

Najib Idrissi

Curriculum Vitæ (EN)

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Academic Career

- Since sept. 2018 **Maître de conférences**, *Université Paris Cité & Institut de Mathématiques de Jussieu-Paris Rive Gauche (IMJ-PRG)*, Paris, France
- févr. 2018–août 2018 **Postdoctoral researcher**, *ETH Zürich*, Zürich, Switzerland
Group of Thomas Willwacher. Funded by ERC StG 678156–GRAPHCPX.
- sept. 2015–janv. 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–août 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*.
My applications was ranked A (top 20 %) by the CNU. This ranking was accepted by Université Paris Cité who awarded me the PEDR for a duration of four years.
- 2019–2020 **Peccot Lecture**, *Collège de France – Fondation Claude-Antoine Peccot*, Paris, France
“Since 1885, the Claude-Antoine Peccot Foundation has been rewarding promising mathematicians under 30 who have distinguished themselves in theoretical and applied mathematics.”

Research

Publications

- [1] Najib Idrissi. *Real Homotopy of Configuration Spaces. Peccot Lecture, Collège de France, March & May 2020*. Lectures Notes in Mathematics (CEMPI Subseries). Cham: Springer, 2022. 187 pp. Forthcoming.
- [2] Ricardo Campos, Julien Ducoulombier, and Najib Idrissi. “Boardman–Vogt resolutions and bar/co-bar constructions of (co)operadic (co)bimodules.” In: *High. Struct.* 5 (1 2021), pp. 293–366. arXiv: 1911.09474. URL: <https://higher-structures.math.cas.cz/api/files/issues/Vol5Iss1/CamIldrduc>.
- [3] 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.
- [4] 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.
- [5] 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.

Preprints

- [6] Ricardo Campos, Najib Idrissi, and Thomas Willwacher. *Configuration Spaces of Surfaces*. Version 2. 2019. arXiv: 1911.12281. Pre-published. 50 pp.

- [7] 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.
- [8] Ricardo Campos, Najib Idrissi, Pascal Lambrechts, and Thomas Willwacher. *Configuration Spaces of Manifolds with Boundary*. 2018. arXiv: 1802.00716. Pre-published. 107 pp.
- [9] Najib Idrissi. *Curved Koszul duality of algebras over unital versions of binary operads*. Version 3. 2018. arXiv: 1805.01853. Pre-published. 33 pp.

Other documents

- [10] 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>.
- [11] Najib Idrissi. “Homologie et complexes de déformations d’opéradés E_n .” Master’s thesis. Université Paris Diderot, 2014.

Funding

Obtained

- 2022 **Délégation CNRS**, *First semester of 2022–2023*
Sabbatical semester (no teaching) funded by the CNRS.
- 2019 **PEPS Project “Young Researcher” (PEPS JCJC)**, CNRS / Insmi, 3500 €
- sept. 2015–janv. 2018 **Specific doctoral contract “normalien”**, *École Normale Supérieure de Paris*

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, Opéradés et groupes de Grothendieck–Teichmüller (HOGT)*”. Coordinator: Benoit Fresse.

Supervision

- 2020–2021 **Marie-Camille Delarue**, *Master’s thesis advisor*, Sorbonne Université / ENS
Title: *Homotopy of Embedding Spaces between Smooth Manifolds*. Defense on September 2nd, 2021.
- 2020–2021 **Yasamin Jalalian**, *Bachelor thesis advisor*, École Polytechnique
Title: *Lie Algebras and the PBW theorem*. Defense on April 22nd, 2021.

