

Program of the workshop
Branching Processes and Derived Processes
CIRM, Luminy, France, 26-29 April 2011

■ **Tuesday 26 April**

◇ 8:45 *Opening*

Morning: Limit Theorems
Chairman Nikolay Yanev

◇ 9:00-9:40 **Serik Sagitov** (Chalmers University of Technology, University of Gothenburg, Gothenburg, Sweden)
Linear-fractional age-dependent branching processes

◇ 9:40-10:20 **Mathieu Richard** (Université Paris 6, France)
Limit theorems for supercritical branching processes with neutral immigration

Chairman: Peter Jagers

◇ 10:50-11:30 **Maroussia Slavtchova-Bojkova** (Sofia University, Bulgaria)
Limit theorems for multi-type subcritical age-dependent branching processes with two types of immigration

◇ 11:30-12:10 **Sophie Péniisson** (Université Nancy 1, France)
Several ways of conditioning branching processes

Afternoon: Population dynamics/Statistics
Chairwoman: Sophie Péniisson

◇ 14:00-14:40 **Manuel Molina**, Manuel Mota, Alfonso Ramos
(University of Extremadura, Spain)
Birth-death branching models in random environments and their application to population dynamics

◇ 14:40-15:20 Miguel González, **Cristina Gutiérrez** (University of Extremadura, Badajoz, Spain), Rodrigo Martínez
Parametric Bayesian inference for Y-linked bisexual branching models

Chairman: Manuel Molina

◇ 15:50-16:30 **Faïza Maïouia** (Université de Tunis, Tunisie)
On the Mean-Covariance Estimation for Supercritical Multi-type Branching Processes

◇ 16:30-17:10 **Vessela Stoimenova** (Sofia University, Bulgaria), Dimitar Atanasov
Trimmed Likelihood Estimation in a Class of Multitype Branching Processes

■ Wednesday 27 April

*Morning: Special Lectures
Chairman: John Biggins*

◇ 9:15-10:15 **Peter Jagers** (Chalmers University of Technology, University of Gothenburg, Sweden)
Branching Processes with a Carrying Capacity

◇ 11:00-12:00 **Nikolay M. Yanev** (Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia, Bulgaria)
Limit Theorems for Multitype Branching Processes with Large Number of Ancestors

Afternoon: free/excursion to Cassis and boat tour



■ Thursday 28 April

Morning: Cell proliferation/Genetics/Evolution
Chairman: Peter Olofsson

◇ 9:00-9:40 **Marek Kimmel** (Rice University, Houston, TX, USA)
Heterogeneity of proliferating cell populations: Old models and new data

◇ 9:40-10:20 **Cristian Tomasetti** (Harvard University & Dana Farber Cancer Institute, Boston, MA, USA)
On the probability of random genetic mutations for various types of tumor growth

Chairman: Marek Kimmel

◇ 10:50-11:30 **Atiyo Ghosh** (Institute of Environmental Sciences, Leiden University, The Netherlands), Maria Conceição Serra, Patsy Haccou
Hazard Rates of Introgression in Random Environments

◇ 11:30-12:10 **Didier Piau** (Université Joseph Fourier, Grenoble, France)
On some usual and some not-so-usual models of nucleotidic sequence evolution

Afternoon: Population dynamics/Epidemics
Chairman: Frank Ball

◇ 14:00-14:40 **Vincent Bansaye** (Université Pierre et Marie Curie, Ecole Polytechnique) and Christian Boeinghoff
Large deviations for branching processes in random environment

◇ 14:40-15:20 **Peter Olofsson** (Trinity University, San Antonio, TX, USA), Suzanne Sindi
Modeling prion dynamics in yeast

◇ 15:20-16:00 Frank Ball, Miguel González, **Rodrigo Martínez** (University of Extremadura, Spain), Maroussia Slavtchova-Bojkova
Time to extinction of an infectious disease through Crump-Mode-Jagers branching processes

Chairwoman: Maroussia Slavtchova-Bojkova

◇ 16:30-17:10 **Frank Ball** (University of Nottingham, University Park, Nottingham, United Kingdom), David Sirl
Acquaintance vaccination in epidemics on random networks

◇ 17:10-17:50 **Christine Jacob** (French National Institute for Agricultural Research, Jouy-en-Josas, France) and Sophie Péniçon
Limit models for a new general class of multitype branching processes with memory and population dependence. Application in epidemics

■ Friday 29 April

Morning: Processes with branching
Chairman: Serik Sagitov

◇ 9:00-9:40 **John D. Biggins** (University of Sheffield, United Kingdom)
Superspeed in the multitype branching random walk.

◇ 9:40-10:20 **Elena Yarovaya** (Moscow State University, Russia)
Limit distributions for the number of particles in branching random walks with a few sources

Chairman: Vincent Bansaye

◇ 10:50-11:30 **Klaus Fleischmann** (Weierstrass Institute for Applied Analysis and Stochastics, Leibniz Institute in Forschungsverbund Berlin, Berlin, Germany)
Properties of states of super- α -stable motion with branching of index $1 + \beta$

◇ 11:30-12:10 **Romain Abraham** (Université d'Orléans, Orléans, France),
Jean-François Delmas, H. He
Pruning Galton Watson trees and a tree-valued Markov process

Afternoon: Processes with branching
Chairman: Romain Abraham

◇ 14:00-14:40 **Penka Mayster** (Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia, Bulgaria)
Random time changed branching processes and Lévy processes

◇ 14:40-15:20 **Guy Latouche** (Universite Libre de Bruxelles, Brussels, Belgium)
Markovian trees subject to catastrophes: would they survive forever?

◇ 15:20 *Closure*



Branching for ever!