

Academic Career

- Since Sept. 2018 **Maître de conférences**, *Université Paris Cité & Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)*, Paris, France
- Feb. 2018 – Aug. 2018 **Postdoctoral researcher**, *ETH Zürich*, Zürich, Switzerland
Group of Thomas Willwacher. Funded by ERC StG 678156–GRAPHCPX.
- Sept. 2015 – Jan. 2018 **Doctorate in Mathematics**, *Université de Lille & Laboratoire Paul Painlevé*, Lille, France
Title: *Operadic Formality and Homotopy of Configuration Spaces*. Advisor: Benoit Fresse. Thesis defended on November 17th, 2017.
- Sept. 2011 – Aug. 2015 **Élève de l'École Normale Supérieure**, *ENS Ulm*, Paris, France
2014–2015: Research internship in preparation of a doctorate, Université de Lille.
2013–2014: Master's degree in Fundamental Mathematics, Université Paris Diderot.
Fall 2013: Research internship in algebraic topology, Massachusetts Institute of Technology.
- 2009–2011 **Classes préparas (MPSI/MPE)**, *Lycée Henri Wallon*, Valenciennes, France

Awards

- 2021–2024 **Research and Doctoral Supervision Bonus (PEDR)**, *Conseil National des Universités (CNU) / Université Paris Cité*.
- 2019–2020 **Peccot Lecture**, *Collège de France – Fondation Claude-Antoine Peccot*, Paris, France

Research

Research interests

General Topology, Algebra

Specific Homotopy theory; Operads; Configuration Spaces; Homological stability; Factorization Homology; Graph Complexes

Publications

- [1] Najib Idrissi and Renato Vasconcellos Vieira. “Non-formality of Voronov’s Swiss-Cheese operads.” In: *Q. J. Math.* (2024). doi: 10.1093/qmath/haad041. arXiv: 2303.16979.
- [2] Ricardo Campos, Najib Idrissi, Pascal Lambrechts, and Thomas Willwacher. “Configuration Spaces of Manifolds with Boundary.” In: *Astérisque* (2023). arXiv: 1802.00716. Forthcoming.
- [3] Najib Idrissi. “Curved Koszul duality of algebras over unital versions of binary operads.” In: *J. Pure Appl. Algebra* 227.3 (2022). issn: 0022-4049. doi: 10.1016/j.jpaa.2022.107208. arXiv: 1805.01853.
- [4] Najib Idrissi. *Real Homotopy of Configuration Spaces. Peccot Lecture, Collège de France, March & May 2020*. Lectures Notes in Mathematics. Cham: Springer, 2022. 187 pp. isbn: 978-3-031-04427-4. doi: 10.1007/978-3-031-04428-1.
- [5] Ricardo Campos, Julien Ducoulombier, and Najib Idrissi. “Boardman–Vogt resolutions and bar/cobar constructions of (co)operadic (co)bimodules.” In: *High. Struct.* 5.1 (2021), pp. 293–366. doi: 10.21136/HS.2021.09. arXiv: 1911.09474.
- [6] Najib Idrissi. “Formality of a higher-codimensional Swiss-Cheese operad.” In: *Algebr. Geom. Topol.* 1 (22 2020), pp. 55–111. doi: 10.2140/agt.2022.22.55. arXiv: 1809.07667.
- [7] Najib Idrissi. “The Lambrechts–Stanley Model of Configuration Spaces.” In: *Invent. Math.* 216.1 (2019), pp. 1–68. issn: 1432-1297. doi: 10.1007/s00222-018-0842-9. arXiv: 1608.08054.
- [8] Najib Idrissi. “Swiss-Cheese operad and Drinfeld center.” In: *Israel J. Math.* 221.2 (2017), pp. 941–972. doi: 10.1007/s11856-017-1579-7. arXiv: 1507.06844.
- [9] Najib Idrissi. “Opéradés et Structures Commutatives à Homotopie Près.” In: *Grad. J. Math.* 1.1 (2016), pp. 9–17. issn: 1737-0299. URL: <http://www.gradmath.org/article/opéradés-et-structures-commutatives-à-homotopie-près/>.

Preprints

- [1] Najib Idrissi and Eugene Rabinovich. *Homotopy Prefactorization Algebras*. 2023. arXiv: 2304.13011. Pre-published.
- [2] Ricardo Campos, Najib Idrissi, and Thomas Willwacher. *Configuration Spaces of Surfaces*. Version 2. 2019. arXiv: 1911.12281. Pre-published. 50 pp.
- [3] Ricardo Campos, Julien Ducoulombier, Najib Idrissi, and Thomas Willwacher. *A model for framed configuration spaces of points*. 2018. arXiv: 1807.08319. Pre-published. 27 pp.

