

Division of Science and Mathematics
New York University Abu Dhabi
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French Citizenship



Quentin Ehret

Academic Positions

- October 2023 - **Post-doctoral researcher**, Supervisor: Sofiane Bouarroudj
September 2026 Division of Sciences and Mathematics, New York University Abu Dhabi (United Arab Emirates)
- October 2020 - **PhD Student**, Supervisor: Abdenacer Makhlouf
September 2023 Institut de Recherche en Informatique, Mathématiques, Automatique et Signal (IRIMAS), Université de Haute-Alsace, Mulhouse (France)

Education

- February 2024 **Qualification aux fonctions de Maître de Conférences**, French national scientific qualification as Associate Professor, Section 25.
- October 2020 - **PhD in Mathematics**, *Study and Deformations of Lie-Rinehart (Super)algebras in Positive Characteristic*, Supervisor: Abdenacer Makhlouf
September 2023 Institut de Recherche en Informatique, Mathématiques, Automatique et Signal (IRIMAS), Université de Haute-Alsace, Mulhouse (France)
- 2019 - 2020 **Master's Degree in Science and Technology**, *Topology, Algebra and Representations*
UFR de Mathématique et d'Informatique, Strasbourg (France)
- 2019 **Agrégation of Mathematics**, *Competitive secondary-school and university teaching degree*
- 2017 - 2019 **Master's Degree in Science and Technology**, *Higher Education Teaching*
UFR de Mathématique et d'Informatique, Strasbourg (France)
- 2016 - 2017 **Bachelor's Degree in Science and Technology**, *Mathematics*
UFR de Mathématique et d'Informatique, Strasbourg (France)
- 2014 - 2016 **Preparatory Class**, *Mathematics, Physics and Engineering (MPSI-MP)*
Lycée Kléber, Strasbourg (France)

Preprints

- Preprint 9. **Q. Ehret, N. Gilliers**, *Jacobson identities for post-Lie algebras in positive characteristic*, arXiv:2504.14540, April 2025, submitted.
- Preprint 8. **S. Bouarroudj, Q. Ehret, J. Liu**, *Cohomology of restricted Poisson algebras in characteristic 2*, arXiv:2504.07601, April 2025, submitted

Publications

- Journal paper 7. **S. Benayadi, S. Bouarroudj, Q. Ehret**, *Left-symmetric superalgebras and Lagrangian extensions of Lie superalgebras in characteristic 2*, arXiv:2501.15432, January 2025, **to appear** in Journal of Pure and Applied Algebra.
- Journal paper 6. **Q. Ehret**, *An alternative approach to deformations of restricted Lie-Rinehart algebras*, arXiv:2504.14527, April 2025, **to appear** in Communications in Algebra.
<https://doi.org/10.1080/00927872.2025.2527218>

- Journal paper 5. **Q. Ehret, A. Makhlouf**, *Cohomology and deformations of restricted Lie algebras and their morphisms in positive characteristic*, Advances in Pure and Applied Mathematics 2025, vol. 16, n° 3, 26-73
<https://doi.org/10.21494/ISTE.OP.2025.1316>
- Journal paper 4. **S. Bouarroudj, Q. Ehret**, *Central extensions of restricted Lie superalgebras and classification of p -nilpotent Lie superalgebras in dimension 4*, **arXiv:2401.08313**, January 2024
To appear in Journal of Algebra and Its Applications (2026),
<https://doi.org/10.1142/S0219498826500659>
- Journal paper 3. **S. Bouarroudj, Q. Ehret**, *Double extensions of quasi-Frobenius Lie superalgebras with degenerate center*, Communications in Algebra, Vol. **53** (5), 1739–1754, (2025)
<https://doi.org/10.1080/00927872.2024.2421408>
- Journal paper 2. **S. Bouarroudj, Q. Ehret, Y. Maeda**, *Symplectic double extensions for restricted quasi-Frobenius Lie (super)algebras*, SIGMA 19 (2023), 070, 29 pages
<https://doi.org/10.3842/sigma.2023.070>
- Journal paper 1. **Q. Ehret, A. Makhlouf**, *On classification and deformations of Lie-Rinehart superalgebras*, Communications in Mathematics 30 (2022), no. 2, 67–92.
<https://doi.org/10.46298/cm.10537>

