# Najib Idrissi

# Curriculum Vitæ

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## Career

Since 09/2018 **Maître de conférences**, Université Paris Diderot / Institut de Mathématiques de Jussieu-Paris Rive Gauche, Paris, France.

02/2018–08/2018 **Postdoctoral researcher**, ETH Zürich / D-MATH, Zürich, Switzerland.

Supervisor: Thomas Willwacher. Funded by ERC StG 678156-GRAPHCPX.

09/2015-01/2018 **Doctorate in Mathematics**, Université Lille 1 / Laboratoire Paul Painlevé, Lille, France.

Thesis defended on November 17th, 2017. Advisor: Benoit Fresse.

Title: Operadic Formality and Homotopy of Configuration Spaces.

09/2011-08/2015 Élève fonctionnaire stagiaire, École Normale Supérieure de Paris, Paris, France.

Ranked 1st on the "INFO" competitive entrance exam.

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, Massachusetts Institute of Technology.

### Research

#### **Publications**

- [1] Najib Idrissi. "The Lambrechts-Stanley Model of Configuration Spaces". In: *Invent. Math* (2018), pp. 1–68. ISSN: 1432-1297. DOI: 10.1007/s00222-018-0842-9. arXiv: 1608.08054. In press.
- [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.

**Teaching** 

2018-2019	Elementary Algebra and Analysis 1, L1 MIASHS (lecture+exercises, 90h); 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)
	Funding
2019	Exploratory Project, First Support "Young Researcher" (PEPS JCJC), CNRS / Insmi, 3500 €
2015-2018	Specific doctoral contract "normalien", École Normale Supérieure de Paris
05/2016	Oberwolfach Leibniz Graduate Students (for "Factorization Algebras and Functorial Field Theories")
	Service
Since 10/2018	One of the organizers of the Topology Seminar, Institut de Mathématiques de Jussieu-Paris Rive Gauche, Paris, France.
2019	<b>Organization of a reading seminar on homological stability</b> , <i>Institut de Mathématiques de Jussieu-Paris Rive Gauche</i> , Paris, France.
10/2017	Participation to the organization of the introductory day for young researchers, Colloque 2017 du GDR Topologie Algébrique, Paris, France.
2016-2017	One of the organizer of the PhD students' seminar, Laboratoire Paul Painlevé, Lille, France.
ongoing	Peer review.
ongoing	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	
	Talks
	Invited
05/2019*	<b>Higher Homotopy Algebras in Topology</b> , <i>Max Planck Institute for Mathematics (MPIM)</i> , Bonn, Germany.  TBA
01/2019	<b>Higher Structures</b> , Centre international de rencontres mathématiques (CIRM), Luminy, France. Configuration spaces and operads
06/2018	Derived Geometry and Higher Categorical Structures in Geometry and Physics (junior speaker at the summer school), Fields Institute, Toronto, Canada.  Curved Koszul Duality for Algebras over Unital Operads
05/2018	<b>Graph Complexes, Configuration Spaces and Manifold Calculus</b> , <i>University of British Columbia</i> , Vancouver, Canada.  Configuration Spaces of Manifolds with Boundary
10/2017	Séminaire Itinérant de Catégories, Université du Littoral Côte d'Opale, Calais, France.
-,,	L'opérade Swiss-Cheese et le centre de Drinfeld
10/2016	<b>Conference in the honour of Saïd Zarati</b> , <i>Institut des Hautes Études (IHET)</i> , Tunis, Tunisia. The Lambrechts-Stanley Model of Configuration Spaces
	Contributed
07/2017	<b>Young Topologists Meeting 2017</b> , Stockholm University + Royal Institute of Technology (KTH),

Stockholm, Sweden.