Other documents

- [1] Najib Idrissi. “Formalité opéradique et homotopie des espaces de configuration.” PhD thesis. Université Lille 1, Nov. 17, 2017. 173 pp. URL: <http://ori.univ-lille1.fr/notice/view/univ-lille1-ori-455595>.
- [2] Najib Idrissi. “Homologie et complexes de déformations d’opérades E_n .” Master’s thesis. Université Paris Diderot, 2014.

Funding

Obtained

- 2022–2027 **PI of the project “Structure and Homotopy of Configuration Spaces” (SHoCoS)**, *Agence Nationale de la Recherche (ANR)*, Young Researcher (JCJC) Project
Identifiant: ANR-22-CE40-0008. Budget: 214 k€ over five years.
- 2022 **Délégation CNRS**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche (IMJ-PRG)*, First semester of 2022–2023
Sabbatical semester (100% research) funded by the CNRS.
- 2019 **PEPS Project “Young Researcher” (PEPS JCJC)**, *CNRS / Insmi*
Budget: 3500 € over one year.
- 2015–2018 **Specific doctoral contract “normalien” (CDSN)**, *École Normale Supérieure de Paris*
Fully funded PhD, carried out at Université de Lille.

Member

- 2021–2024 Member of the ANR project “Higher Algebra, Geometry, and Topology (HighAGT)”. Coordinator: Bruno Vallette.
- 2014–2015 Member of the ANR project “Homotopie algébrique, Opérades et groupes de Grothendieck–Teichmüller (HOGT)”. Coordinator: Benoit Fresse.

Supervision

PhD theses

2022–2025: Marie-Camille Delarue (codir w/ N. Wahl), “Stable Homology of Higman–Thompson Groups and Generalizations”.

Master’s theses

2023–2024: Filipp Buryak (codir w/ E. Lindell)

2022–2023: François Nougayrède (codir w/ E. Wagner), “Homologie stable des groupes de difféotopie des surfaces”

2020–2021: Marie-Camille Delarue, “Homotopy of Embedding Spaces between Smooth Manifolds”

Research initiation (M1 thesis)

2023: Filipp Buryak, “Acyclic models”

Bachelor theses

2020–2021: Yasamin Jalalian, “Lie Algebras and the PBW theorem”

Service

2022–2025 **Member of the Scientific Council**, *Mathematics department*, Université Paris Cité

Guidance Counseling, *Paris Graduate School of Mathematical Sciences*

2023–2024: Antonio Radimilahy. 2022–2023: Alex Fernandes. 2021–2022: Gylfi Porsteinn.

Writing abstracts, *zbMath Open*

<https://zbmath.org/?q=rn%3A16669>

2021, 2023 **Fête de la science**, *Université Paris Cité*

Outreach event for the general public.

Since 2021 **Project ica1-ufx**, *Université Paris Cité*, UFR de Mathématiques

Web application that displays the timetables of Bachelors and Masters in a format readable by humans. I mainly took care of the part visible by users, written in JavaScript/React.

Organization

- May 2023 **Workshop on Homology of Configuration Spaces and Related Topics**, *Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)*
Part of the ANR SHoCoS project. Co-organizers: A. Brochier, Y. Guiraud, C. Vespa. Admin: C. Lavollay.
- Oct. 2018–2019 **Topology Seminar**, *Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)*
Reading seminar on homological stability, *Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)*
- Oct. 2017 **Introductory day for young researchers**, *Colloque 2017 du GDR Topologie Algébrique*, Paris
- 2016–2017 **PhD students’ seminar**, *Laboratoire Paul Painlevé*, Lille

Committees

PhD defense committees

2020: Erica Minuz (dir: Marcel Bökstedt, Aarhus University)

Master’s memoir committees

2024: Maïlis Fontani (dir: V. Roca i Lucio, EPFL)

2023: Robert Szafarczyk (dir: A. Brochier, UPC), Guang Yang (dir: Adrien Brochier, UPC), Amalia Jerison (dir: D. Chataur, UPJV)

2022: Azélie Picot (dir: O. Randal–Williams, Cambridge University)

2021: Guillaume Bressan (dir: C. Berger, Université de Nice)

2019: Basile Coron (dir: T. Willwacher, ETH Zürich)

