

Laura Desideri

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French citizenship
Born on July 1st, 1982 in Nice (France)

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Education

- 2005–2009 **PhD** at Paris VII–Denis Diderot University, under the supervision of Frédéric Hélein : *Problème de Plateau, équations fuchsienues et problème de Riemann–Hilbert*.
Defense on December 2009, with examiners: P. Boalch, P. Collin, J. Dorfmeister, F. Hélein, F. Loray, F. Pacard and R. Souam.
Grade: highest level of distinction.
Available at <http://tel.archives-ouvertes.fr/tel-00452508/fr/>.
- 2004–2005 **Master’s degree** in Pure Mathematics “Analysis and Geometry” at Paris 6 University (with high honors).
Master thesis : *Equations of KdV types and loop groups*, under the supervision of Frédéric Hélein.
- 2003–2004 **Maîtrise** in Mathematics at Paris VII–Denis Diderot University (with high honors).
- 2002–2003 **Licence** in Mathematics (*Bachelor’s degree*) at Aix–Marseille I University (with high honors).
- 2000–2002 Classes préparatoires at Lycée Thiers (Marseille, France).
- 2000 Baccalauréat

Scientific positions

- 2010–2011 **Post-doc** at the Mathematical Institute of Tübingen University, in Prof. Dr. Franz Pedit’s team.
- 2009–2010 **ATER** (temporary teaching and research position) at Cergy-Pontoise University.
- 2008–2009 **ATER** at Paris VII–Denis Diderot University.
- 2005–2008 **PhD fellowship** at Paris VII–Denis Diderot University.
Monitorat (teaching assistant) at Paris XII University.

Research

Research areas

Minimal surfaces and Fuchsian systems. I have studied a forgotten method due to René Garnier to solve the Plateau problem in the case of a polygonal boundary curve in the three-dimensional Euclidean space. It relies on a solution of a Riemann–Hilbert problem, and on isomonodromic deformations of Fuchsian equations and Fuchsian systems. I extended Garnier’s result to maximal disks in Minkowski three-space.

Publications and preprints

- (with R. Jakob) *Immersed solutions of Plateau's problem for piecewise smooth boundary curves with small total curvature*.
Submitted, available at <http://arxiv.org/abs/1103.1340> ;
- *The Plateau problem for polygonal boundary curves in Minkowski 3-space*.
Submitted, available at <http://arxiv.org/abs/1012.3582>,
- *Problème de Plateau, équations fuchsienues et problème de Riemann–Hilbert* (French, 120 pages), to appear in *Mémoires de la Soc. Math. Fr.*
Available at <http://arxiv.org/abs/1003.0978>,
- *Minimal surfaces with polygonal boundary and Fuchsian equations* in *Travaux en cours en Physique-Mathématiques*, n°75, Hermann (2008). Proceeding of the conference "Integrable Systems and Quantum Field Theory at Peyresq".

Seminar and Workshop Talks

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| Apr. 11th, 11 | Differential Galois theory seminar, Lille University, France. |
| Mar, 17th, 11 | Dynamical systems seminar, Toulouse University, France. |
| Jan. 27th, 11 | Spectral theory and Geometry Seminar, Institut Fourier, Grenoble, France. |
| Nov. 23th, 10 | Differential Geometry Workshop, Tübingen University, Germany. |
| Nov. 12th, 10 | <i>3-Städte Geometrie Kolloquium</i> , Mannheim University, Germany. |
| Oct. 15th, 10 | DAGA Seminar, Padova University, Italy. |
| June 17th, 10 | Analysis Seminar, Duisburg-Essen University, Germany. |
| May 28th, 10 | Geometry Seminar, Tours University, France. |
| Mar. 30th, 10 | Fonctional Equations Seminar, Strasbourg University, France. |
| Mar. 18th, 10 | Analytic Geometry Seminar, Rennes I University, France. |
| Mar. 11th, 10 | Geometry and Analysis Seminar, Nice Sophia Antipolis University, France. |
| Mar. 8th, 10 | Ph.D students' seminar, Mathematics Departement, Cergy-Pontoise University, France. |
| Feb. 18th, 10 | Institut de Mathématiques de Jussieu Ph.D students' seminar, Paris. |
| Jan. 26th, 10 | Differential Geometry Workshop, Tübingen University, Germany. |
| Jan. 20th, 10 | <i>Journées Nancéiennes de Géométrie</i> , Henri Poincaré University, Nancy, France. |
| Oct. 19th, 09 | Geometry Seminar of the Institut de Mathématiques de Jussieu, Paris. |
| Feb. 23th, 09 | Geometry Seminar of the Institut de Mathématiques de Jussieu, Paris. |
| Apr. 8th, 08 | Geometry Seminar, Granada University, Spain. |
| Nov. 8th, 07 | <i>Systèmes intégrables, géométrie différentielle et théorie quantique des champs</i> workshop, Institut de Mathématiques de Jussieu, Paris. |
| Jan. 23th, 06
2005–2010 | Geometry Seminar of the Institut de Mathématiques de Jussieu, Paris.
I also participate to an informal weekly Ph.D students' workshop, where I have given many talks. |

Invited Talks in International Conferences

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| June 2006 | Colloque <i>Integrable Systems and Quantum Field Theory at Peyresq</i> , France. |
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Invitations in other Universities

Oct. 12–19, 10 Invited by Giovanni Morando at Padova University, Italy.
Jan. 25–29, 10 Invited by Franz Pedit at Tübingen University, Germany.
Apr. 7–11, 08 Invited by Antonio Ros at Granada University, Spain.

Other skills

Languages

- French: mother tongue.
- English: spoken fluently, written and read.
- German: spoken, written and read.

Computer experience: L^AT_EX, Maple, Matlab.