

# Antoine CARADOT

University of Lyon, Camille Jordan Institute (ICJ), France

## Personal information

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Date and place of birth: 23-03-1988, Lyon, France.

Nationality: French, Swiss.

Address: 12 chemin du bois de Serres, 69570 Dardilly, France.

Email: caradot.antoine@gmail.com.

Phone: (+33)6 03 55 28 93.

Web page: <http://math.univ-lyon1.fr/~caradot/>

## Education

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**"Agrégation" national exam. Rank : 7.**

**Ph.D. in Mathematics, University of Lyon, 2017.**

Title: Singularity and Lie Theory.

Supervisor: Kenji IOHARA.

Completion and defense of dissertation on June, 14th 2017.

**Master of Science in Mathematics, University of Lyon, 2013.**

**Master of Science in Physics (fluid dynamics), University of Lyon, 2011.**

**Engineer School "Ecole des Mines de Nancy", Nancy, 2011.**

**Classe préparatoire PCSI-PC\*, Lycée du Parc, Lyon, 2008.**

## Research interests

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Lie algebras representations, foldings of root systems, quivers representations, deformations and resolutions of simple singularities, nilpotent orbits, symplectic reduction, orbit method.

## Publications

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Caradot A. - Root Systems and Quotients of Deformations of Simple Singularities. 2018. Arxiv preprint.

Caradot A. - Inhomogeneous Kleinian singularities and quivers. Banach Center Publications 113 (2017), 87-94.

Caradot A. - Singularity and Lie Theory. Ph.D Thesis. 2017. University of Lyon.

## Grant

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Japan Society for the Promotion of Science (JSPS) Summer Program 2015.

## Teaching experience

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- 2016-2017:**
- Exercise sessions, Algebra I, 1<sup>st</sup> semester, B.Sc first year, University of Lyon.
  - Exercise sessions, Algebra II, 2<sup>nd</sup> semester, B.Sc first year, University of Lyon.
- 2015-2016:**
- Exercise sessions, Fundamental algebra, B.Sc first year, University of Lyon.
  - Exercise sessions, Linear algebra, B.Sc first year, University of Lyon.
- 2014-2015:**
- Exercise sessions, Algebra and Geometry, B.Sc first year, University of Lyon.
  - Exercise sessions, Linear algebra, B.Sc first year, University of Lyon.
  - Oral examinations in maths, classes préparatoires first year, University of Lyon.

## Other employment

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### Teaching Assistant (A.T.E.R)

*2016-2017*

Conduct exercise sessions in algebra for undergraduates, elaborate exam subjects and grade papers.

### JSPS Fellow

*Summer 2015*

Two months research stay at Kobe University, Japan, under the supervision of Pr. Masa-Hiko Saito, attended and participated in the Graduate School of Science seminar.

## Language proficiency

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**French:** mother language.

**English:** fluent.

**German:** advanced.

**Japanese:** intermediate.

## Conferences and Workshops

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- Algebra Seminar of the ICJ, Lyon.
- Study group " Cluster algebras and applications ", Lyon.
- Study group " D-modules ", Lyon.
- Study group " Vector bundles, Buildings and Stability", Lyon.
- Sophus Lie Seminar, 27-29/06/13, ICJ, Lyon.
- " Algebra, Geometry, Logic " day, 16/01/14, Saint-Etienne.
- Workshop " Cohomological and geometric methods in representation theory",

20-22/01/14, Élie Cartan Institute (IECL), Nancy.

- Half semester " Algebraic Groups and Representations ", 02/06/14 to 11/07/14, Lyon.
- Kobe-Lyon Summer School on Quivers, 21-31/07/15, Kobe, Japan.
- Conference " Geometry of algebraic varieties ", 06-09/10/15, Humboldt University, Berlin, Germany.
- Opening days of the ANR GéoLie, 11-13/01/2016, Saint-Etienne.
- Workshop on Slodowy slices, 13-14/01/2016, Saint-Etienne.
- " Algebra, Geometry, Logic " day, 21/01/16, Saint-Etienne.
- Conference "Non-commutative crepant resolution, Ulrich module and generalization of the McKay correspondence ", 13-17/06/16, RIMS, Kyoto, Japan.
- Sophus Lie Seminar, 25/09/16 to 01/10/16, Będlewo, Poland.
- Conference " Arc Schemes and Singularities", 21-25/10/16, Rennes.
- Workshop "Modular Forms and Characters of Representations", 16-17/05/17, Lille.
- Summer School "Current Topics in the Theory of Algebraic Groups ", 03-07/07/17, Dijon.
- Conference "Lie Theory, Cohomology, and Geometry in Wildrose Country", 21-25/07/17, Edmonton, Canada.
- Conference "Transformation Groups 2017", 14-18/12/17, Moscow, Russia.
- Winter school "Riemann-Hilbert correspondences", 28/01/18 to 03/02/18, Padua, Italy.
- Conference "Geometry and Representation Theory of Algebraic Groups", 05-09/03/18, Bad Honnef, Germany.
- Ottawa-Lyon-Sao Paulo Workshop on Representation Theory, 03-07/07/18, Ottawa, Canada.

## Talks and Posters

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- Talk in the doctoral seminar of the Camille Jordan Institute.
- Poster for the JSPS Summer Program, 12/06/15, Sokendai, Japan.
- Talk during the Kobe-Lyon Summer School on Quivers, 27/07/15, Kobe, Japan.
- Talk during the opening days of the ANR GéoLie, 11-13/01/2016, Saint-Etienne, France.
- Poster for the conference "Non-commutative crepant resolution, Ulrich module and generalization of the McKay correspondence", 13-17/06/16, RIMS, Kyoto, Japan.
- Poster for the 50th Sophus Lie Seminar, 25/09/16 to 01/10/16, Będlewo, Poland.
- Talk during the Dijon - Basel Seminar, 11-12/09/17, Dijon, France.
- Talk during the 7th Swiss-French workshop in algebraic geometry, 8-12/01/18, Charmey, Switzerland.