius:
Recurrences of random variables arising in random trees or recursive algorithms

Lenz:
Network reliability, combinatorics, and some inequalities

Marko:
Allocations in randomized approximation algorithms to MAX-CSPs

Temmel:
k-independent percolation on trees

Goodman:
The "strong disorder" limit for first passage percolation on the complete graph

Kiss:
A percolation process on the binary tree where large nite clusters are frozen

Torres:
Gap-alignment model for random sequences

Weller:
Random planar graph processes

Benard:
A comprehensive study of macroscopic structures of a random graph and its formation process using tools of stochastic processes

Imran:
Metric dimension and R-sets of connected graphs

Khosla:
Orientability of random hypergraphs

Mönch:
Average distances in preferential attachment models