



The
Alan Turing
Institute



Workshop
«SDEs/SPDEs: Theory, Numerics and their interplay with Data Science»
June 26-30, 2019

Location: Building of the Department of Mathematics and Applied Mathematics
Room A-303 (1st Floor)

TALKS SCHEDULE

Wednesday June 26, 2019
Room A303

11.00– 12.30

István Gyöngy

«On Nonlinear Filtering and Stochastic PDEs»

Thursday June 27, 2019
Room A303

16.20 – 17.00

Registration

Chairman Sotirios Sabanis

17.00 – 18.00

Miklós Rásonyi

«Recursive procedures with dependent data»

18.00 – 18.15

Coffee Break

18.00 – 19.00

István Gyöngy

«On the Innovation Conjecture of Nonlinear Filtering»

Friday June 28, 2019
Room A303

Chairman Raúl Tempone

10:00 – 11.00

Eric Moulines

«TBA»

11.00 – 11.30

Coffee Break

11.30 – 12.15

Nicolas Chopin

«Using sequential quasi-Monte Carlo for inference in partly observed diffusion processes»

12.15 – 13.00

Denis Belomestny

«Variance reduction for MCMC methods via martingale

representations»

13.00 – 15.00

Lunch Break

Chairman Eric Moulines

15:00 – 15:45

Alexey Naumov

«Variance reduction for dependent sequences via empirical variance minimization with applications»

15:45 – 16:15

Ying Zhang

«Higher Order Langevin Monte Carlo Algorithm»

16.15 – 17.00

Coffee Break & Poster Session

17:00 – 17:45

Håkon Hoel

«Multilevel ensemble Kalman filtering algorithms»

17.45 – 18.30

Andreas Eberle

«Couplings and convergence to equilibrium for Langevin dynamics and Hamiltonian Monte Carlo methods»

21.00 Workshop Dinner

**Saturday June 29, 2019
Room A303**

Chairman István Gyöngy

10:00 – 10:45

Georgios Zouraris

«On the convergence of the Crank Nicolson/FEM for a linear stochastic heat equation»

10:45 – 11:30

Alain Durmus

«On the convergence of the Hamiltonian Monte Carlo algorithm and other irreversible MCMC methods»

11.30 – 12.00

Coffee Break

12.00 – 12.45

Thomas Müller-Gronbach

«A strong order 3/4 method for SDEs with discontinuous drift coefficient»

12.45 – 13.30

Konstantinos Dareiotis

«Approximation of stochastic equations with irregular drift»

13.30 – 15.00

Lunch Break

Chairman Georgios Zouraris

15.00 – 15:45

Máté Gerencsér

«Boundary regularity of stochastic PDEs»

15.45 – 16.30

Raúl Tempone

«Pricing American options by exercise rate optimization and Markovian projections»

Sunday June 30, 2019
Room A303

09.00-09.45

Larisa Yaroslavtseva

*«On the performance of the Euler-Maruyama
scheme for SDEs with discontinuous drift coefficient»*

11.00 Visit to Archaeological Site of Knossos