

Owen Rouillé

Postdoctoral researcher
IMJ-PRG

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Current position

2022–2023 **Postdoctoral Research Position on limit sets representation**, supervised by *Antonin Guilloux*, in the Analyse Algébrique team of the Institut de Mathématiques de Jussieu-Paris Rive Gauche and Ouragan team of Inria Paris.

Education

2018–2022 **Ph.D. in Computer Science “Large scale computations of 3-manifold invariant”**, supervised by *Jean-Daniel Boissonnat* and *Clément Maria*, in the DataShape team at the Inria center Sophia Antipolis - Méditerranée.

2014–2018 **Magisterium of Computer Science and Telecommunications**, *École Normale Supérieure de Rennes*.
Research and innovation pathway.

2017–2018 **Second year of Master’s degree in Computer Science**, Université de Rennes 1.

2015–2016 **First year of Master’s degree in Computer Science**, Université de Rennes 1.

2014–2016 **Bachelor’s degree in Mathematics**, Université de Rennes 1.

2014–2015 **Bachelor’s degree in Computer Science**, Université de Rennes 1.

2011–2014 **Preparatory course**, *Lycée Kérichen*, Brest.
Mathematics and physics, option Computer Science.

2010–2011 **A level**, *Lycée Auguste Brizeux*, Quimper.
Option biology, speciality mathematics.

Internships

Feb-Jun 2018 **Inria Sophia Antipolis**, DataShape team, on non-metric spaces, with Jean-Daniel Boissonnat.

Jan-Jun 2017 **National Kapodistrian University of Athens**, $E\rho\Gamma A$ team, on neighbor search problems, with Ioannis Z. Emiris.

Sept-Dec 2016 **IST Austria**, the Chatterjee group, on the model checking of POMDPs, with Krishnendu Chatterjee.

Summer 2016 **RWTH Aachen University**, in the group Theory of Hybrid Systems, on polyhedra representation (contribution to the HyPro library), with Erika Ábrahám.

Summer 2015 **Inria Rennes**, in the DiverSe team, on graphs statistical analysis and software interactions on the Internet, with Benoit Baudry.

Programming Skills

Languages Python, C++, OCaml, Isabelle, C, java, Prolog, matlab, \LaTeX , bash ...
Contributions Regina (<https://regina-normal.github.io/>)

Data about hyperbolic volumes, canonical triangulations and values of Turaev–Viro invariants(<https://project.inria.fr/topal/fr/>), (partially available)

SnapPy (<https://snappy.math.uic.edu/index.html>), (planned)

Gudhi (<http://gudhi.gforge.inria.fr/>)

HyPro (<https://ths.rwth-aachen.de/research/projects/hypro/>)

Languages

French native

English fluent

Publication

- [1] Krishnendu Chatterjee, Adrià Elgüütt, Petr Novotný, Owen Rouillé: **Expectation Optimization with Probabilistic Guarantees in POMDPs with Discounted-sum Objectives** IJCAI-ECAI 2018
- [2] Clément Maria, Owen Rouillé: **Computation of Large Asymptotics of 3-Manifold Quantum Invariants** ALENEX21
- [3] Clément Maria, Owen Rouillé: **Computing complete hyperbolic structures on cusped 3-manifolds** ESA22

Teaching

2018–2020 **Teaching training for monitors**, *Université Côte d’Azur*, various modules including lectures design, presentation and student motivation.

2018–2020 **Teaching monitor**, *Université Côte d’Azur*, Nice, 64h per year.

- Year 2018-2019:
 - Object Oriented Conception, 3rd year of Bachelor’s degree in Computer Science, MIAGE section, 2×18h.
 - Databases (theory, design), 2nd year of Bachelor’s degree in Computer Science, 36h.
- Year 2019-2020:
 - Object Oriented Programation (JAVA tutorials), 3rd year of Bachelor’s degree in Computer Science, MIAGE section, 2×18h.
 - Databases (theory, design, implementation), 2nd year of Bachelor’s degree in Computer Science, 36h.

Mediation

2021 - 2022 **Member of Terra numerica**, <https://terra-numerica.org/>.

2021 **Chiche ! program**, *presentation of computer science and research to first year of high-school students.*

Nov 2020 **Video production and Video editing training**, *by Renaud Ducoin.*

Oct 2020 **"Fête de la science"**, *Livestream organization for Inria Sophia Antipolis.*

Mar 2020 **"Semaine des Mathématiques"**, *Entertaining introduction to computer science for children (8-10 y.o.).*

Misc

2019–2021 **Team seminar organization**, *DataShape*, physically and remotely.

Events

- Jul 2022 **AMS-EMS-SMF International meeting 2022**, <https://ams-ems-smf2022.inviteo.fr/en/welcome/4>, Grenoble, France.
- May 2022 **JGA 2022**, <https://project.inria.fr/jga2022/fr/>, Online, France.
- May 2022 **Workshp Structures on Surfaces**, <https://conferences.cirm-math.fr/2533.html>, CIRM, France.
- Mar 2020 **JGA 2020**, <https://conferences.cirm-math.fr/2164.html>, CIRM, France.
- Mar 2019 **JGA2019**, <https://jga2019.sciencesconf.org/>, Bresse, France.
- Sept 2018 **GEOMDATA summer school**, <https://geomdata.sciencesconf.org/>, Fréjus, France.

References

Research

Dr. Jean-Daniel Boissonnat

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Dr. Fabrice Rouillier

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Teaching

Pr. Frédéric Mallet

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Mediation

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