Workshop III: Mean Field Games and Applications

Monday May 4, 2020

8:20 *SESSION CHAIR: DIOGO AGUIAR GOMES (KAUST)*

8:20–8:30 *Welcome & Opening Remarks: Dean Miguel García-Garibay (Dean of Physical Sciences, UCLA) and Dima Shlyakhtenko (Director, IPAM)*

8:30–9:20 **Alpár Mészáros** (University of Durham)
Global well-posedness of master equations for deterministic displacement convex potential mean field games

9:30–9:45 *Break*

9:45–10:35 **Paola Mannucci** (Università di Padova)
Deterministics Mean Field Games with control on the acceleration.

10:45–11:00 *Break*

11:00–11:50 *Lightning Poster Presentations by Justin Johnson Kakeu (University of Prince Edward Island)*

12:00–1:00 *Lunch (on your own)*

1:00–1:50 **Sebastian Jaimungal** (University of Toronto)
A Mean Field Game Approach to Equilibrium Pricing, Optimal Generation, and Trading in Solar Renewable Energy Certificate Markets

2:00–2:15 *Break*

2:15–3:05 **Jianfeng Zhang** (University of Southern California (USC))
Set Values for Mean Field Games without Monotonicity Condition

Tuesday May 5, 2020

8:30 *SESSION CHAIR: WILFRID GANGBO (UCLA)*

8:30–9:20 **Francisco Silva Álvarez** (Université de Limoges)
On the approximation of first order mean field games

9:30–9:45 *Break*

9:45–10:35 **Peter Caines** (McGill University)
Graphon Mean Field Games: A Dynamical Equilibrium Theory for Large Populations on Large Scale Networks

10:45–11:00 *Break*

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11:00–11:50 **David Ambrose** (Drexel University)
Existence theory for nonseparable mean field games in Sobolev spaces

12:00–1:00 *Lunch (on your own)*

1:00–1:50 **Hung Tran** (University of Wisconsin-Madison)
Coagulation-Fragmentation equations with multiplicative coagulation kernel and constant fragmentation kernel

Wednesday May 6, 2020

8:30 *SESSION CHAIR: CHENCHEN MOU (UCLA)*

8:30–9:20 **Martino Bardi** (Università di Padova)
Convergence of some Mean Field Games to aggregation and flocking models.

9:30–9:45 *Break*

9:45–10:35 **Rita Ferreira** (King Abdullah Univ. of Science and Technology (KAUST))
Homogenization of a stationary mean-field game via two-scale convergence

10:45–11:00 *Break*

11:00–11:50 **Tamer Basar** (University of Illinois at Urbana-Champaign)
A General Theory for Discrete-Time Mean-Field Games

12:00–1:00 *Lunch (on your own)*

1:00–1:50 **Guilherme Mazanti** (CentraleSupélec)
Second order minimal-time mean field games

2:00–2:15 *Break*

2:15–3:05 **Minyi Huang** (Carleton University)
Mean field Stackelberg Games: State Feedback Equilibrium

Thursday May 7, 2020

8:30 *SESSION CHAIR: ALPÁR MÉSZÁROS (UNIVERSITY OF DURHAM)*

8:30–9:20 **Marco Cirant** (Università di Padova)
Maximal regularity for stationary Hamilton-Jacobi equations

9:30–9:45 *Break*

9:45–10:35 **Alessandro Goffi** (Università di Padova)
Some new regularity results for viscous Hamilton-Jacobi equations with unbounded right-hand side

10:45–11:00 *Break*

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11:00–11:50 **Annalisa Cesaroni** (Università di Padova)
Periodic equilibria for a first order Mean Field Game

12:00–1:00 *Lunch (on your own)*

1:00–1:50 **Roland Malhame** (École Polytechnique de Montréal)
Mean Field Games in Energy Systems Applications

2:00–2:15 *Break*

2:15–3:05 **Levon Nurbekyan** (University of California, Los Angeles (UCLA))
Computational methods for nonlocal mean field games with applications

Friday May 8, 2020

8:30 *SESSION CHAIR: RYAN HYND (UNIVERSITY OF PENNSYLVANIA)*

8:30–9:20 **Elisabetta Carlini** (Sapienza Università di Roma)
A large time step scheme for systems of Fokker-Planck equations and applications to Mean Field Games

9:30–9:45 *Break*

9:45–10:35 **Chenchen Mou** (University of California, Los Angeles (UCLA))
Weak solutions of second order master equations for mean field games with common noise.

10:45–11:00 *Break*

11:00–11:50 **Luciano Campi** (London School of Economics and Political Science)
Correlated equilibria in mean-field games

12:00–1:00 *Lunch (on your own)*

1:00–1:50 **Andrzej Swiech** (Georgia Institute of Technology)
Finite dimensional approximations of Hamilton-Jacobi-Bellman equations in spaces of probability measures.

2:00–2:15 *Break*

2:15–3:05 **Hamidou Tembine** (New York University)
Mean-Field-Type Games