# 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 ७ 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

Colloque 2017 du GDR Topologie Algébrique, Paris, France. One of the organizers of the PhD students' seminar, Laboratoire Paul Painlevé, Lille, 2016-2017 France. ongoing Peer reviews. Algebraic & Geometric Topology, Communications in Mathematical Physics, Letters in Mathematical Physics, Royal Society of Edinburgh: Proceedings A, Selecta Mathematica Writing of abstracts for Zentralblatt MATH. ongoing **Funding** Obtained 2019 Holder of an Exploratory Project for First Support "Young Researcher" (PEPS JCJC), CNRS / Insmi, 3500 €. Specific doctoral contract "normalien", École Normale Supérieure de Paris. 2015-2018 **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: Benoit 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 Higher Structures, Centre International de Rencontres Mathématiques, Luminy, France. Jan. 2019 Configuration spaces and operads Derived Geometry and Higher Categorical Structures in Geometry and Physics, June 2018 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 Conference for Young researchers in homotopy theory and categorical struc-Feb. 2017 tures, Max-Planck-Institut für Mathematik, Bonn, Germany. The Lambrechts-Stanley Model of Configuration Spaces

One of the organizers of the Topology Seminar, Institut de Mathématiques de Jussieu-

Organization of a working seminar on homological stability, Institut de Mathéma-

Participation to the organization of the introductory day for young researchers,

Paris Rive Gauche, Paris, France.

tiques de Jussieu-Paris Rive Gauche, Paris, France.

Since Oct. 2018

Oct. 2017

Jan. 2019-June 2019

Oct. 2016	<b>2016 Meeting of the GDR Algebraic Topology and Applications</b> , <i>Laboratoire Amiénois de Mathématique Fondamentale et Appliquée</i> , Amiens, France. The Lambrechts–Stanley Model of Configuration Spaces
	Seminars
May 2019	<b>Topology Seminar</b> , <i>Institut de Mathématiques de Jussieu-Paris Rive Gauche</i> , 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	<b>Geometry &amp; Topology Seminar</b> , <i>Institut de Mathématiques de Jussieu-Paris Rive Gauche</i> , Paris, France. Espaces de configuration et Opérades
June 2018	Colloque du département, <i>University of Regina</i> , Regina (SK), Canada. Configuration Spaces and Graphs Complexes
Dec. 2017	<b>Topology, Geometry, and Algebra seminar</b> , <i>Université de Nantes</i> , Nantes, France. Espaces de configuration de variétés compactes
Dec. 2017	<b>Algebra and Topology seminar</b> , <i>Université de Strasbourg</i> , Strasbourg, France. Espaces de configuration de variétés compactes
Nov. 2017	Mathematical Physics and Algebraic Topology Seminar, <i>Université d'Angers</i> , Angers, France. Espaces de configuration de variétés compactes
Nov. 2017	<b>Homotopy in Algebraic Geometry Seminar</b> , <i>Université Paul Sabatier</i> , Toulouse, France.  Espaces de configuration de variétés compactes
Oct. 2017	Singular Spaces Geometry Seminar, <i>Université Lille-1</i> , Lille, France. Introduction à la théorie de l'homotopie rationnelle
Oct. 2017	<b>Singular Spaces Geometry Seminar</b> , <i>Université Lille-1</i> , Lille, France. L'opérade Swiss-Cheese et le centre de Drinfeld
Aug. 2017	<b>Talks in mathematical physics</b> , <i>ETH Zürich</i> , Zürich, Switzerland. Configuration Spaces of Compact Manifolds
May 2017	<b>Singular Spaces Geometry Seminar</b> , <i>Université Lille-1</i> , Lille, France. Le modèle de Lambrechts–Stanley des espaces de configuration
May 2017	<b>Singular Spaces Geometry Seminar</b> , <i>Université Lille-1</i> , 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	<b>Algebraic Topology Seminar</b> , <i>Université Paris 13</i> , Paris, France. Le modèle de Lambrechts–Stanley des espaces de configuration
Sept. 2016	<b>Topology Seminar</b> , <i>Université Lille-1</i> , Lille, France. Le modèle de Lambrechts–Stanley des espaces de configuration
June 2016	<b>Talks in Mathematical Physics</b> , <i>ETH Zürich</i> , Zürich, Switzerland. Swiss-Cheese operad and Drinfeld center
Apr. 2016	<b>Topology Seminar</b> , <i>Institut de Mathématiques de Jussieu-Paris Rive Gauche</i> , 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 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 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.