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Professional experience

2019- ...	Chargé de Recherches FNRS , Université Catholique de Louvain
2019- ...	Organiser for the Topology seminar, Université Catholique de Louvain
2016-2019	Postdoctoral assistant at the University of Geneva (with teaching duties)
2016-2019	Organiser for the Topology seminar, University of Geneva
2016-2019	Scientific communication with the <i>Mathscope</i> , University of Geneva
2016-2018	Tutoring researcher for high schoolers with <i>MATh.en.JEANS</i>
2015	Member of the research team “Topology and Algebraic Geometry” at IMJ-PRG (Paris 7): Attaché Temporaire d’Enseignement et de Recherche
2012-2015	Member of the research team “Topology and Algebraic Geometry” at IMJ-PRG (Paris 7): PhD student
2014-2015	Organiser for the PhD students seminar at Université Paris Diderot
2012-2015	Teacher assistant at Université Paris Diderot, Mathematics (L1, L3)
2009-2012	Mathematics examiner in preps school (CPGE), lycée Louis-le-Grand, Paris
2008-2009	Tutor in mathematics and physics for the voluntary association Ta1ENS

Initial training

2012-2015	PhD thesis at the Université Paris Diderot, under the supervision of Jérôme Dubois : “A study of properties and computation techniques of the L^2 -Alexander invariant in knot theory.” Thesis defended the 10/07/2015.
2008-2012	Mathematical undergraduate and graduate formation (FIMFA), ENS-Ulm <ul style="list-style-type: none">• Master in Fundamental Mathematics, Paris 7 (2011, with honors)• Agrégation Externe de Mathématiques (2010, rank 6)• Maîtrise of Mathematics (equivalent to the first year of Master’s Degree), Paris-Sud/ENS-Ulm (2009)• Bachelor’s Degree of Mathematics, Paris-Sud/ENS-Ulm (2009)
2006-2008	Preps school (Classe Préparatoire aux Grandes Écoles) in Mathematics, Physics and Computer Science (Lycée Louis-le-Grand, Paris) <ul style="list-style-type: none">• Enrolled at the École Normale Supérieure ENS-Ulm, an elite higher education institution for advanced undergraduate and graduate studies. (Rank: 6/40); also admitted at the École Polytechnique.
2003-2006	Secondary education at the lycée Louis-le-Grand, Paris <ul style="list-style-type: none">• Scientific “Baccalauréat” (mention “Très Bien”, mean grades 17.34/20)• Student of the International Mathematical Olympiad

Publications and pre-publications

- 2019 *New geometric triangulations for complements of twist knots*, with E. Piguet-Nakazawa, 23 pages, arXiv:1903.09480.
- 2019 *The Teichmüller TQFT Volume Conjecture for twist knots*, with E. Piguet-Nakazawa, C. R. Acad. Sci. Paris, Ser. I (2019), 9 pages.
- 2018 *The leading coefficient of the L^2 -Alexander torsion*, with S. Friedl and G. Herrmann, 31 pages, arXiv:1806.10965.
- 2016 *L^2 -Burau maps and L^2 -Alexander torsions*, with A. Conway, *Osaka J. Math.* 55 (2018), 529-545.
- 2016 *The L^2 -Alexander invariant is stronger than the genus and the simplicial volume*, *Journal of Knot Theory and its Ramifications* Vol. 28, No. 05, 1950030 (2019).
- 2016 *Gluing formulas for the L^2 -Alexander torsions*, *Communications in Contemporary Mathematics* 1850013 (2018), 31 pages.
- 2014 *The L^2 -Alexander invariant detects the unknot*, *Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)* Vol. XV (2016), 683-708.
- 2013 *The L^2 -Alexander invariant detects the unknot*, C. R. Acad. Sci. Paris, Ser. I 351 (2013) 215-219.

Talks in International Conferences

- Conference “Braid groups, configuration spaces and homotopy theory”, Salvador de Bahia (2018)
- Conference “Geometry, Quantum Topology and Asymptotics”, Sonderborg (2018)
- Conference “Representation Spaces, Teichmüller Theory, and 3-manifolds”, CIRM (2018)
- Workshop on Quantum Topology, Université Lille 1 (2017)
- Journées Géométrie et Topologie du GdR Tresses et de la FRMRAA, Lyon (2016)
- Conference “Knots in Hellas”, Olympia (2016)
- Winterbraids VI, Lille (2016)
- Conférence “Swiss Knots”, Genève (2015)
- Young Topologist Meeting, Imperial College, London (2014)
- Winterbraids IV, Dijon (2014)
- Conférence “Topologie et géométrie en petite dimension à Toulouse” (2013)
- Young Topologist Meeting, Imperial College, London (2013)

Recent lectures

- Séminaire de Topologie, Louvain-La-Neuve (2019).
- Topology Seminar, Oxford (2019).
- Séminaire de Géométrie et Topologie, Toulouse (2019).
- Mathematical Colloquium, Universität Bern (2018).

Skills and languages

Organizing conferences and other group meetings.

Programming: SAGE, Caml, Maple.

Writing: \TeX documents, HTML webpages.

Driving License, category B.

French (native), **English** (fluent spoken and written), **Spanish** (good), **Arabic** (basic).