Service

Organization

- Since oct. 2018 **One of the organizers of the Topology Seminar**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*
- janv. 2019–juin 2019 **Organization of a reading seminar on homological stability**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*
- oct. 2017 **Participation to the organization of the introductory day for young researchers**, *Colloque 2017 du GDR Topologie Algébrique*, Paris
- 2016–2017 **One of the organizers of the PhD students’ seminar**, *Laboratoire Paul Painlevé*, Lille

Committees

- sept. 2021 **Master’s memoir committee of Guillaume Bressan (advisor: Clemens Berger)**, *Université Paris Cité / Université de Nice*
- janv. 2020 **PhD committee of Erica Minuz (advisor: Marcel Bökstedt)**, *Aarhus University*
- sept. 2019 **Master’s memoir committee of Basile Coron (advisor: Thomas Willwacher)**, *Sorbonne Université / ETH Zürich*

2018–2019 **Exam committee for L1 MIASHS**, *Université Paris Cité*

Other

2021–2022 **Counselor for Gylfi Porsteinn**, *Paris Graduate School of Mathematical Sciences*

juin 2021– **Contribution to the development of the project ical-uf**, *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.

ongoing **Peer reviews (reports and/or opinions)**

Adv. Math. • Alg. Geom. Topol. • Comm. Math. Phys. • Compos. Math. • Geom. Topol. • Homol. Homot. Appl. • J. Algebra • J. Éc. Polytech. Math. • J. Homotopy Relat. Struct. • J. Lond. Math. Soc. • Lett. Math. Phys. • Proc. Roy. Soc. Edinburgh Sect. A • Q. J. Math. • Selecta Math.

ongoing **Writing of abstracts for zbMath Open**

Talks

juin 2022 **Barcelona Conference on Higher Structures**, *Centre de Recerca Matemàtica (CRM)*

mai 2022 **Topology Seminar**, *Northeastern University*

avr. 2022 **Topology Seminar**, *Johns Hopkins University*

mars 2022 **Topology Seminar**, *University of Virginia*

mars 2022 **Raconte moi...**, *École Normale Supérieure*, Département de Mathématiques et Applications

janv. 2022 **Third workshop of the ANR project ALMaRe**, *Institut de Mathématiques de Jussieu–Paris Rive Gauche (IMJ-PRG)*

janv. 2022 **Opening workshop of the ANR project HighAGT**, *Institut Henri Poincaré (IHP)*

oct. 2021 **Colloque 2021 du GDR Topologie Algébrique**, *Université de Strasbourg*

juin 2021 **Séminaire de l'équipe Topologie Algébrique**, *Université Sorbonne Paris-Nord*

juin 2021 **Viva Talbot**, *MIT*, online

mai 2021 **Algebra and Topology Seminar**, *Københavns Universitet*, online

mai 2021 **Topology and Geometry seminar**, *University of Haifa*, online

mars 2021 **Topology Seminar**, *Massachusetts Institute of Technology (MIT)*, online

févr. 2021 **Research Seminar on Algebraic Topology**, *Universität Hamburg*, online

janv. 2021 **Séminaire Algèbre et topologie**, *Université de Strasbourg*, online

oct. 2020 **Topology seminar**, *Northeastern University*, online

avr. 2020 **Toric Topology Research Seminar**, *Institut Fields*, online

févr. 2020 **Málaga & Topology Meeting**, *Universidad de Málaga*

janv. 2020 **Seminar**, *Aarhus Universitet*

déc. 2019 **Opening workshop of the OCHoTop project**, *École Polytechnique Fédérale de Lausanne (EPFL)*

nov. 2019 **Journée de topologie**, *Université de Picardie Jules Verne*

juil. 2019 **Algebraic Topology Seminar**, *Université catholique de Louvain*

mai 2019 **Higher Homotopy Algebras in Topology**, *Max-Planck-Institut für Mathematik (MPIM)*

mai 2019 **Topology Seminar**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*

janv. 2019 **Higher Structures**, *Centre International de Rencontres Mathématiques (CIRM)*

déc. 2018 **Stockholm Topology Seminar**, *Stockholm Universitet & KTH*

nov. 2018 **Geometry & Topology Seminar**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*

