# WMI

# From mean-field control to weak KAM dynamics

## Programme (All lectures to be held in Room B3.02)

### Monday (Bank holiday) 7th May

| | | |
|---|---|---|
| 14.30-15.00 | Registration packs will be available in the Mathematics Common Room | |
| 15.00-15.50 | **Patrick Bernard** (Paris-Dauphine) | *Mather theory and applications pt1* |
| 16.00-16.50 | **Diogo A. Gomes** (Instituto Superior Tecnico) | *An introduction to mean-field games: the finite state space case pt1* |

### Tuesday 8th May

| | | |
|---|---|---|
| 09.00-09.50 | **Diogo A. Gomes** (Instituto Superior Tecnico) | *An introduction to mean-field games: the finite state space case pt2* |
| 10.00-10.30 | Tea & coffee in the Mathematics Institute Common Room | |
| 10.30-11.20 | **Patrick Bernard** (Paris-Dauphine) | *Mather theory and applications pt2* |
| 11.30-12.20 | **Peter Caines** (McGill University) | *ε-Nash mean field games pt1* |
| 12.45-14.00 | Lunch in the Mathematics Institute Common Room | |
| 14.30-15.20 | **Patrick Bernard** (Paris-Dauphine) | *Mather theory and applications pt3* |
| 15.30-16.20 | **Diogo A. Gomes** (Instituto Superior Tecnico) | *An introduction to mean-field games: the finite state space case pt3* |
| 17.30-19.30 | Drinks & buffet & Poster Session in the Mathematics Institute Common Room | |

### Wednesday 9th May

| | | |
|---|---|---|
| 09.30-10. 20 | **Peter Caines** (McGill University) | *ε-Nash mean field games pt2* |
| 10.00-10.30 | Tea & coffee in the Mathematics Institute Common Room | |
| 10.30-11.20 | **Bruno Gaujal** (INRIA) | *Mean field for Markov decision processes: from discrete to continuous optimization pt1* |
| 11.30-12.20 | **Peter Caines** (McGill University) | *ε-Nash mean field games pt3* |
| 12.45-14.00 | Lunch in the Mathematics Institute Common Room | |
| 14.30-17.30 | Contributed talks: | 14:30 **G. Ostrovski** *Arnold diffusion in fictitious play* |
| | | 15:30 **M. Huang** *Random mean field approximation in LQG games with mixed players* |
| | | 16:30 **J. L. Wu** *On optimal control of stochastic differential equations associated with Levy generators* |
| 17.30-19.30 | Drinks & dinner in the Mathematics Institute Common Room | |

### Thursday 10th May

| | | |
|---|---|---|
| 09.00-09.50 | **Bruno Gaujal** (INRIA) | *Mean field for Markov decision processes: from discrete to continuous optimization pt2* |
| 10.00-10.30 | Tea & coffee in the Mathematics Institute Common Room | |
| 10.30-11.20 | **Bruno Gaujal** (INRIA) | *Mean field for Markov decision processes: from discrete to continuous optimization pt3* |
| 11:30 | Closure | |

THE UNIVERSITY OF WARWICK