

# SARAH DIJOLS

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## POSTDOC POSITIONS AND EMPLOYMENT

From December 2018 Postdoctoral researcher at Yau Center, Beijing. Mentor : Bin Xu.  
From September to November 2018  
Assistant Professor at the University of Calgary.

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## EDUCATION

*From September 2014 to July 2018* PhD Thesis at the University of Aix-Marseille, under the supervision of Volker Heiermann.

*2013-2014*

Second year of Master, Fundamental Mathematics, Algebra and Geometry, UPMC, with honours

*Master Thesis title* : « L functions and Theta series » under the supervision of Jens Funke and Nicolas Bergeron.

*2011-2013*

Master Economics and Public Policy, PhD track, Sciences Po Paris and Ecole Polytechnique  
*Master Thesis title* : « Prices' dynamics : could covariances highlight the financialization of commodities? » under the supervision of Nicolas Coeurdacier. First year Master in Fundamental Mathematics, Strasbourg University and UPMC

*2010-2011*

Second year of Magistere in Mathematics, Strasbourg University

*2009-2010*

Visiting student at the University of British Columbia, Vancouver, Canada  
Bachelor at Sciences Po Paris

Bachelor in Mathematics, Pierre et Marie Curie University with highest honours

*2007-2009*

Double degree Sciences Po Paris and Pierre et Marie Curie University

*2007*

French Scientific Baccalaureat with highest honours ; Lycee Michelet, Montauban

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## RESEARCH

Subjects : Representations of reductive groups, automorphic forms.

*Symplectic models for unitary groups*, with Dipendra Prasad, TAMS 2018.

*Pre-prints : The generalized injectivity conjecture*

*Projection of root systems.*

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## TEACHING

Tutorial L1 (first year) Mathematics at UPMC, « CAP en fac » program, Octobre 2013-Juin 2014  
Tutorial, Third year engineering students, Fourier series and Fourier transforms, 27h (2014-2015 et 2015-2016), 36h (2016-2017)  
Tutorial First year Analysis 20h (2014-2015)  
Tutorial Third year, Algebra and Geometry, 10h (2014-2015), 36h (2015-2016)  
Tutorial First year Statistics for Earth and Environmental Sciences, 28h (2016-2017)  
Tutorial Third year Analysis, 36h (First term 2017)  
Lectures + Tutorial in Geometry, first year, Mathematics Applied to Social Sciences, 30h (First term 2017)  
Lectures + Tutorial in Geometry, first year Maths, 24h (First term 2017)

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## CONFERENCES, WORKSHOPS AND VISITS

Algebraic and Analytic aspects of Automorphic forms , ICTS Bangalore, March 2019  
On the Langlands Program : Endoscopy and Beyond, Singapore, 17 December to January 2019  
Women in Automorphic forms, Darmstadt, 4-6 September 2018  
Workshop on Representation Theory of Reductive Groups Over Local Fields, Weizmann Institute of Science, 4-16 June 2017  
Class field theory course, IISER Trivandrum, 22-25 December 2017  
Varanasi, TIMC AMS conference, 14-17 December 2017  
Relative Trace Formula, Periods, L-Functions and Harmonic Analysis, 16-27 May 2016  
Summer School on Reductive Groups, Franken-Akademie Schloß Schney, 27/07/2015-7/08/2015  
Automorphic forms, Shimura varieties, Galois representations and L-functions Workshop, 1-5 December 2014, MSRI, Berkeley  
*Academic visits*  
Max Planck Institute, Bonn, May-June 2018  
Tata Institute of Fundamental Research, 15th of December-15th of January 2017

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## TALKS

*The Generalized Injectivity conjecture*, presented at Max Planck Institute and Gottingen, June 2018; at University of Calgary, Tsinghua University (Winter 2018) and Bangalore ICTS (March 2019).  
Symplectic Models for unitary groups, Varanasi, December 2016  
— Seminar Algebra and Geometry, Versailles, May 2017  
— Seminar Poitiers, May 2017  
— Workshop on Representation Theory of Reductive Groups Over Local Fields, Weizmann Institute of Science, June 2017

Formule des traces relative appliquée à la démonstration d'un résultat de Waldspurger  
RGR Seminar, I2M Marseille, March 2016

Seminar on Trace formulae organized by Farrell Brumley at Jussieu :

— December 2015, Le côté spectral de la Formule des Traces pour GL<sub>2</sub>

— March 2016, Formule des traces relative et un résultat de Waldspurger

*Young seminars :*

Introduction à la théorie des représentations de groupes réductifs : représentations distinguées et modèles :

— Grenoble, February 2017

— Paris 7, May 2017

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## ADDITIONAL ACTIVITIES

### Popularization

Hippocampe program Spring 2015 (a one week introduction to mathematical research for High School students) ; participation in Piday Mucem in 2015 and « Fête de la Science » ; Maths games with High School students at CIRM library.

Participation in the PEPS-Egalité program (correspondence de Langlands) organized by Anne-Marie Aubert in April 2015. Poster presentation for a public of High School students.

Instructor in the workshop Math C2+ organized by the Polytechnique School to encourage High School female students from Aix-Marseille area to enroll in Sciences Studies.

### Service

PhD students representative at the AMU Mathematics-Computer Science Doctoral School, 2015-2018.

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## PROFESSIONAL EXPERIENCE

*July 2014* Counter advisor, Banque Populaire

*September-May 2013-2014* Teaching assistant for first year undergraduates in Mathematics, at the University Pierre et Marie Curie.

*April-August 2012* Internship at Centre d'Analyse Strategique (CAS) : Programming of a micro-simulation software for the socio-fiscal French system : (<http://www.openfisca.fr/>)

*July 2011* « Magistere » Internship at Neuromathcomp, INRIA.

*Summer 2010* Nurse assistant. Psychiatry Department, Montauban Hospital.

*Summer 2009* Internship at the Physics-Chemistry Lab : LCHMR, University Pierre et Marie Curie.

*July-August 2009* Help desk assistant, Manufacturers Department, AXA Assistance.

*August 2008* International volunteering on an environmental project, association SEEDS ICELAND.

*July 2008* Employee in a supermarket, Intermarche Lagos, Portugal.

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## EXTRACURRICULAR

### Languages

French : Mother tongue

English : Fluent

Spanish : Moderate

Mandarin : Learning

### IT Skills (to be refreshed)

Intermediate : Stata, R, GNU PLOT, OpenOffice, Excel

Advanced :  $\text{\LaTeX}$ , PYTHON

### Personal interests

Sports : Climbing, Mountaineering and Running

Mathematics, Literature, Theatre, Duduk

I have been a member of the Association Genepi which militates for « opening up » prisons. I was organizing cultural workshops for prisoners twice a month from January 2016 to June 2017. I left this association at the Autumn 2018.