# HJ2016 "Hamilton-Jacobi Equations: new trends and applications" Programme

Monday 30 May 2016: Amphi ESIR, University Rennes 1

09:30-10:30: Welcome

10:30–11:15: **Pierre-Louis Lions** (College de France) *TBA* 

11:15–11:45: Coffee break

11:45 - 12:30: **Hitoshi Ishii** (Waseda University) The vanishing discount problem and generalized Mather measures.

12:30–14:00: Buffet Lunch (Club des Professeurs, University Rennes 1)

14:00–14:45: **Andrea Davini** (Universita "La Sapienza" di Roma) Convergence of the solutions in the ergodic approximation of the HJ equation

14:55–15:40: Maxime Zavidovique (Université Pierre et Marie Curie) Aubry Mather theory for weakly coupled systems of Hamilton-Jacobi equations

15:50–16:35: **Guy Barles** (Université François-Rabelais Tours) Has HJnet brought something for the understanding of Hamilton-Jacobi Equations with discontinuities?

17:00–19:00: Oyster degustation (Cafétéria INSA)

## Tuesday 31 May 2016: Amphi GCU, INSA Rennes

09:00–09:45: **Shigeaki Koike** (Tohoku University) Fully nonlinear uniformly elliptic/parabolic PDE with unbounded ingredients

09:45-10:30: Coffee break

10:30–11:15: **Erwin Topp Paredes** (Universidad de Santiago de Chile) *Solvability of Fractional Dirichlet Problems with Supercritical Gradient Terms* 

11:25–12:10: Vinh Duc Nguyen (Cardiff University) A new way to get the Lipschitz regularity results for nonlinear strictly elliptic equations and some applications

12:10–13:45: Buffet lunch (Restaurant Campanile)

13:45–14:30: **Espen Jakobsen** (Norwegian University of Science and Technology) "Optimal L1" theory for 2nd order HJB equations, duality, and anisotropic quasilinear degenerate parabolic equations

14:40–15:25: Giulio Galise (Universita degli studi di Salerno) A junction condition by specified homogenization and application to traffic lights

15:35 - 16:20: Claudio Marchi (Universita degli studi di Padova) Homogenization of a mean field game system in the small noise limit

16:30–18:00: Poster session & wine (Cafétéria INSA)

#### Wednesday 1 June 2016: Amphi GCU, INSA Rennes

09:00–09:45: Yoshikazu Giga (The University of Tokyo) On growth speed of a birth-spread model for two-dimensional nucleation on a crystal surface

09:45–10:15: Coffee break

10:15–11:00 : Adina Ciomaga (Université Paris-Diderot) Segmentation of molecular images acquired by STM

11:00–11:45: **Alessio Porretta** (Universita di Roma Tor Vergata) Weak solutions of mean field games systems

11:45–13:00: Lunch (Restaurant Campanile)

13:00–19:00: Excursion at Mont Saint-Michel (Bus departure from INSA Rennes at 13:00, Return downtown Rennes at 19:00)

# Thursday 2 June 2016: Amphi GCU, INSA Rennes

09:00–09:45: Martino Bardi (Universita degli studi di Padova) On some degenerate elliptic Hamilton-Jacobi-Bellman equations

09:45–10:30: Coffee break

10:30–11:15: **Sepideh Mirrahimi** (Université Paul Sabatier Toulouse) Uniqueness in a class of Hamilton-Jacobi equations with constraints

11:25–12:10: **Cristopher Hermosilla** (Louisiana State University) *Discontinuous solutions of Hamilton-Jacobi-Bellman equations on networks* 

12:10–13:45: Lunch (Restaurant Campanile)

13:45–14:30: Christian Claudel (The University of Texas at Austin) Network traffic state estimation using Hamilton-Jacobi equations

14:40–15:25: Nao Hamamuki (Hokkaido University) A discrete isoperimetric inequality on lattices

15:25–16:10: Coffee break

16:10–16:55: Panagiotis Souganidis (The University of Chicago) TBA

20:00 : Social dinner (Restaurant L'Amiral, place de Bretagne)

### Friday 3 June 2016: Amphi GCU, INSA Rennes

09:00–09:45: **Rinaldo Colombo** (Universita degli studi di Brescia) Controlling Structured Population Models

09:45-10:30: Coffee break

10:30–11:15 : **Jérémy Firozaly** (École Nationale des Ponts et Chaussées) *Homogenization of a 1D pursuit law with delay* 

11:25–12:10: **Pierre Cardaliaguet** (Université Paris-Dauphine) On the long time behavior of the mean field game system

12:10–13:30: Lunch (Restaurant Campanile)