

« CONFORMAL AND KÄHLER GEOMETRY » Paris, September 10<sup>th</sup> – December 14<sup>th</sup>, 2012  
**Conference : « Geometric PDEs »**  
**November 5<sup>th</sup> – 9<sup>th</sup>, 2012**  
**Amphithéâtre Hermite**



**ORGANIZERS**

**Matthew GURSKY** (Notre Dame University, USA), **Emmanuel HEBEY** (Université de Cergy Pontoise, France), **Franck PACARD** (École Polytechnique, France), **Jeff VIACLOVSKY** (University of Wisconsin, USA)

**SPEAKERS**

**Antonio Ache** (University of Wisconsin, USA)  
**Kazuo Akutagawa** (Tohoku University, Japan)  
**Fabrice Bethuel** (Université Pierre et Marie Curie, France)  
**Fernando Coda-Marquez** (IMPA, Brazil)  
**Camillo De Lellis** (Universität Zurich, Switzerland)  
**Olivier Druet** (ENS-Lyon, France)  
**José A. Galvez** (Universidad de Grenada, Spain)  
**Maria Del Mar Gonzalez** (Universitat Politècnica de Catalunya)  
**Pengfei Guan** (McGill, University, Canada)  
**Ernst Kuwert** (Universität Freiburg, Germany)  
**Yanyan Li** (Rutgers University, USA)

**Andrea Malchiodi** (SISSA, Italy)  
**Carlo Mantegazza** (SNS Pisa, Italy)  
**Lorenzo Mazziere** (SNS Pisa, Italy)  
**Pablo Mira** (Universidad Politécnica de Cartagena, Spain)  
**Jimmy Petean** (Centro de Investigación en Matemáticas, Mexico)  
**Jie Qing** (University of California, Santa Cruz, USA)  
**Fredric Robert** (Université Henri Poincaré, France)  
**László Szekelyhidi** (Universität Leipzig, Germany)  
**Neil Trudinger** (Australian National University, Australia)  
**Guofang Wang** (Universität Freiburg, Germany)  
**Jun-cheng Wei** (Chinese University of Hong Kong, Hong-Kong)



## PROGRAM

### Monday November 5<sup>th</sup>

#### 01.00 pm – 02.00 pm Registration and Welcome Coffee – Ground floor

02.00 pm – 03.00 pm	<b>Fernando Coda-Marquez</b>	Minimal surfaces and conformally invariant variational problems.
03.15 pm – 04.15 pm	<b>Pablo Mira</b>	The geometric Neumann problem for the Liouville equation.
04.15 pm – 04.45 pm	Coffee break	Ground floor
04.45 pm – 05.45 pm	<b>Fabrice Bethuel</b>	The Jacobian, the square root and the set $\infty$ .

### Tuesday November 6<sup>th</sup>

09.30 am – 10.30 am	<b>Carlo Mantegazza</b>	A density function for the Ricci flow.
10.30 am – 11.00 am	Coffee break	Ground floor
11.00 am – 12.00 pm	<b>Olivier Druet</b>	Conformal eigenvalues on the sphere.
12.00 pm – 02.00 pm	Lunch	
02.00 pm – 03.00 pm	<b>Jimmy Petean</b>	Solutions of the Yamabe equation on Riemannian products of round spheres.
03.00 pm – 03.30 pm	Coffee break	Ground floor
03.30 pm – 04.30 pm	<b>Kazuo Akutagawa</b>	The Yamabe problem on manifolds with conic singularities.
04.45 pm – 05.45 pm	<b>Fredric Robert</b>	Sign-changing blow-up for scalar curvature type equations.

### Wednesday November 7<sup>th</sup>

09.30 am – 10.30 am	<b>Maria Del Mar Gonzalez</b>	Some constructions for the fractional Laplacian on manifolds.
10.30 am – 11.00 am	Coffee break	Ground floor
11.00 am – 12.00 pm	<b>László Székelyhidi</b>	Isometric embeddings and turbulent energy cascades.
12.00 pm – 02.00 pm	Lunch	
02.00 pm – 03.00 pm	<b>Pengfei Guan</b>	Soliton and uniform convergence of the normalized Gauss Curvature flow.
03.00 pm – 03.30 pm	Coffee break	Ground floor

03.30 pm – 04.30 pm

**Jun-cheng Wei**

On  $SU(N+1)$  Toda System: Classification and Applications.

04.45 pm – 05.45 pm

**Andrea Malchiodi**

Improved geometric inequalities via angular moments.

**07.00 pm – 09.30 pm**

**Conference reception dedicated to the memory of Professor Thierry Aubin**

Pierre and Marie Curie University (UPMC)

Zamensky Tower – 24<sup>th</sup> floor

4 place Jussieu – Paris

Subway line 7 - Station : Jussieu

Note : bring your ID card

### Thursday November 8<sup>th</sup>

09.30 am – 10.30 am

**José A. Gálvez**

Classification of the solutions to elliptic Monge-Ampère equations in a punctured disc.

10.30 am – 11.00 am

Coffee break

Ground floor

11.00 am – 12.00 pm

**Neil Trudinger**

Weak continuity of nonlinear operators.

12.00 pm – 02.00 pm

Lunch

02.00 pm – 03.00 pm

**Ernst Kuwert**

Existence of immersed spheres minimizing Willmore functionals.

03.00 pm – 03.30 pm

Coffee break

Ground floor

03.30 pm – 04.30 pm

**Camillo De Lellis**

Regularity theory for area-minimizing currents.

04.45 pm – 05.45 pm

**Jie Qing**

Hypersurfaces in hyperbolic space and conformal metrics on domains in sphere.

### Friday November 9<sup>th</sup>

09.00 am – 10.00 am

**Guofang Wang**

A new mass for asymptotic flat manifolds.

10.00 am – 10.30 am

Coffee break

Ground floor

10.30 am – 11.30 pm

**Yanyan Li**

Some analytic aspects of conformally invariant fully nonlinear equations.

11.30 pm – 01.30 pm

Lunch

01.30 pm – 02.30 pm

**Lorenzo Mazziéri**

Self-similar solutions to Ricci-type flows.

02.45 pm – 03.45 pm

**Antonio Ache**

On the uniqueness of asymptotic limits of the Ricci flow.