Stochastic Processes and Their Applications

(Fields Institute Off-site Workshop), August 9 –11.

School of Mathematics and Statistics, Herzberg Building, HP 4351
Carleton University

August 9

8:15-9:00	Coffee / Registration/ Welcome
9:00-10:30	**David McDonald** (University of Ottawa) *Yaglom Limits* - **tutorial**
10:30-10:45	Coffee break / Registration
10:45-11:35	**Wei Sun** (Concordia University) *Hunt's Hypothesis (H) and Getoor's Conjecture*
11:35-12:00	**Jhelum Chakravorty** (McGill University) * *Fundamental Limits of Remote Estimation*
12:00-13:15	Lunch
13:15-14:05	**Peter Caines** (McGill University) *Mean Field Game Theory for Partially Observed Systems with Applications to Execution Problems in Finance*
14:05-14:15	Coffee break
14:15-15:05	**Geneviève Gauthier** (HEC Montreal) *Extracting Latent States from High Frequency Option Prices*
15:05-15:30	**Ali Kara** (Queen's University) * *Continuity and Robustness to Incorrect Priors for Partially Observed Stochastic Control*
15:30- 15:45	Coffee break
15:45- 16:35	**Ravi Mazumdar** (University of Waterloo) *Insensitivity of the Mean Field of Loss Systems under Randomized SQ(d) Algorithms*
16:35-17:00	**Ryan Kinnear** (University of Waterloo) * *Learning Granger Causality Graphs: Causal Inference for Time Series Data*

August 10

8:30-9:00   Coffee

9:00-9:50   **Aditya Mahajan** (McGill University)
Decentralized Kalman Filtering

9:50-10:40   **Serdar Yuksel** (Queen's University)
Strategic Measures Approach to Decentralized Stochastic Control: Structural, Existence and Approximation Results

10:40-11:00   Coffee break

11:00-11:50   **Roland Malhame** (Ecole Poly. de Montreal)
Min_LQG Games and Collective Discrete Choice Problems

11:50-12:15   **Alex Shestopaloff** (University of Toronto) *
Sampling Latent States for High-dimensional Non-linear State Space Models with the Embedded HMM Method

12:15-13:30   Lunch

13:30-14:20   **Vladimir Vinogradov** (Ohio University)
On Branching Particle Systems and Galton-Watson Processes with Sibuya-Type Branching Mechanism

14:20-15:10   **Shui Feng** (McMaster University)
Asymptotic Results of Two-Parameter Dirichlet Process

15:10-15:30   Coffee break

15:30-16:20   **Xiaowen Zhou** (Concordia University)
A Continuous-state Nonlinear Branching Process

16:20-16:45   **Jun Yang** (University of Toronto) *
Complexity Bounds for Markov Chain Monte Carlo

August 11

8:45-9:15	Coffee

9:15-10:45   **Opher Baron** (University of Toronto)
Queueing and Markov Chain Decomposition (QMCD), the Single Stage Subsystems Case: Motivation and Examples – **tutorial**

10:45-11:00   Coffee break

11:00-11:50   **Javad Tavakoli** (UBC)
Numerical Methods to Deal with GI/G/1 Queues when Inter-arrival Times and/or Service Times have Geometric Tails

11:50-13:00   Lunch

13:00-13:25   **Haosui Duanmu** (University of Toronto)   *
Nonstandard Analysis and its Application to Markov Processes

13:25-13:50   **Jalal Khamse Ashari** (Carleton University)   *
Multi-resource fair allocation/scheduling for heterogeneous servers