Talks and Communications

- September 2025 **Conference**, *Lagrangian extensions of Lie superalgebras in characteristic 2*, X International Workshop on Non-Associative Algebras
Bourgogne Europe University, Dijon (France)
- September 2025 **Conference**, *Restricted Poisson algebras in characteristic 2*, China–Central Asia Algebraic Conference 2025
Almaty (Kazakhstan)
- June 2025 **Conference**, *Restricted Poisson algebras in characteristic 2*, Workshop on algebras and applications in mathematical physics
Chern Institute, Nankai University, Tianjin (China)
- February 2025 **Seminar**, *On Lie superalgebras in characteristic $p = 2$* , NYUAD Math Post-Doc Seminar
New York University Abu Dhabi (United Arab Emirates)
- January 2025 **Seminar**, *Central extensions of restricted Lie superalgebras and classification of p -nilpotent Lie superalgebras in dimension 4*, ART Seminar
Institut de Recherche Mathématique Avancée, Strasbourg (France)
- December 2024 **Conference**, *Lagrangian extensions of Lie superalgebras in characteristic 2*, 6th Euro-Maghreb Conference in Algebra, Geometry and Lie Theory
Hammamet (Tunisia)
- November 2024 **Conference**, *Central extensions of restricted Lie superalgebras and classification of p -nilpotent Lie superalgebras in dimension 4*, Non-associative algebras, representations and applications International Conference
SUSTech, International Center for Mathematics, Shenzhen (China)
- July 2024 **Conference**, *Central extensions of nilpotent Lie superalgebras*, MATHÉOR Days 2, Annual meeting of the PhD Students of Alsace and surroundings
Sainte-Marie-aux-Mines, France
- April 2024 **Seminar**, *Restricted Lie algebras in characteristic $p = 2$* , NYUAD Math Post-Doc Day
New York University Abu Dhabi (United Arab Emirates)
- March 2024 **Seminar**, *Central extensions of restricted Lie superalgebras and classification of p -nilpotent Lie superalgebras in dimension 4*
IRIMAS, Département de Mathématiques, Mulhouse (France)
- February 2024 **Conference**, *Central extensions of restricted Lie superalgebras and classification of p -nilpotent Lie superalgebras in dimension 4*, VII International Workshop on Non-Associative Algebras
University of Salento, Lecce (Italy)

- January 2024 **Seminar**, *Central extensions of restricted Lie superalgebras and classification of p -nilpotent Lie superalgebras in dimension 4*, GTP Seminar
New York University Abu Dhabi (United Arab Emirates)
- June 2023 **Short communication**, *Study and Deformations of Lie-Rinehart (Super)algebras in Positive Characteristic*, PhD Students Day 2023
Université de Haute-Alsace, Mulhouse (France)
- April 2023 **Conference**, *Symplectic double extensions for restricted quasi-Frobenius Lie (super)algebras*, Euro-Maghreb Conference in Algebra, Geometry and Lie Theory
Sousse (Tunisia)
- March 2023 **PhD Seminar**, *Restricted structures on the Heisenberg algebra*, PhD seminar of the IRMA Institute
Institut de Recherche Mathématique Avancée, Strasbourg (France)
- January 2023 **PhD Seminar**, *Algebraic structures emerging from genetic inheritance*, PhD seminar of the IRIMAS Institute
IRIMAS, Mulhouse (France)
- December 2022 **Seminar**, *Chevalley-Eilenberg cohomology and deformations of Lie algebras in positive characteristic*.
Institute of Mathematics and Statistics of Tartu (Estonia)
- October 2022 **Conference**, *Deformations of Lie-Rinehart (super)algebras*, IV International Workshop on Non-Associative Algebras
University of Beira Interior, Covilhã (Portugal)
- September 2022 **Conference**, *Lie-Rinehart (super)algebras*, Conference New Trends in Hopf Algebras and Monoidal Categories
University of Torino (Italy)
- June 2022 **Conference**, *Lie-Rinehart (super)algebras*, Conference of differential geometry, contact geometry, dynamical systems and beyond, in memory of Robert Lutz
IRIMAS, Département de Mathématiques, Mulhouse (France)
- March 2022 **Seminar**, *Cohomology and Deformations of restricted Lie Algebras in positive Characteristic*
IRIMAS, Département de Mathématiques, Mulhouse (France)
- February 2022 **PhD Seminar**, *A Survey about Deformations of Lie Algebras*, PhD seminar of the IRMA Institute
Institut de Recherche Mathématique Avancée, Strasbourg (France)
- November 2021 **Poster**, *On classification and deformations of Lie-Rinehart superalgebras*, Research School Higher Structures Emerging from Renormalisation
Erwin Schrödinger Institute, Vienna (Austria)
- November 2021 **Talk in a workshop**, *Birkhoff Theorem and Optimal Transport*, Optimal Transport Workshop
IRIMAS, Mulhouse (France)
- May 2021 **Talk in a workshop**, *About the Grothendieck Group K_0* , K -Theory Workshop
Institut de Recherche Mathématique Avancée, Strasbourg (France)

