

« Program on Inverse Problems »

Paris, April 13th– July 10rd, 2015

Conference « Geometric Inverse Problems » Paris, June $8^{th} - 12^{th}$, 2015

Amphitheater Hermite



ORGANIZERS Colin Guillarmou (École normale supérieure), **Alexandre Jollivet** (Université de Lille), **Mikko Salo** (University of Jyväskylä)

SCIENTIFIC COMMITTEE

Matti Lassas (University of Helsinki), Yaroslav Kurylev (University College London), Gabriel Paternain (University of Cambridge), Todd Quinto (Tufts University)

SPEAKERS

Jan Boman (Stockholm University) Francis Chung (University of Michigan) Daniel Faraco (Universidad Autónoma de Madrid) Raluca Felea (Rochester Institute of Technology) Simon Gindikin (Rutgers University) Sean Holman (University of Manchester) Joonas Ilmavirta (University of Jyväskylä) Sergei Ivanov (Steklov Institute of Mathematics) Katya Krupchyk (University of California, Irvine) François Monard (University of Washington) Linh Nguyen (University of Idaho) Lauri Oksanen (University College London) Gabriel Paternain (University of Cambridge) Vladimir Sharafutdinov (Novosibirsk State University) Plamen Stefanov (Purdue University) Gunther Uhlmann (University of Washington) Haomin Wen (University of Pennsylvania) Yang Yang (Purdue University) Hai Zhang (École normale supérieure) Hanming Zhou (University of Washington) Maciej Zworski (University of California, Berkeley)





PROGRAM

Monday June 8 th				
09.00 am - 09.30 am 09.30 am - 10.30 am 10.30 am - 11.00 am 11.00 am - 12.00 pm	Registration Gunther Uhlmann Coffee break Haomin Wen	IHP Ground floor Boundary Rigidity and Lens Rigidity : Progress and Challenges. IHP Ground floor Lens rigidity and scattering rigidity in two dimensions.		
12.00 pm – 02.00 pm	Lunch break			
02.00 pm - 03.00 pm 03.00 pm - 04.00 pm 04.00 pm - 04.30 pm 04.30 pm - 05.30 pm	Plamen Stefanov Sean Holman Coffee break Francis Chung	The geodesic ray transform on Riemannian surfaces with conjugate points. On the stability of the geodesic ray transform. IHP Ground floor Inverse Problems for the Hodge Laplacian.		
Tuesday June 9 th				
09.00 am - 10.00 am 10.00 am - 10.30 am 10.30 am - 11.30 am 11.30 am - 12.30 pm	Sergei Ivanov Coffee break François Monard Hanming Zhou	Perturbations of boundary distance functions and scattering maps. IHP Ground floor Explicit inversions of ray transforms over simple surfaces. Invariant distributions and tensor tomography for Gaussian thermostats.		
12.30 pm – 02.30 pm	Lunch break			
02.30 pm - 03.30 pm 03.30 pm - 04.00 pm 04.00 pm - 05.00 pm	Gabriel Paternain Coffee break Joonas Ilmavirta	Recovering a connection from parallel transport along geodesics. IHP Ground floor Radon transforms on groups.		
Wednesday July 10 th				
09.00 am - 10.00 am 10.00 am - 10.30 am 10.30 am - 11.30 am 11.30 am - 12.30 pm	Vladimir Sharafutdinov Coffee break Lauri Oksanen Yang Yang	Killing tensor fields on the 2-torus. IHP Ground floor The X-ray transform restricted on light rays and cosmic microwave background. A Traveltime Inverse Problem in Spacetime.		
12.30 pm – 02.30 pm	Lunch break			
02.30 pm - 03.30 pm 03.30 pm - 04.00 pm 04.00 pm - 05.00 pm	Jan Boman Coffee break Hai Zhang	Tomographic region-of-interest reconstruction from incomplete data. IHP Ground floor Stability of recovering wave-speed from boundary measurements.		
06.30 pm	Cocktail Reception	IHP Ground floor		

Thursday June 11th

10.30 am - 11.30 am

09.00 am - 10.00 am	Simon Gindikin	Spectral decomposition of some ultrahyperbolic equations.
10.00 am - 10.30 am	Coffee break	IHP Ground floor
10.30 am - 11.30 am	Linh Nguyen	On the streak artifacts in limited angle computed X-ray tomography.
11.30 am - 12.30 pm	Katya Krupchyk	L^p bounds on eigenfunctions for operators with double characteristics.
12.30 pm – 02.30 pm	Lunch break	
02.30 pm - 03.30 pm	Raluca Felea	Fourier Integral Operators with cusp singularities.
03.30 pm - 04.00 pm	Coffee break	IHP Ground floor
04.00 pm - 05.00 pm	TBA	TBA.
Friday June 12 th		
09.00 am – 10.00 am	Maciej Zworski	Heat traces and inverse problems for resonances.
10.00 am – 10.30 am	Coffee break	IHP Ground floor

Abstracts are available on the web site of the trimester « Program on Inverse Problems » : http://iecl.univ-lorraine.fr/~David.Dos-Santos-

TBA.

Ferreira/ipconferences/ipconf.html

Daniel Faraco