

# Najib Idrissi

## Curriculum Vitæ

Université de Paris – IMJ-PRG  
8 place Aurélie Nemous  
F-75013 Paris, France  
☎ (+33) 01 57 27 91 16  
✉ najib.idrissi-kaitouni@imj-prg.fr  
🌐 idrissi.eu/en  
May 14, 2019

### Academic Career

- Since Sept. 2018 **Maître de conférences**, *Université de Paris\** / *Institut de Mathématiques de Jussieu-Paris Rive Gauche (IMJ-PRG)*, Paris, France.  
\*. Formerly Université Paris Diderot.
- 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.  
Thesis defended on November 17th, 2017. Advisor: Benoit Fresse.  
Title: *Operadic Formality and Homotopy of Configuration Spaces*.
- Sept. 2011–Aug. 2015 **Élève fonctionnaire stagiaire**, *École Normale Supérieure de Paris*, Paris, France.  
2014–2015: Research internship in preparation of a PhD, Université Lille-1.  
2013–2014: Master's degree in Fundamental Mathematics, Université Paris Diderot.  
Fall 2013: Research internship in algebraic topology, MIT.  
Ranked 1<sup>st</sup> on the “INFO” 2011 competitive entrance exam.

### Research

#### Publications

- [1] 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.
- [2] 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

- [3] Ricardo Campos, Julien Ducoulombier, Najib Idrissi, and Thomas Willwacher. *A model for framed configuration spaces of points*. 2018. arXiv: 1807.08319. Submitted. 27 pp.
- [4] Ricardo Campos, Najib Idrissi, Pascal Lambrechts, and Thomas Willwacher. *Configuration Spaces of Manifolds with Boundary*. 2018. arXiv: 1802.00716. Submitted. 107 pp.
- [5] Najib Idrissi. *Curved Koszul Duality for Algebras over Unital Operads*. 2018. arXiv: 1805.01853. Submitted. 33 pp.
- [6] Najib Idrissi. *Formality of a higher-codimensional Swiss-Cheese operad*. 2018. arXiv: 1809.07667. Submitted. 40 pp.

#### Other documents

- [7] 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>.
- [8] Najib Idrissi. “Opérades 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/operades-et-structures-commutatives-a-homotopie-pres/>.
- [9] Najib Idrissi. “Homologie et complexes de déformations d’opérades  $E_n$ ”. Master’s thesis. Université Paris Diderot, 2014.

### Service

- Since Oct. 2018 **One of the organizers of the Topology Seminar**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*, Paris, France.
- Jan. 2019–June 2019 **Organization of a working seminar on homological stability**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*, Paris, France.
- Oct. 2017 **Participation to the organization of the introductory day for young researchers**, *Colloque 2017 du GDR Topologie Algébrique*, Paris, France.
- 2016–2017 **One of the organizers of the PhD students’ seminar**, *Laboratoire Paul Painlevé*, Lille, France.
- ongoing **Peer reviews.**  
Algebraic & Geometric Topology, Communications in Mathematical Physics, Letters in Mathematical Physics, Royal Society of Edinburgh: Proceedings A, Selecta Mathematica
- ongoing **Writing of abstracts for Zentralblatt MATH.**

## Funding

### Obtained

- 2019 Holder of an *Exploratory Project for First Support “Young Researcher”* (PEPS JCJC), CNRS / Insmi, 3500 €.
- 2015–2018 Specific doctoral contract “*normalien*”, École Normale Supérieure de Paris.

### Participation

- Feb. 2018–Aug. 2018 Postdoc contract funded by the ERC StG 678156–GRAPHCPX. PI: Thomas Willwacher.
- 2014–2015 Member of the ANR project “*Homotopie algébrique, Opérades et groupes de Grothendieck–Teichmüller*” (HOGT). Coordinator: Benoît Fresse.

## Talks

### Invited

- May 2019 **Higher Homotopy Algebras in Topology**, *Max-Planck-Institut für Mathematik*, Bonn, Germany.  
Curved Koszul duality for algebras over unital operads
- Jan. 2019 **Higher Structures**, *Centre International de Rencontres Mathématiques*, Luminy, France.  
Configuration spaces and operads
- June 2018 **Derived Geometry and Higher Categorical Structures in Geometry and Physics**, *Fields Institute*, Toronto, Canada.  
Curved Koszul Duality for Algebras over Unital Operads (junior speaker at the summer school)
- May 2018 **Graph Complexes, Configuration Spaces and Manifold Calculus**, *University of British Columbia*, Vancouver, Canada.  
Configuration Spaces of Manifolds with Boundary
- Oct. 2017 **Séminaire Itinérant de Catégories**, *Université du Littoral Côte d’Opale*, Calais, France.  
L’opérade Swiss-Cheese et le centre de Drinfeld
- Oct. 2016 **Conference in the honour of Saïd Zarati**, *Institut des Hautes Études à Tunis*, Tunis, Tunisia.  
The Lambrechts–Stanley Model of Configuration Spaces

### Contributed

- July 2017 **Young Topologists Meeting 2017**, *Stockholm Universitet & KTH*, Stockholm, Sweden.  
The Lambrechts–Stanley Model of Configuration Spaces
- Feb. 2017 **Conference for Young researchers in homotopy theory and categorical structures**, *Max-Planck-Institut für Mathematik*, Bonn, Germany.  
The Lambrechts–Stanley Model of Configuration Spaces

Oct. 2016 **2016 Meeting of the GDR Algebraic Topology and Applications**, *Laboratoire Amiénois de Mathématique Fondamentale et Appliquée*, Amiens, France.  
The Lambrechts–Stanley Model of Configuration Spaces

