Mehdi Ouaki

Education

2018 **University of California**, *Berkeley*, California.
PhD under the supervision of Steven N. Evans and Fraydoun Rezakhanlou.
Primary research area : Probability theory and Partial Differential Equations.

2014–2017 **Ecole Polytechnique**, *Palaiseau*, France.
Bachelor and Master in Mathematics and Applied Mathematics.

2012-2014 **Lycee Moulay Youssef**, *Rabat*, Morocco.
Two years of preparatory classes in mathematics and physics. MPSI and MP*.

Publications

2021 **Random tesselations of the plane and Hamilton-Jacobi equations**, *with Fraydoun Rezakhanlou*, Submitted.
Available on : Preprint

2021 **Markovian structure in the concave majorant of Brownian motion**, *with Jim Pitman*, Submitted.
Available on Arxiv : 2105.11042

2020 **Scalar conservation laws with white noise initial data**, Available on Arxiv : arXiv:2012.00200., To appear in PTRF.

2020 **Two continua of embedded regenerative sets**, *with Steven N.Evans*, Available on Arxiv: arXiv:2003.05009, To appear in the volume for Ron Doney's 80th Birthday..

2019 **Excursions away from the Lipschitz minorant of a Lévy process**, *with Steven N.Evans*, Available on Arxiv : 1905.07038, To appear in AIHP.

In preparation

2021 **A kinetic theory approach to the Burgers equation with white noise initial data**, *with Fraydoun Rezakhanlou*.

2021 **Twin peaks in the directed landscape and disjointedness of geodesics**, *with Alan Hammond and Milind Hegde*.

2021 **Quasi-stationary solutions to the KPZ fixed point**, *with Jeremy Quastel*.

Invited Talks

2021 **Probability/PDE Seminar**, *Mathematics department*, Berkeley.

2021 **Probability seminar**, *Mathematics department*, Duke.

2021 **Probability seminar**, *Statistics department*, Berkeley.

2020 **Probability/PDE Seminar**, *Mathematics Department*, Berkeley.

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2020 **Probability seminar**, *Statistics Department*, Berkeley.

2019 **Probability Seminar**, *Statistics department*, Stanford.

2019 **Probability/PDE Seminar**, *Mathematics department*, Berkeley.

Related Experience

Summer 2020 **Hedge Fund Internship**, *Quantitative Researcher*, Citadel Securities, Chicago, USA.

March - August 2017 **Hedge Fund Internship**, *Quantitative Researcher*, Squarepoint Capital, London, United Kingdom.

2016–2017 **Scientific Project**, Ecole Polytechnique, with Nizar Touzi and Thibaut Mastrolia.
A project about contract theory in continuous time models, involving stochastic differential equations and optimal control.

2015–2016 **Laboratory Project**, Ecole Polytechnique, with Ugo Boscain.
A scientific project about mathematical control theory applied to a population transfer problem in quantum mechanics.

2014–2015 **Education Internship**, *Assistant Teacher*, Lycée Jean-Baptiste, Savigny sur Orge, France.
Six months in "Jean Baptiste Corot" high school, where I worked as an assistant teacher of mathematics to help students as well as colleagues in their work.

Awards and Honors

2019-2020 **Citadel Fellowship**, *Berkeley*, USA.
Presented to one exceptional PhD graduate student in Berkeley Statistics department.

2014 **French Government's Major-Excellence Scholarship**, *Paris*, France.
Three years long scholarship given to the top incoming students to Ecole Polytechnique

2014-2017 **Ecole Polytechnique**, *Palaiseau*, France.
Ranked first at the entrance exam for incoming students and fourth out of 500 students at the exit exam.

2012 **International Mathematical Olympiad**, *Mar Del Plata*, Argentina.
Bronze medalist in the International Mathematics Olympiad representing Morocco.

2012 **Baccalaureate in Mathematical and Physical Sciences**, *Rabat*, Morocco.
Ranked first nationally in the baccalaureate exam.

2012 **Concours general**, *Rabat*, Morocco.
First place in the subject of mathematics.

2012 **Asian Pacific Mathematics Olympiad**, *Rabat*, Morocco.
Honourable Mention.

Languages

Arabic Mothertongue

French Bilingual

English Professional proficiency