- 2018–2019 **Exam board member for L1 MIASHS**, *Université Paris Cité*

Talks

Conferences

- Mar. 2024 **Algebra Days in Caen 2024**, *Université de Caen Normandie*
- Jan. 2024 **Workshop Alps 2024**, *Sainte-Foy-Tarentaise*
- Oct. 2023 **Séminaire Bourbaki du vendredi**, *Institut Henri Poincaré*
- June 2022 **Barcelona Conference on Higher Structures**, *Centre de Recerca Matemàtica (CRM)*
- Jan. 2022 **Third workshop of the ANR project AIMaRe**, *Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)*
- Jan. 2022 **Opening workshop of the ANR project HighAGT**, *Institut Henri Poincaré (IHP)*
- Oct. 2021 **Colloque 2021 du GDR Topologie Algébrique**, *Université de Strasbourg*
- June 2021 **Viva Talbot**, *Massachusetts Institute of Technology (MIT)*, online
- Feb. 2020 **Málaga & Topology Meeting**, *Universidad de Málaga*
- Dec. 2019 **Opening workshop of the OCHoTop project**, *École Polytechnique Fédérale de Lausanne (EPFL)*
- Nov. 2019 **Journée de topologie**, *Université de Picardie Jules Verne*
- May 2019 **Higher Homotopy Algebras in Topology**, *Max-Planck-Institut für Mathematik (MPIM)*
- Jan. 2019 **Higher Structures**, *Centre International de Rencontres Mathématiques (CIRM)*
- June 2018 **Derived Geometry and Higher Categorical Structures in Geometry and Physics**, *Fields Institute*
- May 2018 **Graph Complexes, Configuration Spaces and Manifold Calculus**, *University of British Columbia (Vancouver)*
- Oct. 2017 **Séminaire Itinérant de Catégories**, *Université du Littoral Côte d’Opale*
- July 2017 **Young Topologists Meeting 2017**, *Stockholm Universitet & KTH*
- Feb. 2017 **Conference for Young researchers in homotopy theory and categorical structures**, *Max-Planck-Institut für Mathematik (MPIM)*
- Oct. 2016 **Institut des Hautes Études à Tunis**, *Conference in the honour of Saïd Zarati*
- Oct. 2016 **Université de Picardie Jules Verne**, *Colloque 2016 du GDR Topologie Algébrique et Applications*

Seminars

- Nov. 2022 **Purdue University**, *Topology Seminar*
- May 2022 **Northeastern University**, *Topology Seminar*
- Apr. 2022 **Johns Hopkins University**, *Topology Seminar*
- Mar. 2022 **University of Virginia**, *Topology Seminar*
- Mar. 2022 **École Normale Supérieure (Paris)**, *Raconte moi...*
- June 2021 **Université Sorbonne Paris-Nord**, *Séminaire de l’équipe Topologie Algébrique*
- May 2021 **Københavns Universitet**, *Algebra and Topology Seminar*, online
- May 2021 **University of Haifa**, *Topology and Geometry seminar*, online

- Mar. 2021 **Massachusetts Institute of Technology (MIT)**, *Topology Seminar*, online
- Feb. 2021 **Universität Hamburg**, *Research Seminar on Algebraic Topology*, online
- Jan. 2021 **Université de Strasbourg**, *Séminaire Algèbre et topologie*, online
- Oct. 2020 **Northeastern University**, *Topology seminar*, online
- Apr. 2020 **Institut Fields**, *Toric Topology Research Seminar*, online
- Jan. 2020 **Seminar**, *Aarhus Universitet*
- July 2019 **Université catholique de Louvain**, *Séminaire de Topologie Algébrique*
- May 2019 **Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)**, *Séminaire de Topologie*
- Dec. 2018 **Stockholm Universitet & KTH**, *Stockholm Topology Seminar*
- Nov. 2018 **Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)**, *Geometry & Topology Seminar*
- June 2018 **University of Regina**, *Departmental Colloquium*
- Dec. 2017 **Université de Nantes**, *Topology, Geometry, and Algebra seminar*
- Dec. 2017 **Université de Strasbourg**, *Algebra and Topology seminar*
- Nov. 2017 **Université d'Angers**, *Séminaire de Physique Mathématique et de Topologie Algébrique*
- Nov. 2017 **Université Paul Sabatier (Toulouse)**, *Séminaire Homotopie en Géométrie Algébrique*
- Oct. 2017 **Université de Lille**, *Séminaire de Géométrie des Espaces Singuliers ($\times 2$)*
- Aug. 2017 **ETH Zürich**, *Talks in mathematical physics*
- May 2017 **Université de Lille**, *Séminaire de Géométrie des espaces singuliers ($\times 2$)*
- Jan. 2017 **Université catholique de Louvain**, *Séminaire de Topologie Algébrique*
- Nov. 2016 **Université Paris 13**, *Séminaire de topologie algébrique*
- Sept. 2016 **Université de Lille**, *Séminaire de Topologie*
- June 2016 **ETH Zürich**, *Talks in Mathematical Physics*
- Apr. 2016 **Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)**, *Séminaire de Topologie*
- Dec. 2015 **Université de Lille**, *Séminaire des doctorants*
- Dec. 2015 **Université de Picardie Jules Verne**, *Séminaire des doctorants*
- Oct. 2015 **Université catholique de Louvain**, *Séminaire de Topologie Algébrique*
- Sept. 2015 **Université de Lille**, *Séminaire de Topologie*