### Seminars

- July 2019 **Algebraic Topology Seminar**, *Université catholique de Louvain / Institut de recherche en mathématique et physique*, Louvain-la-Neuve, Belgium.  
Homologie de factorisation et espaces de configuration
- May 2019 **Topology Seminar**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*, Paris, France.  
Homologie de factorisation et espaces de configuration
- Dec. 2018 **Stockholm Topology Seminar**, *Stockholm Universitet & KTH*, Stockholm, Sweden.  
Configuration spaces and Operads
- Nov. 2018 **Geometry & Topology Seminar**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*, Paris, France.  
Espaces de configuration et Opérades
- June 2018 **Colloque du département**, *University of Regina*, Regina (SK), Canada.  
Configuration Spaces and Graphs Complexes
- Dec. 2017 **Topology, Geometry, and Algebra seminar**, *Université de Nantes*, Nantes, France.  
Espaces de configuration de variétés compactes
- Dec. 2017 **Algebra and Topology seminar**, *Université de Strasbourg*, Strasbourg, France.  
Espaces de configuration de variétés compactes
- Nov. 2017 **Mathematical Physics and Algebraic Topology Seminar**, *Université d'Angers*, Angers, France.  
Espaces de configuration de variétés compactes
- Nov. 2017 **Homotopy in Algebraic Geometry Seminar**, *Université Paul Sabatier*, Toulouse, France.  
Espaces de configuration de variétés compactes
- Oct. 2017 **Singular Spaces Geometry Seminar**, *Université Lille-1*, Lille, France.  
Introduction à la théorie de l'homotopie rationnelle
- Oct. 2017 **Singular Spaces Geometry Seminar**, *Université Lille-1*, Lille, France.  
L'opérade Swiss-Cheese et le centre de Drinfeld
- Aug. 2017 **Talks in mathematical physics**, *ETH Zürich*, Zürich, Switzerland.  
Configuration Spaces of Compact Manifolds
- May 2017 **Singular Spaces Geometry Seminar**, *Université Lille-1*, Lille, France.  
Le modèle de Lambrechts–Stanley des espaces de configuration
- May 2017 **Singular Spaces Geometry Seminar**, *Université Lille-1*, Lille, France.  
La compactification de Fulton–MacPherson des espaces de configuration
- Jan. 2017 **Algebraic Topology Seminar**, *Université catholique de Louvain / Institut de recherche en mathématique et physique*, Louvain-la-Neuve, Belgium.  
Le modèle de Lambrechts–Stanley des espaces de configuration
- Nov. 2016 **Algebraic Topology Seminar**, *Université Paris 13*, Paris, France.  
Le modèle de Lambrechts–Stanley des espaces de configuration
- Sept. 2016 **Topology Seminar**, *Université Lille-1*, Lille, France.  
Le modèle de Lambrechts–Stanley des espaces de configuration
- June 2016 **Talks in Mathematical Physics**, *ETH Zürich*, Zürich, Switzerland.  
Swiss-Cheese operad and Drinfeld center
- Apr. 2016 **Topology Seminar**, *Institut de Mathématiques de Jussieu-Paris Rive Gauche*, Paris, France.  
L'opérade Swiss-Cheese et le centre de Drinfeld

- Dec. 2015 **PhD students' seminar**, *Laboratoire Paul Painlevé*, Lille, France.  
Opérades
- Dec. 2015 **PhD students' seminar**, *Laboratoire Amiénois de Mathématique Fondamentale et Appliquée*, Amiens, France.  
Opérades
- Oct. 2015 **Algebraic Topology seminar**, *Université catholique de Louvain / Institut de recherche en mathématique et physique*, Louvain-la-Neuve, Belgium.  
L'opérade Swiss-Cheese et le centre de Drinfeld
- Sept. 2015 **Topology Seminar**, *Université Lille 1 / Laboratoire Paul Painlevé*, Lille, France.  
L'opérade Swiss-Cheese et le centre de Drinfeld

## Teaching

- 2019–2020 Homotopy Theory, M2 Fundam. Math (lectures, 24h) • Elementary Algebra and Analysis 1 + Mathematical Reasoning 1, L1 MIASHS (lecture+exercises, 56.5h) • Elementary Algebra and Analysis 2, L1 Chemistry (exercises, 36h) • Algorithms and Programmation, L2 (exercises+labs, 42h).
- 2018–2019 Elementary Algebra and Analysis 1, L1 MIASHS (lecture+exercises, 72h) • Elementary Algebra and Analysis 2, L1 Chemistry (exercises, 36h).
- 2017–2018 Calculus 1, L1 MASS (exercises, 36h) • Fundamental mathematics 1, L1 SESI (oral exams & tutoring, 10h).
- 2016–2017 Matrix calculus, L2 econ-management (exercises, 36h) • Calculus 1, L1 econ-management (exercises, 15h) • Calculus 1, L1 MASS (exercises, 15h).
- 2015–2016 Fundamental mathematics 2, L1 SESI (exercises, 66h).

## Research visits

- June 2019\* (5 d.) ETH Zurich – Thomas Willwacher.
- June 2018 (10 d.) University of Regina – Don Stanley.
- Aug. 2017 (5 d.) ETH Zurich – Thomas Willwacher.
- Jan. 2017 (5 d.) Université catholique de Louvain – Pascal Lambrechts.
- June 2016 (4 d.) ETH Zurich – Thomas Willwacher.

## Conferences, workshops and thematic schools attended

- 2019 *Topologie de basse dimension : Colloque en l'honneur de Christian Blanchet* (Université Paris Diderot). *SYM 10 Years Old* (Københavns Universitet). *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 University & 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 Lille-1). *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 Lille-1)..
- 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 Lille-1).
- 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 Lille-1). *Séminaire du projet ANR HOGT* (Université Lille-1).
- 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).

★ = future.