Phase Space Analysis of Partial Differential Equations 2007

Certosa di Pontignano (Si)
October 10 - 13, 2007

Program

October 10

Morning session. Chairman Antonio Bove

9.00 - 9.40 **Giorgio Talenti (Firenze, Italy)**
   On complex-valued $2D$ eikonals

9.50 - 10.30 **David S. Tartakoff (Chicago, USA)**
   Gevrey hypoellipticity for non-subelliptic operators

10.35 - 11.15 *coffee break*

11.15 - 11.55 **Isabelle Gallagher (Paris 7, France)**
   Some examples of large, global solutions to the Navier-Stokes equations

12.05 - 12.45 **Fulvio Ricci (Scuola Normale Superiore, Italy)**
   Joint spectral multipliers in the Schwartz class for commuting differential operators on the Heisenberg group

Afternoon session. Chairman Peter Michor

15.00 - 15.40 **Claude Zuily (Paris 11, France)**
   Smoothing effect for Schrödinger equation with unbounded potentials on exterior domains

15.50 - 16.30 **Herbert Koch (Bonn, Germany)**
   Scattering for Kamdontsev Petviashvili II equation

16.35 - 17.15 *coffee break*

17.15 - 17.55 **Patrick Gérard (Paris 11, France)**
   On the compactness defect of the Strichartz estimate for the wave equation

18.05 - 18.45 **Michael Reissig (Freiberg, Germany)**
   The precise loss of regularity for weakly hyperbolic Cauchy problems

October 11

Morning session. Chairman M. K. Venkatesha Murthy

9.00 - 9.40 **Jean-Michel Bony (École Polytechnique, France)**
   Evolution equations and generalized Fourier integral operators

9.50 - 10.30 **Nils Dencker (Lund, Sweden)**
   Solvability and subellipticity for systems

10.35 - 11.15 *coffee break*

11.15 - 11.55 **Sergio Spagnolo (Pisa, Italy)**
Hyperbolic systems with symmetrizers of diagonal type

12.05 - 12.45 **Tatsuo Nishitani (Osaka, Japan)**
An example of non effectively hyperbolic Cauchy problem not Gevrey well posed for any lower order term

Afternoon session. Chairman Gabor Francsics

15.00 - 15.40 **Mariano Giaquinta (Scuola Normale Superiore, Italy)**
On mappings into manifolds of bounded total variation

15.50 - 16.30 **Nicholas Hanges (CUNY, USA)**
Hyperfunctions and (analytic) hypoellipticity

16.35 - 17.15 *coffee break*

17.15 - 17.55 **Enrico Jannelli (Bari, Italy)**
The hyperbolic symmetrizer - how to get rid of characteristic roots

18.05 - 18.45 **Jean-Yves Chemin (Paris 6, France)**
Hardy inequalities and applications

October 12

Morning session. Chairman Jean Vaillant

9.00 - 9.40 **Guy Métivier (Bordeaux 1, France)**
Instabilities in Zakharov equations

9.50 - 10.30 **Jorge Hounie (São Carlos, Brazil)**
Boundary values of planar vector fields and Hardy spaces

10.35 - 11.15 *coffee break*

11.15 - 11.55 **Paulo D. Cordaro (São Paulo, Brazil)**
Gevrey solvability in differential complexes associated to locally integrable structures

12.05 - 12.45 **Serge Alinhac (Paris 11, France)**
Energy inequalities and general relativity

Afternoon session. Chairman Yusaku Hamada

15.00 - 15.40 **Shiferaw Berhanu (Temple University, USA)**
On analyticity of solutions of first-order nonlinear PDE

15.50 - 16.30 **Kunihiko Kajitani (Tokai University, Japan)**
Time global solutions to the Cauchy problem for perturbed Kirchhoff equations

16.35 - 17.15 *coffee break*

17.15 - 17.55 **Gilles Lebeau (Nice, France)**
Analysis of the Metropolis algorithm

October 13

9.00 - 9.40 **Vesselin Petkov (Bordeaux 1, France)**
Singularities of the scattering kernel related to trapping rays

9.50 - 10.30 **Luigi Ambrosio (Scuola Normale Superiore, Italy)**
Differentiability and rectifiability in Carnot groups

10.35 - 11.15 *coffee break*

11.15 - 11.55 **François Treves (Rutgers University, USA)**
A class of multidimensional integrodifferential equations with infinitely many constants of motion