Participation in Conferences and Research Schools (without a talk)

- April 2025 **Conference**, *UAE Math Day*, Annual meeting of the mathematicians of the UAE,
University of Sharjah, United Arab Emirates
- February 2025 **Conference**, *Conference on Lie Theory and related Topics*, (Organizer)
New York University Abu Dhabi, United Arab Emirates
- June 2024 **Conference**, *Conference on Algebra and Deformations*, in honor of Abdenacer Makhlouf for his 60th birthday, (Organizer)
Université de Haute-Alsace, France
- March 2024 **Conference**, *UAE Math Day*, Annual meeting of the mathematicians of the UAE, (Organizer)
New York University Abu Dhabi, United Arab Emirates

- November 2023 **Conference**, *SICMS23*, Sharjah International Conference on Mathematical Sciences
University of Sharjah, United Arab Emirates
- June 2023 **Conference**, *MAThEOR Days*, Annual meeting of the PhD Students of Region Alsace
and surroundings, (Organizer)
Sewen, France
- April 2023 **Research School**, *Higher Structures in Geometry and Mathematical Physics*
Centre International de Rencontres Mathématiques (CIRM), Luminy (France)
- December 2022 - **Workshop**, *Associators, Categories and Multizetas values*
July 2023 IRIMAS, Mulhouse (France)
- November 2022 **Conference**, *GDR Renormalisation Annual Meeting 2022 : Hopf Algebras and
Applications*
Université du Littoral Côte d'Opale, Calais (France)
- July 2022 **Conference**, *Hopf algebras, monoidal categories and related topics*
Simion Stoilow Institute of Mathematics of the Romanian Academy, Bucharest (Romania)
- March 2022 **Conference**, *Les sciences dans tous les sens : sœurs jumelles ou sœurs ennemies ?*
Université de Haute-Alsace, Mulhouse (France)
- November 2021 **Research School**, *Higher Structures Emerging from Renormalisation*
Erwin Schrödinger Institute, Vienna (Austria)
- September 2021 **Conference**, *Mathematics without Borders: The Centennial of the International Mathe-
matical Union*
Strasbourg (France)
- June 2021 **Research School**, *Symplectic Structures in Mathematics and Applications to Control
Theory (remotely)*
Hassan II University, Casablanca (Morocco)

Grants

- November 2024 **Post Doctoral Associate Conference Travel Grant**, NYUAD Graduate and Post-
Doctoral Programs, 1000 US\$.

