

# William SAREM

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Year of birth: 1999  
 French nationality

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## Education

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- 2023 – ...      PhD Student at Institut Fourier, Grenoble Alpes University, supervised by Pierre Py.  
                   Title: Complex hyperbolic geometry and uniformization.
- 2019 – 2023    Student at École Normale Supérieure de Lyon.
- 2021 – 2022    Master's degree in Pure Mathematics (University of Strasbourg).
- 2019            Bachelor's degree in Applied Mathematics (Paris Dauphine University).
- 2017 – 2019    CPES Multidisciplinary Undergraduate degree: Bachelor's degree in Mathematics (Paris Sciences et Lettres University).

## Recent Research internships

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- 2023            6-month internship at Rennes University under the supervision of Christophe Dupont.  
                   Subject: Holomorphic properties of complex hyperbolic manifolds.
- 2022            4-month internship at ETH Zürich under the supervision of Marc Burger.  
                   Subject: Non-uniform lattices of  $PU(n, 1)$ .
- 2022            4-month internship at Strasbourg University under the supervision of Pierre Py.  
                   Subject: Stein manifolds and subgroups of  $PU(n, 1)$ .
- 2021            3-month internship at Bayreuth University under the supervision of Mihai Păun.  
                   Subject: Hodge theory and applications.
- 2020            6-week internship at Strasbourg University under the supervision of Pierre Py.  
                   Subject : Milnor's fibration.

## Preprint

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- 2023            Curvature properties and Shafarevich conjecture for toroidal compactifications of ball quotients (arXiv).

## Talks

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- June 2023      Analytic Geometry Seminar, IRMAR, Rennes.  
                   Title: Propriétés de courbure et conjecture de Shafarevich pour les compactifications toroidales de quotients de la boule.
- June 2023      Short talk: Alpine meeting on nonpositive curvature in Kähler geometry, Aussois.  
                   Title: Curvature properties for toroidal compactifications of ball quotients.
- March 2023     PhD seminar: Pampers, IRMAR, Rennes.  
                   Title: La formule de Matsushima.
- Decem. 2022    PhD seminar: Geometry Graduate Colloquium, ETH Zürich.  
                   Title: Harmonic forms and cohomology in smooth (complex) manifolds.
- June 2022      GT3 seminar, IRMA, Strasbourg.  
                   Title: Variétés de Stein et sous-groupes de  $PU(n, 1)$ .

## Attended conferences

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- July 2023        Lattices in Negative Curvature, Les Diablerets.
- June 2023        Alpine meeting on nonpositive curvature in Kähler geometry, Aussois.
- July 2022        Complex Hyperbolic Geometry and Related Topics, CIRM, Marseille.

## Teaching

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2023      MAT101: Mathematical Language, Elementary Algebra and Geometry, 32h, Lectures and Tutorials, Grenoble Alpes University.

## Languages spoken

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French      Native speaker  
English     Fluent