

Program Outline

Date: July 30–August 3, 2012
Venue: Room 3-309, Faculty of Science Building #3,
Hokkaido University, Sapporo, Japan
Organizers: L. Ambrosio (Pisa), Y. Giga (Tokyo),
P. Rybka (Warsaw), Y. Tonegawa (Sapporo)

Course Lecturers and Main Themes:

Luigi Ambrosio:

Gradient flows in metric spaces and in the space of probability measures

Yann Brenier:

Optimal Transport

Robert Jerrard:

Dynamics of vortices and other topological defects in nonlinear field theories

July 30 (Mon.)

10:00-10:50 Luigi Ambrosio (Scuola Normale Superiore)
(Lecture I) Metric formulations of gradient flows:
Energy Dissipation Inequalities and Evolution

11:10-12:00 Yann Brenier (Universite de Nice)
(Lecture I) Optimal transport of densities

14:00-14:50 Robert Jerrard (University of Toronto)
(Lecture I) Overview, and parabolic equations

15:10-16:10 Diego Pallara (Universita del Salento)
Bounded variation functions in Hilbert spaces and
related semigroups

July 31 (Tue.)

10:00-10:50 Luigi Ambrosio (Scuola Normale Superiore)
(Lecture II) Convergence of the Euler scheme and
existence results