The Lambrechts-Stanley Model of Configuration Spaces

02/2017	Conference for Young researchers in homotopy theory and categorical structures, Max Planck Institute for Mathematics (MPIM), Bonn, Germany.  The Lambrechts-Stanley Model of Configuration Spaces
10/2016	<b>2016 Meeting of the GDR Algebraic Topology and Applications</b> , <i>Université de Picardie Jules Verne – LAMFA</i> , Amiens, France. The Lambrechts-Stanley Model of Configuration Spaces
	Seminars
12/2018	<b>Stockholm Topology Seminar</b> , <i>Stockholm University + Royal Institute of Technology (KTH)</i> , Stockholm, Sweden.
11/2018	Configuration spaces and Operads  Geometry & Topology Seminar, IMJ-PRG, Paris, France.  Espaces de configuration et Opérades
06/2018	<b>Colloque du département</b> , <i>University of Regina</i> , Regina (SK), Canada. Configuration Spaces and Graphs Complexes
12/2017	<b>Topology, Geometry, and Algebra seminar</b> , <i>Université de Nantes</i> , Nantes, France. Espaces de configuration de variétés compactes
12/2017	Algebra and Topology seminar, <i>Université de Strasbourg</i> , Strasbourg, France. Espaces de configuration de variétés compactes
11/2017	Mathematical Physics and Algebraic Topology Seminar, Université d'Angers, Angers, France. Espaces de configuration de variétés compactes
11/2017	<b>Homotopy in Algebraic Geometry Seminar</b> , <i>Université Paul Sabatier</i> , Toulouse, France. Espaces de configuration de variétés compactes
10/2017	Singular Spaces Geometry Seminar, <i>Université Lille 1</i> , Lille, France. Introduction à la théorie de l'homotopie rationnelle
10/2017	<b>Singular Spaces Geometry Seminar</b> , <i>Université Lille 1</i> , Lille, France. L'opérade Swiss-Cheese et le centre de Drinfeld
08/2017	<b>Talks in mathematical physics</b> , <i>ETH Zürich</i> , Zürich, Switzerland. Configuration Spaces of Compact Manifolds
05/2017	Singular Spaces Geometry Seminar, <i>Université Lille 1</i> , Lille, France. Le modèle de Lambrechts-Stanley des espaces de configuration
05/2017	<b>Singular Spaces Geometry Seminar</b> , <i>Université Lille 1</i> , Lille, France. La compactification de Fulton-MacPherson des espaces de configuration
01/2017	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
11/2016	Algebraic Topology Seminar, Université Paris 13, Paris, France. Le modèle de Lambrechts-Stanley des espaces de configuration
09/2016	<b>Topology Seminar</b> , <i>Université Lille 1</i> , Lille, France. Le modèle de Lambrechts-Stanley des espaces de configuration
06/2016	<b>Talks in Mathematical Physics</b> , <i>ETH Zürich</i> , Zürich, Switzerland. Swiss-Cheese operad and Drinfeld center
04/2016	<b>Topology Seminar</b> , <i>IMJ-PRG</i> , Paris, France. L'opérade Swiss-Cheese et le centre de Drinfeld
12/2015	<b>PhD students' seminar</b> , <i>Université Lille 1 – Laboratoire Paul Painlevé</i> , Lille, France. Opérades
12/2015	<b>PhD students' seminar</b> , <i>Université de Picardie Jules Verne – LAMFA</i> , Amiens, France. Opérades

- 10/2015 **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
- 09/2015 **Topology Seminar**, Université Lille 1 Laboratoire Paul Painlevé, Lille, France.

L'opérade Swiss-Cheese et le centre de Drinfeld

# Research visits

- 06/2019\*, 5 days ETH Zurich Thomas Willwacher
  06/2018, 10 days University of Regina Don Stanley
  08/2017, 5 days ETH Zurich Thomas Willwacher
- 01/2017, 5 days Université catholique de Louvain Pascal Lambrechts
- 06/2016, 4 days ETH Zurich Thomas Willwacher

