



# OMAR MOHSEN

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French

Maître de conférence at universite of Paris-Saclay

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## SCIENTIFIC CAREER

<b>Maître de conférence (research/teaching position)</b>	September. 2019 – Current
University of Paris-Saclay	France
<b>Postdoc</b>	September. 2019 – August 2021
University of Muenster	Germany
<b>ATER (Teaching Position)</b>	October 2018 – August 2019
Paris Diderot university	France

## EDUCATION

<b>PhD</b>   <i>Thesis defended in October 2018 under the direction of G. Skandalis</i>	October 2015 – October 2018
Paris Diderot university (currently Paris-cité university)	France
<b>ENS Diploma</b>	2012 – 2015
École normale supérieure de Paris	France
<b>Master</b>	2013 – 2015
University of Paris-Saclay	France

## PUBLISHED AND ACCEPTED FOR PUBLICATION ARTICLES

<b>Higher order derivations on <math>C^*</math>-algebras and applications to smooth functional calculus</b>	2024
Journal of functional analysis	
<b>Tangent groupoid and tangent cones in sub-Riemannian geometry</b>	2024
Duke Mathematical Journal	
<b>Witten deformation using Lie groupoids</b>	2021
Advances in Mathematics	
<b>The convolution algebra of Schwarz kernels on a singular foliation</b>	2020
Journal of Operator theory	with Androulidakis and Yuncken
<b>On the deformation groupoid of the inhomogeneous pseudo-differential calculus</b>	2020
Bulletin of the London Mathematical society	
<b>Index theorem for inhomogeneous hypoelliptic differential operators</b>	2020
Muenster Journal of Mathematics	
<b>Chern Simons invariants in <math>KK</math> theory</b>	2018
Journal of functional analysis	

## PREPUBLICATION ARTICLES

<b>Remarks on a groupoid approach to the Wodzicki residue and the Kontsevich-Vishik trace</b>	2023
<b>On the index of maximally hypoelliptic differential operators</b>	2022
<b>A pseudodifferential calculus for maximally hypoelliptic operators and the Helffer-Nourrigat conjecture</b> with Androulidakis and Yuncken	2022
<b>Blow-up groupoid of singular foliations</b>	2022

## SUPERVISION

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<b>Moudrik Chamoux</b>	2023
Still under current supervision	M2
<b>Anatole Dedecker</b>	2023
Title: Groupes Moyennables	M1
<b>Matiss BRUNEL, Quentin GITON, Flore LE ROUX</b>	2022
Title: Le nombre de Rotation	L3

## GRANTS

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<b>ANR</b>	2023
Part of the ANR team OPART	France
<b>Région Ile de France, FSMP</b>	2015-2018
PhD Grant	France
<b>Fondation Sciences Mathématiques de Paris (FSMP)</b>	2013-2015
Bourse d'excellence (Scholarship)	France
<b>Fondation Mathématiques Jacques Hadamard (FMJH)</b>	2012
Bourse d'excellence (Scholarship)	France

## SCIENTIFIC EVALUATION

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I was referee for the following journals

1. Advances in Mathematics
2. Comptes rendus de l'académie des sciences
3. Journal of Geometry and Physics
4. Journal of noncommutative geometry
5. Journal of the Fourier institute
6. Math. Ann.
7. Muenster journal of mathematics
8. Crelle journal
9. Astérisque
10. Pacific Journal of Mathematics
11. Journal of Geometric analysis
12. Journal of Differential Equations

## SCIENTIFIC AND ADMINISTRATIVE RESPONSIBILITIES

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<b>Summer school YMC*A</b>	2021
Organisation member	Germany
<b>PhD students seminar Paris Diderot</b>	2017-2018
Organisation member	France
<b>Work group on Atiyah-Singer index theorem</b>	2014
I organised a work group in the ENS following « Seminar on Atiyah-Singer index theorem » by S. Palais	France

## SKILLS

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**Languages:** Arabic (Mother Language), English (Fluent), French (Advanced)  
**Piano:** around Grade 10 following the The RCM (Royal Conservatory of Music) grading