

Hassane Kone

Research Interests: Analytical inequalities, Integral geometry, Information theory, Machine learning.

Education

- 2011–2015 **Ph.D. in Mathematics**, *Tandon School of Engineering*, New York University, New York, New York.
Dissertation Topic: Orlicz moment-entropy-information Inequalities, parameterized Black-Scholes and (x^2, λ) -Gaussian stock pricing model
Advisors: Erwin Lutwak, Deane Yang, Gaoyong Zhang
- 2008–2010 **M.S. in Mathematics**, *Courant Institute*, New York University, New York, New York.
Thesis topic: Type and reflexivity of Banach spaces
Advisors: Assaf Naor
- 2008–2010 **M.S. in Mathematics**, *Polytechnic Institute*, New York University, New York, New York.
Thesis topic: Hilbert Bases and Kernel of Matrices
Advisors: Franziska Berger
Minor: Physics

Teaching

- Fall '17–Now **Adjunct Instructor**, *Tandon School of Engineering, Dept. of Technology Management and Innovation*, Brooklyn, New York.
Machine learning, Business Analytics, Calculus for Business.
- Sum '15–Now **Adjunct Instructor**, *Tandon School of Engineering, Courant Institute of Mathematical Sciences*, Brooklyn, New York.
Webassign management, Recitations, The Math Resource Center.
- Fall '08–Now **Adjunct Assistant Professor**, *CUNY: Hunter College, Brooklyn College, LaGuardia CC*, New York, New York.
Calculus, Math for Economics, Elementary Statistics, College Algebra.
- Fall '17–Spring '18 **Adjunct Instructor**, *Fordham University*, New York, New York.
Finite Mathematics.
- Fall '16–Spring '18 **Adjunct Professor**, *Cooper Union*, New York, New York.
Linear Algebra, Calculus II, Ordinary & partial differential Equations.
- Fall '08–Sum '11 **Adjunct Instructor**, *Polytechnic Institute of NYU*, New York, New York.
PreCalculus, Calculus, Linear Algebra.

Technical skills

- Programming Python, R, C++, Matlab, Maple, SQL, Javascript
Data Sci., ML, A.I. Numpy, Pandas, Matplotlib, Scikit-Learn, etc.

Publications

- 2019 *L_p -mixed entropies and $L_{p,q}$ -moment-entropy inequality*, Submitted.
— *A short proof of Orlicz-Sobolev Inequality*, *Advances in Applied Mathematics*, To appear.
- 2014 *Valuations on Orlicz spaces and L^ϕ -star sets*, *Advances in Applied Mathematics*, vol. 52(2014), 82-98.

Professional Travel

- Apr 16-20 2012 **Workshop on Convexity and Asymptotic Geometric Analysis**, CRM, Université de Montreal, Montreal (Quebec) Canada.
- Aug 22-26 2011 **Workshop on Introduction to Quantitative Geometry**, Mathematical Sciences Research Institute (MSRI), Berkeley, USA.

Honors & Awards

- Spring 2015 **George Bachman Award**, Tandon School of Engineering, NYU, New York.
- Spring 2015 **Excellence in Recognition of support for STEP** – Barnard College.
- Fall 2014 **Excellence in Recognition of support for STEP** – Barnard College.
- Spring 2011 **Williams R. Allen award**, Tandon School of Engineering, NYU, New York.
- Spring 2008 **Williams R. Allen award**, Tandon School of Engineering, NYU, New York.

Languages

Bilingual English & French

Professional Membership

Society for Industrial and Applied Mathematics (S.I.A.M)