

# Yichao HUANG

PhD, junior researcher in Mathematics

## Personal Information

*Birth* April 3, 1991; People's Republic of China  
*Office* Exactum C327, Kumpula Campus  
*Address* P.O. Box 68 (Gustaf Hållströmin katu 2b), University of Helsinki, Finland  
*Contact* yichao.huang@outlook.com

## Current Employment

Since 2018 | **Post-doctoral researcher at University of Helsinki, Finland.**  
Supervisors : **Antti Kupiainen** and **Eero Saksman** under the ERC-grant QFPROBA.

## Education

2014 – 17 | **PhD student at University Paris VI and DMA of École Normale Supérieure de Paris.**  
Supervisors : **Rémi Rhodes** and **Vincent Vargas**.  
PhD thesis in probability on *Gaussian Multiplicative Chaos* and *Liouville Quantum Gravity*.  
Defended in Nov 2017 at DMA/ENS. Referees: Nathanaël Berestycki, Christophe Garban.  
Jury : J. Barral, N. Curien, C. Garban, A. Kupiainen, R. Rhodes, E. Saksman, Z. Shi, V. Vargas.

2010 – 14 | **Élève normalien at École Normale Supérieure de Paris.**  
FIMFA cursus of École Normale Supérieure de Paris. ENS Paris Diploma.  
Master “Probabilités et modèles aléatoires” at University Paris VI, grade “Très Bien”.  
Thesis on *critical Gaussian Multiplicative Chaos*. Supervisors: Rémi Rhodes, Vincent Vargas.

2008 – 10 | **Preparatory Classes MPSI–MP\*, Lycée Janson de Sailly.**  
Admitted to École Normale Supérieure de Paris through French national entrance exam.

## Publications et preprints

- [2] **Two perspectives of the 2D unit area quantum sphere and their equivalence**  
with Juhan Aru and Xin Sun, **Communications in Mathematical Physics**
- [1] **Liouville Quantum Gravity on the unit disk**  
with Rémi Rhodes and Vincent Vargas, **Annales de l'Institut Henri Poincaré (B)**

## Conference talks

2018 SPA (Conference on Stochastic Processes and their Applications), **Göteborg, Sweden**  
2017 Conference “Fractal geometry and dynamics”, **Institut Mittag-Leffler, Sweden**  
2016 Conference “Les Probabilités de Demain”, **Institut des Hautes Études Scientifiques, France**  
Colloquium “Jeunes Probabilistes et Statisticiens”, **École de Physique des Houches, France**  
2013 Conference “Des probas de la rue d'Ulm”, **École Normale Supérieure de Paris, France**

## Seminar talks

2017 Conference of Mathematical Physics group, **University of Helsinki, Finland**  
2016 Conference of Probability/Statistics team, **École Normale Supérieure de Paris, France**  
PhD/Postdoc seminar of ENS Paris, **École Normale Supérieure de Paris, France**  
2015 PhD/Postdoc seminar of University Paris XII, **Université Paris-Est, France**

## Research visits

Sep 2017 – Dec 2017    **Institut Mittag-Leffler, Sweden**  
IML postdoctoral fellowship grant  
Apr 2015                **Isaac Newton Institute, UK**  
Cambridge-PSL French embassy fund

## Other conference participations

2018    Scaling limits, rough paths, quantum field theory, **Isaac Newton Institute, UK**  
2017    Mini-school on Random Maps and the Gaussian Free Field, **ENS Lyon, France**  
2015    Disordered systems, random spatial processes and applications, **Institut Henri Poincaré, France**  
Random geometry, **Isaac Newton Institute, UK**  
2014    School and Workshop on Random Interacting Systems, **University of Bath, UK**  
Probability Summer School in Saint-Flour, **Saint-Flour, France**

## Teaching

2014 – 17    **TA, undergraduate level (192 hours)**  
Sequences, Integrals and Linear Algebra (Maths)  
Analysis and Algebra for Scientific Studies (Maths)  
Oscillatory Reactions (Chemistry)  
Arithmetic and Cryptography (Computer Science)  
  
2011 – 12    **Oral examiner in Preparatory Classes (60 hours)**  
Lycée Janson de Sailly, Paris

## Administrative activities

2013 – 17    **Nominated member of the advisory committee of the laboratory**, DMA, ENS Paris  
2016        **(Co)-Supervision of undergraduate thesis of Shuaijie Qian, from Tsinghua University**

## Scientific vulgarisation

2016 – 17    **Jury member of TFFJM<sup>2</sup> (Tournoi français des jeunes mathématiciennes et mathématiciens)**  
TFFJM<sup>2</sup>: team competition by high school students who work several months on open questions  
  
2010 – 11    **Tutor of six high school students**, TalENS association

## Languages

**Chinese**    Native  
**English**    Fluent  
**French**     Fluent  
**Finnish**    Beginner

## Personal activities

*Piano*        **Student of Éric Vidonne**, Hector Berlioz conservatory (CMA10) in Paris (2013–2017).  
**Concours international des amateurs à l'X (2015)**: first prize, audience award (Mozart K.450).  
**(Co-)organiser of the classical music club of the ENS since 2013**: one free concert per month.  
**Invitation of international pianist**: organisation of a free concert proposed by Valentina Lisitsa.  
  
*Sports*        Basketball/volleyball team at the ENS; organisation of several tournaments in Paris (TRU).