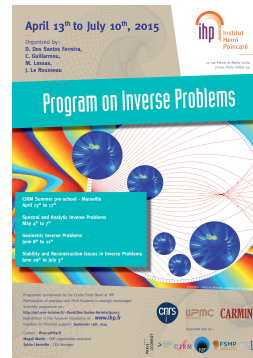


« Program on Inverse Problems »
Paris, April 13th – July 10th, 2015

Conference « Stability and Reconstruction Issues in Inverse Problems »
Paris, June 29th – July 3rd, 2015
Amphitheater Hermite



ORGANIZERS

Camille Laurent (CNRS, Université Pierre et Marie Curie), **Jérôme Le Rousseau** (Université d'Orléans), **Éric Soccorsi** (Université Aix-Marseille)

SCIENTIFIC COMMITTEE

Maarten de Hoop (Purdue University), **Alexandre Jollivet** (Université de Lille), **Adrian Nachman** (University of Toronto), **Alberto Ruiz** (Universidad Autónoma de Madrid), **Samuli Siltanen** (University of Helsinki)

SPEAKERS

Guillaume Bal (Columbia University)

Mourad Bellassoued (Faculté des Sciences de Bizerte)

Ibtissem Ben Aicha (Faculté des Sciences de Bizerte)

Elena Beretta (Politecnico di Milano)

Liliana Borcea (University of Michigan)

Mourad Choulli (Université de Lorraine)

Maya de Buhan (Université Paris Descartes)

Michele di Cristo (Politecnico di Milano)

Romina Gaburro (University of Limerick)

Patricia Gaitan (Université Aix-Marseille)

Houssein Haddar (INRIA, École polytechnique)

Hyeonbae Kang (Inha University)

Gen Nakamura (Inha University)

Roman Novikov (École polytechnique)

Axel Osses (Universidad de Chile)

Karim Ramdani (INRIA, Université de Lorraine)

Luca Rondi (Università degli Studi di Trieste)

Matteo Santacesaria (University of Helsinki)

Carola-Bibiane Schönlieb (University of Cambridge)

Fauzi Triki (Université Joseph Fourier)

Jenn-Nan Wang (National Taiwan University)

Masahiro Yamamoto (University of Tokyo)

PROGRAM

Monday June 29th

| | | |
|---------------------|--------------------------|---|
| 09.00 am – 09.30 am | Registration | IHP Ground floor |
| 09.30 am – 10.30 am | Liliana Borcea | Imaging with waves in complex environments. |
| 10.30 am – 11.00 am | Coffee break | IHP Ground floor |
| 11.00 am – 12.00 pm | Masahiro Yamamoto | Carleman estimates and inverse problems for the Navier-Stokes equations and related equations. |
| 12.00 pm – 02.00 pm | Lunch break | |
| 02.00 pm – 03.00 pm | Housseem Haddar | A Sampling Method for Monitoring Defects in Unknown Backgrounds. |
| 03.00 pm – 04.00 pm | Hyeonbae Kang | Recent progress on the spectral theory of Neumann-Poincare operator and plasmon resonance. CANCELLED |
| 04.00 pm – 04.30 pm | Coffee break | IHP Ground floor |
| 04.30 pm – 05.30 pm | Mourad Choulli | On the determination of an initial heat distribution from a single measurement. |

Tuesday June 30th

| | | |
|-----------------------|------------------------|--|
| **09.30 am – 10.30 am | Gen Nakamura | Reconstruction methods using singular solutions. |
| 10.30 am – 11.00 am | Coffee break | IHP Ground floor |
| 11.00 am – 12.00 pm | Patricia Gaitan | Probing for inclusions for heat conductive bodies. Time independent and time dependent cases. CANCELLED |
| 12.00 pm – 02.00 pm | Lunch break | |
| 02.00 pm – 03.00 pm | Roman Novikov | Inverse problems of quantum and acoustic scattering at fixed frequency. |
| 03.00 pm – 04.00 pm | Luca Rondi | Approximation and computation for the inverse photolithography problem. |
| 04.00 pm – 04.30 pm | Coffee break | IHP Ground floor |
| 04.30 pm – 05.30 pm | Faouzi Triki | Stability estimates for multi-frequency inverse scattering problems. |

Wednesday July 1st

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|---------------------|----------------------|--|
| 09.00 am – 10.00 am | Elena Beretta | Quantitative Lipschitz stability estimates for some inverse boundary value problems arising from seismology. |
| 10.00 am – 10.30 am | Coffee break | IHP Ground floor |
| 10.30 am – 11.30 pm | Axel Osses | Part 1: Stability of a semi discrete wave equation. Part 2: The identification problem in SPECT tomography. |
| 11.30 am – 12.30 pm | Jenn-Nan Wang | Stability estimates for some inverse boundary value problems. |
| 06.30 pm | Cocktail | Pierre and Marie Curie University Zamansky Tower – 24 th floor 4 place Jussieu – 75005 Paris Subway line 7 – Station : Jussieu Note : bring a copy of your ID card or Passport |

Thursday July 2nd

| | | |
|---------------------|----------------------------|--|
| 09.30 am – 10.30 am | Karim Ramdani | Reconstructing a two dimensional cavity from boundary measurements. |
| 10.30 am – 11.00 am | Coffee break | IHP Ground floor |
| 11.00 am – 12.00 pm | Maya de Buhan | Convergent algorithm based on Carleman estimates for the recovery of a potential in the wave equation. |
| 12.00 pm – 02.00 pm | Lunch break | |
| 02.00 pm – 03.00 pm | Matteo Santacesaria | New numerical results for the Gel'fand-Calderón problem. |
| 03.00 pm – 04.00 pm | Ibtissem Ben Aicha | Stability estimate for hyperbolic inverse problem with time dependent coefficient. |
| 04.00 pm – 04.30 pm | Coffee break | IHP Ground floor |
| 04.30 pm – 05.30 pm | Michele di Cristo | Size Estimates in Inverse Problems. |

Friday July 3rd

| | | |
|---------------------|---------------------------------|---|
| 09.00 am – 10.00 am | Carola-Bibiane Schönlieb | Learning variational regularization models for image denoising by PDE constrained optimization. |
| 10.00 am – 10.30 am | Coffee break | IHP Ground floor |
| 10.30 am – 11.30 pm | Mourad Bellassoued | Stable determination of coefficient in the dynamical Schrödinger equation in a magnetic field. |
| 11.30 am – 12.30 pm | Romina Gaburro | Lipschitz stability for the inverse conductivity problem for piece-wise linear conductivities. |
| 12.30 pm – 02.00 pm | Lunch break | |
| 02.00 pm – 03.00 pm | Guillaume Bal | Some Mathematical Problems in Elastography. |
| 03.00 pm – 03.30 pm | Coffee break | IHP Ground floor |