# Conferences, workshops and thematic schools attended

	Conferences, workshops and thematic schools attended
06/2019*	SYM 10 Years Old @ Københavns Universitet
05/2019*	Higher Homotopy Algebras in Topology @ Max Planck Institute for Mathematics (MPIM, Bonn)
01/2019	Higher Structures @ Centre international de rencontres mathématiques (CIRM, Luminy)
01/2019	Higher Structures in Holomorphic and Topological Field Theory @ Institut des Hautes Études Scientifiques (Paris-Saclay)
10/2018	New trends in K-theory and homotopy theory – A conference in honor of Max Karoubi's 80th birthday @ Institut Henri Poincaré (Paris)
10/2018	Colloque 2018 du GDR Topologie Algébrique @ Université de Montpellier
06/2018	Derived Geometry and Higher Categorical Structures in Geometry and Physics @ Fields Institute (Toronto)
05/2018	Graph Complexes, Configuration Spaces and Manifold Calculus @ University of British Columbia (Vancouver)
01/2018	Rational Homotopy and its Applications @ Université de Lille
10/2017	Colloque 2017 du GDR Topologie Algébrique @ Université Paris 7
10/2017	Séminaire Itinérant de Catégories @ Université du Littoral Côte d'Opale (Calais)
09/2017	Journée des doctorants du Nord-Pas-de-Calais @ Université du Littoral Côte d'Opale (Calais)
07/2017	Workshop on Persistent Homology @ Université de Montpellier
07/2017	Young Topologists Meeting 2017 @ Stockholm University + Royal Institute of Technology (KTH)
06/2017	Algebraic Topology and Representation Theory @ Université de Lille
06/2017	Derived Algebraic Geometry and Interactions @ Université de Toulouse
06/2017	Fourth Young Mathematicians Colloquium @ Vrije Universiteit Brussel
05/2017	Lens Topology and geometry 2017 @ Université d'Artois (Lens)
03/2017	Workshop on Quantum Topology @ Université Lille 1
02/2017	Conference for Young researchers in homotopy theory and categorical structures @ Max Planck Institute for Mathematics (MPIM Bonn)
10/2016	Conference in the honour of Saïd Zarati @ IHET (Tunis)
10/2016	Colloque 2016 du GDR Topologie Algébrique et Applications @ Université de Picardie Jules Verne (Amiens)
07/2016	Young Topologists Meeting 2016 @ Københavns Universitet
05/2016	Workshop: Factorization Algebras and Functorial Field Theories @ Mathematisches Forschungsinstitut Oberwolfach
03/2016	Séminaire Itinérant de Catégories @ Université Lille 1

10/2015	Colloque 2015 du GDR Topologie Algébrique et Applications @ Université de Toulouse-3
06/2015	Lens Topology and geometry 2015 @ Université d'Artois (Lens)
05/2015	Introductory School – Homotopy theory, manifolds, and field theories @ Hausdorff Research Institute for Mathematics
03/2015	Séminaire du projet ANR HOGT @ Université de Strasbourg
03/2015	Second Young Mathematicians Colloquium @ KU Leuven Kulak
03/2015	Séminaire Itinérant de Catégories @ Université du Littoral Côte d'Opale (Calais)
02/2015	Masterclass : K-théorie topologique et applications @ Université de Strasbourg
01/2015	Séminaire du projet ANR HOGT @ Université Lille 1
10/2014	Colloque 2014 du GDR Topologie Algébrique et Applications @ Université Blaise Pascal (Clermont-Ferrand)
09/2014	Colloque de clôture du projet ANR HOGT @ Université de Nice
09/2014	Espaces des lacets en géométrie et topologie @ Université de Nantes
06/2014	Young Topologists Meeting 2014 @ Københavns Universitet
05/2014	Young Mathematicians Colloquium @ Université Lille 1
01/2014	Séminaire du projet ANR HOGT @ Université Lille 1
09/2013	Gelfand Centennial Conference: A View of 21st Century Mathematics @ Massachusetts Institute of Technology
05/2013	Conference in Algebra and Topology celebrating Lionel Schwartz's sixtieth birthday @ Université de Nantes
(*:	Future)