Teaching

- 2023–2024 **Effective Algebra**, *M1 Maths-CS (Cryptography)*, lectures, 36h
Mathematical Reasoning 2, *L1 MIA SHS*, lectures + organisation + exercise sessions, 18+5+18h
Affine and Euclidean geometry 5, *L3 Maths*, exercise sessions, 18h
Fundamental Algebra and Analysis II, *L2 MIA SHS*, exercise sessions, 54h
- 2022–2023 **Configurations spaces, algebraic topology and operads**, *Crossroads of geometry, representation theory and higher structures*, 2023 CIMPA School, Universidad Nacional de la Patagonia San Juan Bosco (Puerto Madryn, Argentina)
Mathematical Reasoning 2, *L1 MIA SHS*, lectures + organisation + exercise sessions, 18+5+18h
Computer and Internet Tools, *L1 Maths*, labs, 1h
- 2021–2022 **Homotopy II**, *M2 Fundam. Math*, lectures, 24h
Algorithms and Programming, *L2 Maths*, exercise sessions + labs, 42h
Mathematical Reasoning 2, *L1 MIA SHS*, lectures + organisation + exercise sessions, 18+5+18h
Affine and Euclidean geometry 5, *L3 Maths*, exercise sessions, 18h
Elementary mathematics 1, *L1 Physique*, exercise sessions, 54h
- 2020–2021 **Homotopy II**, *M2 Fundam. Math*, lectures, 24h
Elementary Algebra and Analysis 1 + Mathematical Reasoning 1, *L1 Maths*, lecture+exercises, 56.5h
Elementary Algebra and Analysis 2, *L1 Chemistry*, exercise sessions, 36h
Algorithms and Programming, *L2 Maths*, exercise sessions + labs, 42h
Mock oral exams, *Preparation to the 'agrégation interne'*, 2.5h
- 2019–2020 **Real Homotopy of Configuration Spaces**, *Peccot Lecture, Collège de France*, 8h
Introduction to Homotopy Theory, *M2 of Fundamental Mathematics*, lectures, 24h
Elementary Algebra and Analysis 1 + Mathematical Reasoning 1, *L1 MIA SHS*, lectures + exercises, 56.5h
Elementary Algebra and Analysis 2, *L1 Chemistry*, exercise sessions, 36h

Algorithms and Programming, *L2 Maths*, exercise sessions + labs, 42h
2018–2019 **Elementary Algebra and Analysis 1**, *L1 MIASHS*, lectures + exercises, 72h
Elementary Algebra and Analysis 2, *L1 Chemistry*, exercise sessions, 36h
2017–2018 **Calculus 1**, *L1 MASS*, exercise sessions, 36h
Fundamental mathematics 1, *L1 SESI*, oral exams & tutoring, 16+10h
2016–2017 **Matrix calculus**, *L2 econ-management*, exercise sessions, 36h
Calculus 1, *L1 econ-management*, exercise sessions, 15h
Calculus 1, *L1 MASS*, exercise sessions, 15h
2015–2016 **Fundamental mathematics 2**, *L1 SESI*, exercise sessions, 66h

Visits

Nov. 2022 Eugene Rabinovich @ University of Notre Dame (5 days).
May 2022 Ben Knudsen @ Northeastern University (5 days).
Apr. 2022 Owen Gwilliam @ UMass Amherst (5 days).
July 2019 Pascal Lambrechts @ Université catholique de Louvain (5 days).
June 2019 Thomas Willwacher @ ETH Zurich (5 days).
June 2018 Don Stanley @ University of Regina (10 days).
Aug. 2017 Thomas Willwacher @ ETH Zurich (5 days).
Jan. 2017 Pascal Lambrechts @ Université catholique de Louvain (5 days).
June 2016 Thomas Willwacher @ ETH Zurich (4 days).