- juin 2018 **Derived Geometry and Higher Categorical Structures in Geometry and Physics (junior speaker)**, *Fields Institute*
- juin 2018 **Colloque du département**, *University of Regina*
- mai 2018 **Graph Complexes, Configuration Spaces and Manifold Calculus**, *University of British Columbia*
- déc. 2017 **Topology, Geometry, and Algebra seminar**, *Université de Nantes*
- déc. 2017 **Algebra and Topology seminar**, *Université de Strasbourg*
- nov. 2017 **Mathematical Physics and Algebraic Topology Seminar**, *Université d'Angers*
- nov. 2017 **Homotopy in Algebraic Geometry Seminar**, *Université Paul Sabatier*
- oct. 2017 **Singular Spaces Geometry Seminar (× 2)**, *Université de Lille*
- oct. 2017 **Séminaire Itinérant de Catégories**, *Université du Littoral Côte d'Opale*
- août 2017 **Talks in mathematical physics**, *ETH Zürich*
- juil. 2017 **Young Topologists Meeting 2017**, *Stockholm Universitet & KTH*
- mai 2017 **Singular Spaces Geometry Seminar (× 2)**, *Université de Lille*
- févr. 2017 **Conference for Young researchers in homotopy theory and categorical structures**, *Max-Planck-Institut für Mathematik (MPIM)*
- janv. 2017 **Algebraic Topology Seminar**, *Université catholique de Louvain*
- nov. 2016 **Algebraic Topology Seminar**, *Université Paris 13*
- oct. 2016 **Conference in the honour of Saïd Zarati**, *Institut des Hautes Études à Tunis*
- oct. 2016 **Meeting of the GDR Algebraic Topology and Applications**, *Université de Picardie Jules Verne*
- sept. 2016 **Topology Seminar**, *Université de Lille*
- juin 2016 **Talks in Mathematical Physics**, *ETH Zürich*
- avr. 2016 **Topology Seminar**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*
- déc. 2015 **PhD students' seminar**, *Université de Lille*
- déc. 2015 **PhD students' seminar**, *Université de Picardie Jules Verne*
- oct. 2015 **Algebraic Topology seminar**, *Université catholique de Louvain*
- sept. 2015 **Topology Seminar**, *Université de Lille*

Teaching

- 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 MIASHS*, lectures + organisation + exercise sessions, 18+5+18 h
- 2021–2022 **Homotopy II**, *M2 Fundam. Math*, lectures, 24h
- Algorithms and Programming**, *L2 Maths*, Exercise sessions + Labs, 42h
- Mathematical Reasoning 2**, *L1 MIASHS*, lectures + organisation + exercise sessions, 18+5+18 h
- 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, 56.5 h)*
- 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 (8 h)*
Introduction to Homotopy Theory, *M2 Fundam. Math*, lectures, 24h
Elementary Algebra and Analysis 1 + Mathematical Reasoning 1, *L1 MIASHS*, 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

- mai 2022 Ben Knudsen @ Northeastern University (5 days).
avr. 2022 Owen Gwilliam @ UMass Amherst (5 days).
juil. 2019 Pascal Lambrechts @ Université catholique de Louvain (5 days).
juin 2019 Thomas Willwacher @ ETH Zurich (5 days).
juin 2018 Don Stanley @ University of Regina (10 days).
août 2017 Thomas Willwacher @ ETH Zurich (5 days).
janv. 2017 Pascal Lambrechts @ Université catholique de Louvain (5 days).
juin 2016 Thomas Willwacher @ ETH Zurich (4 days).

