

# NONLINEAR HYPERBOLIC PDEs, DISPERSIVE AND TRANSPORT EQUATIONS: ANALYSIS AND CONTROL

SISSA, Trieste – Week from May 16<sup>th</sup> to May 20<sup>th</sup>, 2011

## PROGRAM

The lectures and the talks will take place at the **SISSA building**, located in Via Borromea, 265, Trieste.

### Courses:

- **Jean-Michel Coron**: *Controllability and Stabilization: some cases where the nonlinearity is crucial.*
- **Irena Lasiecka**: *Long time behavior and their control in nonlinear evolutions.*
- **Roberto Triggiani**: *Hyperbolic and Schroedinger Equations on Multi-Dimensional Bounded Domains: Uniform Stabilization with Nonlinear Boundary Dissipation and Nonlinear Inverse Problems through a Single Boundary Measurement.*

### Seminars:

- **Andrei Agrachev** (SISSA-ISAS): *On the long-time behavior of dissipative mechanical systems.*
- **Paolo Antonelli** (University of Cambridge): *On existence of global weak solutions for a class of quantum fluids systems.*
- **Lorena Bociu** (University of Nebraska): *Nonlinear wave equations with interior and boundary supercritical sources.*
- **Helge Holden** (Norwegian University of Science and Technology): *On the nonlinear variational wave equation.*
- **Camille Laurent** (Ecole Polytechnique, France): *On stabilization and control for the critical Klein-Gordon equation on a 3-D compact manifold.*
- **Matthieu Leautaud** (Université Pierre et Marie Curie): *Controllability of a parabolic system with a diffusive interface.*
- **Julien Lequeurre** (Université Paul Sabatier): *Existence of strong solutions to fluid-structure systems.*
- **Khai T. Nguyen** (Università di Padova): *Lower compactness estimates for scalar balance laws.*
- **Vincent Perrollaz** (Université Pierre et Marie Curie): *Asymptotic stabilization of entropy solutions to scalar conservation laws through a closed feedback loop.*

	<b>Monday – 16 Room Cinema (no. 128-129) First floor</b>
<b>9:15 -- 9:50</b>	<b>Registration</b>
<b>9:50 -- 10:00</b>	<b>Opening</b>
<b>10:00 -- 10:50</b>	<b>Jean-Michel Coron</b>
<b>11:00 -- 11:20</b>	<b>Coffee Break</b>
<b>11:20 -- 12:10</b>	<b>Jean-Michel Coron</b>
<b>12:20 -- 15:00</b>	<b>Lunch Break</b>
<b>15:00 -- 15:30</b>	<b>Lorena Bociu</b>
<b>15:35 -- 16:25</b>	<b>Irena Lasiecka</b>
<b>16:35 -- 17:00</b>	<b>Coffee Break</b>
<b>17:00 -- 17:50</b>	<b>Irena Lasiecka</b>

	<b>Tuesday – 17 Room no. 004 Ground floor</b>	<b>Wednesday – 18 Room Cinema (no. 128-129) First floor</b>
<b>9:00 -- 9:50</b>	<b>Roberto Triggiani</b>	<b>Irena Lasiecka</b>
<b>10:00 -- 10:20</b>	<b>Coffee Break</b>	<b>Coffee Break</b>
<b>10:20 -- 11:10</b>	<b>Roberto Triggiani</b>	<b>Irena Lasiecka</b>
<b>11:20 -- 11:50</b>	<b>Vincent Perrollaz</b>	<b>Paolo Antonelli</b>
<b>11:55 -- 14:30</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14:30 -- 15:00</b>	<b>Khai T. Nguyen</b>	<b>Camille Laurent</b>
<b>15:05 -- 15:55</b>	<b>Jean-Michel Coron</b>	<b>Jean-Michel Coron</b>
<b>16:05 -- 16:30</b>	<b>Coffee Break</b>	<b>Coffee Break</b>
<b>16:30 -- 17:20</b>	<b>Jean-Michel Coron</b>	<b>Jean-Michel Coron</b>

	<b>Thursday – 19 Room Cinema (no. 128-129) First floor</b>
<b>9:00 – 9:50</b>	<b>Roberto Triggiani</b>
<b>10:00 – 10:20</b>	<b>Coffee Break</b>
<b>10:20 – 11:10</b>	<b>Roberto Triggiani</b>
<b>11:20 – 11:50</b>	<b>Matthieu Léautaud</b>
<b>11:55 – 14:30</b>	<b>Lunch Break</b>
<b>14:30 – 15:00</b>	<b>Julien Lequeur</b>
<b>15:05 – 15:55</b>	<b>Irena Lasiecka</b>
<b>16:05 – 16:30</b>	<b>Coffee Break</b>
<b>16:30 – 17:20</b>	<b>Irena Lasiecka</b>

	<b>Friday – 20 Room Cinema (no. 128-129) First floor</b>
<b>9:00 – 9:50</b>	<b>Helge Holden</b>
<b>9:55 – 10:45</b>	<b>Andrei Agrachev</b>
<b>10:50 – 11:15</b>	<b>Coffee Break</b>
<b>11:15 – 12:05</b>	<b>Roberto Triggiani</b>
<b>12:10 – 13:00</b>	<b>Roberto Triggiani</b>
<b>13:00 – 13:10</b>	<b>Closing</b>