# Victor ISSA

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About Me	I am a second year PhD student at ENS de Lyon under the supervi- sion of Jean-Christophe Mourrat. I am interested in problems related to spin glasses and partial differential equations.		
Education			
2023-	École Normale Supérieure de Lyon. PhD program.		
2019-2023	École Normale Supérieure de Lyon. Obtained a Master's degree in Probability and Statistics. Grade : $17,2/20$		
2017-2019	Lycée Michelet. Classe Préparatoire MPSI-MP.		
Research Artic	es		
	Uniqueness of weak solutions for the Hamilton-Jacobi equation. Accepted by Annales de la Faculté des Sciences de Toulouse.		
Preprints	A Hopf-like formula for mean-field spin glass models. arXiv:2410.08754.		
	$Weak-strong\ uniqueness\ principle\ for\ Hamilton-Jacobi\ equations.\ arXiv: 2410.00628$		
	Existence and uniqueness of permutation-invariant optimizers for Parisi formula. arXiv:2407.13846.		
Talks			
December 2024	<b>Institut Camille Jordan</b> . Gaussian isoperimetry and stochastic localization.		
October 2024	École Normale Supérieure de Lyon. A Hamilton-Jacobi approach to disordered systems.		
Research Expe	rience		

Spring 2023 University of Waterloo. Performed bibliographic research on physical and computational aspects of spin glasses. A special emphasis was put on applications to data science. This internship was conducted under the supervision of Aukosh Jagannath. Duration :  $4\ {\rm months.}$ 

- Fall 2022 University of Toronto. Performed bibliographic research on the Sherrington-Kirkpatrick model and multi-species spin glass models under the supervision of Dmitry Panchenko. Duration : 5 months.
- Summer 2022 École Normale Supérieure de Lyon. Learned the theory of viscosity solutions for the Hamilton-Jacobi equations. Researched uniqueness properties of weak solutions of the Hamilton-Jacobi equation under the supervision of Jean-Christophe Mourrat. Duration : 5 months.
- Summer 2021 King's College. Performed bibliographic research on elliptic curves, complex multiplication and L functions under the supervision of Netan Dogra. Duration : 3 months.
- Summer 2020 Université Paris-Saclay. Performed bibliographic research on L functions and Artin's conjecture under the supervision of Gaetan Chenevier. Duration : 6 weeks.

### Administrative duties

Decembre 2024- Elected member of the lab council. Represented the non-permanent members (PhD students, post-doc, AGPR, ATER) at the lab council of the mathematics department of ENS de Lyon.

### **Teaching Activities**

Fall 2024	Measure Theory Exercise Sessions. Coordinated the exercise sessions for the Licence 3 course "Integration and Measure" at ENS de Lyon.
September 2024	Master Research Project Defense. Evaluated short talks given by first year master studentsat ENS de Lyon after a 3 months re- search project.
Spring 2024	<b>Probability Exercise Sessions</b> . Coordinated the exercise sessions for the Master 1 course "Stochastic Processes" at ENS de Lyon.
Fall 2023	<b>Oral Examinations</b> . Conducted oral examinations for Licence 2 students in mathematics at Université Claude Bernard Lyon 1.
September 2023	Master Research Project Defense. Evaluated short talks given by first year master students at ENS de Lyon after a 3 months re- search project.

# Mathematics Outreach

(with William Sarem) À la recherche des triplets pythagoriciens. Images des Mathématiques (2021).

La formule de Riemann pour compter les nombres premiers. Journal de Mathématiques de l'École. Hors série n°4, 25-32 (2019).

# **Other Projects**

2020-2022 **Journal Mathématiques de l'École**. Collaborated with several other students to administer and publish the Mathematical Journal of Students of ENS de Lyon.

# **Personal Skills**

Languages	French	(native), English	(C2)
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Programming IATEX, Python, Excel, R