### Mathematics Ph D

### Education

- 2019 2023 **Ph.D. Mathematics**, *University of Strasbourg*, Strasbourg (France), Title: Algebraic structures associated to the double shuffle relations between multiple polylogarithm values at roots of unity. Supervisor: Benjamin Enriquez. Date of defense: March 14<sup>th</sup>, 2023.
- 2017 2018 M. Sc. Mathematics, *University of Strasbourg*, Strasbourg (France), Fundamental Mathematics: Algebraic Geometry
- 2015 2017 M. Sc. Mathematics, University of Sciences and Technologies Houari Boumediene, Algiers (Algeria), Dynamical Systems and Geometry
- 2012 2015 B. Sc. Mathematics and Computer Science, University of Sciences and Technologies Houari Boumediene, Algiers (Algeria), Algebra and Cryptography
  - 2012 Baccalaureate, Assi Youcef High School, Tizi Ouzou (Algeria), Mathematics Stream

# Prepints/Publications

- [1] K. Yaddaden, Crossed product interpretation of the double shuffle Lie algebra attached to an abelian group, *Publications of the Research Institute for Mathematical Sciences*, 2023. Available since December 2021 at arXiv:2112.14140
- [2] K. Yaddaden, The cyclotomic double shuffle torsor in terms of Betti and de Rham coproducts, 2023. arXiv preprint arXiv:2304.04061

#### Presentations

- June 02<sup>nd</sup>, 2023 Mid-term workshop of the ANR HighAGT, Double shuffle torsor of cyclotomic multizeta values and stabilizer de Rham and Betti coproducts, Institut de Recherche Mathématique Avancée, Strasbourg (France)
  - August 30<sup>th</sup>, "Algebra, Topology and the Grothedieck-Teichmüller group" Conference, Stabilizer Lie algebra of the harmonic coproduct, SwissMAP Research Station, Les Diablerets (Switzerland)
  - August 22<sup>nd</sup>, Web Seminar, Double shuffle Lie algebra and crossed product, Mathematics 2022 Department of the University of Nagoya, Nagoya (Japan)
- May 11<sup>th</sup>, 2022 **Quantum Seminar**, *Double shuffle Lie algebra and crossed product*, Institut de Recherche Mathématique Avancée, Strasbourg (France)
  - March 16<sup>th</sup>, **GDR Colloquium**, *Lie Theory in Algebra and Geometry*, Institut Mathéma-2022 tique de Bourgogne, Dijon (France). Title: Double shuffle Lie algebra and crossed product

## Teaching Experience

October 2022 – Temporary Teaching and Research Attaché (ATER), *UFR Mathéma-*August 2023 *tiques et Informatique*, University of Strasbourg

March – April Bachelor thesis supervision, *UFR Mathématiques et Informatique*, Univer-2022 sity of Strasbourg, Title: "Affine algebraic sets"

March – April Bachelor thesis supervision, *UFR Mathématiques et Informatique*, Univer-2021 sity of Strasbourg, Title: "Finite fields"

October 2019 – **Teaching assistant**, *UFR Mathématiques et Informatique*, University of June 2022 Strasbourg

October 2018 – **Teaching assistant**, *Marc Bloch High School*, Bischheim September 2019

#### Skills

Computer Skills LATEX, C, Python.

Languages Kabyle (Mother tongue), French, English, Arabic.