

Division of Science and Mathematics  
New York University Abu Dhabi  
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United Arab Emirates  
qe209@nyu.edu  
Birthdate: 25<sup>th</sup> April 1996  
French Citizenship



# Quentin Ehret

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## Academic Positions

- October 2023 - **Post-doctoral researcher**, Supervisor: Sofiane Bouarroudj  
September 2025 Division of Sciences, New York University Abu Dhabi, 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)

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## 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**, *Fundamental Mathematics*  
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**, *Agregation of Mathematics*  
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)

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## Preprints

- Preprint 5. **S. Bouarroudj, Q. Ehret**, *Double extensions of quasi-Frobenius Lie superalgebras with degenerate center*, [arXiv:2405.12128](https://arxiv.org/abs/2405.12128), May 2024
- Preprint 4. **S. Bouarroudj, Q. Ehret**, *Central extensions of restricted Lie superalgebras and classification of  $p$ -nilpotent Lie superalgebras in dimension 4*, [arXiv:2401.08313](https://arxiv.org/abs/2401.08313), January 2024
- Preprint 3. **Q. Ehret, A. Makhlouf**, *Deformations and Cohomology of restricted Lie-Rinehart algebras in positive characteristic*, [arXiv:2305.16425](https://arxiv.org/abs/2305.16425), May 2023

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## Publications

- 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
- Journal paper 1. **Q. Ehret, A. Makhlouf**, *On classification and deformations of Lie-Rinehart superalgebras*, Communications in Mathematics 30 (2022), no. 2, 67–92.

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## Talks and Communications

- 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)

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## Participation in Conferences and Research Schools (without a talk)

- June 2024 **Conference**, *Conference on Algebra and Deformations*, in honor of Abdenacer Makhlouf for his 60<sup>th</sup> 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, Bucarest (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)
- June 2021 **Research School**, *Symplectic Structures in Mathematics and Applications to Control Theory (remotely)*  
Hassan II University, Casablanca (Morocco)

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## Teaching

- 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)

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## Other activities

- 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 **Elected Representative**, *for doctoral students of the University of Haute-Alsace on the board of the Doctoral School*, ED 269 (MSII)  
- September 2023 Mulhouse and Strasbourg (France)
- 2021-2022 **Popular Science**, *Math workshop in High School*, MATH.en.JEANS, (6 months)  
Lycée Scheurer-Kestner, Thann (France)

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## Various skills

- Languages **French (Mother tongue), English (professional and colloquial), German (Intermediate), Arabic (basic notions)**
- Programming **L<sup>A</sup>T<sub>E</sub>X, Python, Mathematica, html (beginner)**

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## Other

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

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## References

**Abdenacer Makhoulouf**, *PhD Thesis supervisor*, University of Haute-Alsace, France, [abdenacer.makhoulouf@uha.fr](mailto:abdenacer.makhoulouf@uha.fr)

**Sofiane Bouarroudj**, *Post-doc supervisor*, New York University Abu Dhabi, United Arab Emirates, [sofiane.bouarroudj@nyu.edu](mailto:sofiane.bouarroudj@nyu.edu)

**Martin Bordemann**, *President of the PhD Committee*, University of Haute-Alsace, France, [martin.bordemann@uha.fr](mailto:martin.bordemann@uha.fr)

**Vyacheslav Futorny**, *Collaborator*, Shenzhen International Center for Mathematics, China, [vfutorny@gmail.com](mailto:vfutorny@gmail.com)

**Saïd Benayadi**, *Collaborator*, University of Lorraine, France  
[said.benayadi@univ-lorraine.fr](mailto:said.benayadi@univ-lorraine.fr)

More informations can be found on my webpage: <https://perso.matheor.com/quentin-ehret/>