Teaching

- Summer 2025 **Occasional replacements in Multivariable Calculus**, 6h.
New York University Abu Dhabi (United Arab Emirates)
- Spring 2025 **Recitations, Algebra 1**, (Groups Theory), 10h.
New York University Abu Dhabi (United Arab Emirates)
- Fall 2024 **Occasional replacements in Calculus**, 5h.
New York University Abu Dhabi (United Arab Emirates)
- Spring 2024 **Recitations, Algebra 2**, (Rings, Fields, Field Extensions, Galois Theory), 10h.
New York University Abu Dhabi (United Arab Emirates)
- Spring 2021-2022-2023 **Lecturer, Linear Algebra and Geometry**, 28h each year, First year of Engineering
School ENSCMU and ENSISA.
Université de Haute-Alsace, Mulhouse (France)
- Spring 2021-2022-2023 **Lecturer, Real Analysis**, 16h each year, First year of Engineering School ENSISA.
Université de Haute-Alsace, Mulhouse (France)
- Fall 2020-2021-2022 **Lecturer, Numerical Analysis**, 20h each year, Second Year of Engineering School
ENSISA.
Université de Haute-Alsace, Mulhouse (France)

Other activities

- June 2025 **Popular Science**, *Career : mathemaician, from Mulhouse to Abu Dhabi*, Math C2+
internship, short talk (in French) aimed at high school students
Université de Haute-Alsace, Mulhouse (France)

- February 2025 **Member of an Organizing Committee**, *Conference on Lie Theory and Related Topics*
New-York University, Abu Dhabi (United Arab Emirates)
- Since September 2024 **Member of an Organizing Committee**, *Post-Doc Seminar*, Semimonthly seminar of the Math Post-Docs at NYUAD
New-York University, Abu Dhabi (United Arab Emirates)
- July 2024 **Member of an Organizing Committee**, *MAThEOR Days 2*, Conference of PhD students and young researchers of Alsace and surroundings
Université de Haute-Alsace and Université de Strasbourg (France)
- June 2024 **Member of an Organizing Committee**, *Conference of Algebra and Deformations*
Université de Haute-Alsace, Mulhouse (France)
- March 2024 **Member of an Organizing Committee**, *Math Day 2024*, Annual meeting of mathematicians of the UAE
New-York University, Abu Dhabi (United Arab Emirates)
- June 2023 **Main Organizer**, *MAThEOR Days*, Conference of PhD students and young researchers of Alsace and surroundings
Université de Haute-Alsace and Université de Strasbourg (France)
- November 2022 **Popular Science**, *Conference on Magic Squares and Optimal Transport*
Université de Haute-Alsace, Mulhouse (France)
- June 2022 **Member of an Organizing Committee**, *Conference of Differential Geometry, Contact Geometry, Dynamical Systems and beyond*, in memory of Robert Lutz
Université de Haute-Alsace, Mulhouse (France)
- March 2022 **Popular Science**, *Math workshop in a Primary School*, (2h)
Ecole primaire d'Uffholtz (France)
- September 2021 - September 2023 **Elected Representative**, for doctoral students of the University of Haute-Alsace on the board of the Doctoral School, ED 269 (MSII)
Mulhouse and Strasbourg (France)
- 2021-2022 **Popular Science**, *Math workshop in High School*, MATH.en.JEANS, (6 months)
Lycée Scheurer-Kestner, Thann (France)

Various skills

- Languages **French** (Mother tongue), **English** (professional and colloquial), **German** (Intermediate), **Arabic** (basic notions)
- Programming **L^AT_EX**, **Python**, **Mathematica**, **html** (beginner)

Hobbies

Electric guitar, amateur songwriter, hiking, reading, history & prehistory, painting, swimming, badminton.

References

Abdenacer Makhlouf, *PhD Thesis supervisor*, University of Haute-Alsace, France, abdenacer.makhlouf@uha.fr

Sofiane Bouarroudj, *Post-doc supervisor*, New York University Abu Dhabi, United Arab Emirates, sofiane.bouarroudj@nyu.edu

Martin Bordemann, *President of the PhD Committee*, University of Haute-Alsace, France, martin.bordemann@uha.fr

Saïd Benayadi, *Collaborator*, University of Lorraine, France
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More informations can be found on my webpage: <https://perso.matheor.com/quentin-ehret/>