Conferences attended

- 2022 Barcelona Conference on Higher Structures (Centre de Recerca Matemàtica, Barcelona) • Derived Geometry Workshop (Centre de Recerca Matemàtica, Barcelona)
• Rencontre du projet ANR HighAGT (Institut Henri Poincaré, Paris).
- 2021 Colloque 2021 du GDR Topologie Algébrique et Applications (Université de Strasbourg) • Mid-term workshop of the OCHoTop project (Université de Lille).
- 2020 ~~Toric Topology and Polyhedral Products (Fields Institute)~~ [cancelled due to Covid19]
• Málaga & Topology Meeting (Universidad de Málaga).
- 2019 Opening workshop of the OCHoTop project (EPFL) • Journée de topologie (Université de Picardie Jules Verne) • Colloque 2019 du GDR Topologie Algébrique et Applications (Université d'Artois) • Groupe de travail : Valeurs zêta multiples en quantification par déformation (Université de Montpellier) • SYM 10 Years Old (Københavns Universitet) • Topologie de basse dimension : Colloque en l'honneur de Christian Blanchet (Université Paris Diderot) • Higher Homotopy Algebras in Topology (Max-Planck-Institut für Mathematik, Bonn) • Structures Supérieures (Centre International de Rencontres Mathématiques, Luminy) • Higher Structures in Holomorphic and Topological Field Theory (Institut des Hautes Études Scientifiques).
- 2018 New trends in K-theory and homotopy theory – A conference in honor of Max Karoubi's 80th birthday (Institut Henri Poincaré, Paris) • Colloque 2018 du GDR Topologie Algébrique (Université de Montpellier) • Derived Geometry and Higher Categorical Structures in Geometry and Physics (Fields Institute) • Graph Complexes, Configuration Spaces and Manifold Calculus (University of British Columbia) • Rational Homotopy and its Applications (Université de Lille).

- 2017 Colloque 2017 du GDR Topologie Algébrique (Université Paris Diderot) • Séminaire Itinérant de Catégories (Université du Littoral Côte d'Opale) • Journée des doctorants du Nord-Pas-de-Calais (Université du Littoral Côte d'Opale) • Workshop on Persistent Homology (Université de Montpellier) • Young Topologists Meeting 2017 (Stockholm Universitet & KTH) • Algebraic Topology and Representation Theory (Université de Lille) • Derived Algebraic Geometry and Interactions (Université de Toulouse) • Fourth Young Mathematicians Colloquium (Vrije Universiteit Brussel) • Lens Topology and geometry 2017 (Université d'Artois, Lens) • Workshop on Quantum Topology (Université de Lille) • Conference for Young researchers in homotopy theory and categorical structures (Max-Planck-Institut für Mathematik, Bonn).
- 2016 Conference in the honour of Saïd Zarati (Institut des Hautes Études à Tunis) • Colloque 2016 du GDR Topologie Algébrique et Applications (Université de Picardie Jules Verne) • Young Topologists Meeting 2016 (Københavns Universitet) • Workshop: Factorization Algebras and Functorial Field Theories (Mathematisches Forschungsinstitut Oberwolfach) • Séminaire Itinérant de Catégories (Université de Lille).
- 2015 Colloque 2015 du GDR Topologie Algébrique et Applications (Université de Toulouse-3) • Lens Topology and geometry 2015 (Université d'Artois, Lens) • Introductory School – Homotopy theory, manifolds, and field theories (Hausdorff Research Institute for Mathematics) • Séminaire du projet ANR HOGT (Université de Strasbourg) • Second Young Mathematicians Colloquium (KU Leuven Kulak) • Séminaire Itinérant de Catégories (Université du Littoral Côte d'Opale, Calais) • Masterclass : K-théorie topologique et applications (Université de Strasbourg) • Séminaire du projet ANR HOGT (Université de Lille).
- 2014 Colloque 2014 du GDR Topologie Algébrique et Applications (Université Blaise Pascal) • Colloque de clôture du projet ANR HOGT (Université de Nice) • Espaces des lacets en géométrie et topologie (Université de Nantes) • Young Topologists Meeting 2014 (Københavns Universitet) • Young Mathematicians Colloquium (Université de Lille) • Séminaire du projet ANR HOGT (Université de Lille).
- 2013 Gelfand Centennial Conference: A View of 21st Century Mathematics (Massachusetts Institute of Technology) • Conference in Algebra and Topology celebrating Lionel Schwartz's 60th birthday (Université de Nantes).