Valentin Hanecart

About me

Versatile
Meticulous
Good public speaker
Sense of initiative

Personal

Nationality : French
23 years old
Driving licence

Contacts

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Interests

Mathematics
Physics & Chemistry
History
Reading
Badminton, swimming, handball

Education

2024-	**Second year of Master in advanced mathematics, specialisation in algebra and number theory** UFR ST, Besançon, France **Third year of Magistère de Mathématiques** (complementary university courses to the master) UFR ST, Besançon, France
2024	**Agrégation externe de Mathématiques** (competitive examination allowing to teach in French education system), ranked 142nd over 315
2023-2024	**Second year of Master in general mathematics**, preparation to the "agrégation externe de mathématiques", grade "Bien" (∼ pass 70-80%) UFR ST, Besançon, France
2022-2023	**First year of Master in general mathematics**, grade "Assez bien" (∼ pass 60-70%) UFR ST, Besançon, France **Second year of Magistère de Mathématiques** (complementary university courses to the master) UFR ST, Besançon, France
2021-2022	**Third year of Bachelor in fundamental mathematics**, grade "Bien" (∼ pass 70-80%) UFR ST, Besançon **First year of Magistère de Mathématiques** (complementary university courses to the bachelor) UFR ST, Besançon, France
2019 - 2021	**Preparatory class (MPSI and MP*)** (French Classes Préparatoires are two year courses, equivalent to the first two years of a bachelor's degree, designed to prepare students for competitive entrance examination to the Grandes Écoles (∼ engineering schools)) High school Henri Wallon, Valenciennes, France
2019	**Baccalauréat Scientifique, spécialité Mathématiques** (∼ high school diploma), grade "Très bien" (∼ pass 80-100%) High school Camille Claudel, Fourmies, France

Professional experiences

2024-	**"Colleur" of Mathematics in MP/MPI and MP2I** (∼ oral interrogation of first and second year preparatory class students in algebra, analysis and probability) High school Carnot, Dijon, France **"Colleur" of Mathematics in PSI/PSI*** (∼ oral interrogation of first year preparatory class students in algebra, analysis and probability) High school Victor Hugo, Besançon, France **Board of mock oral exam in preparatory class** High school Carnot, Dijon & High school Victor Hugo, Besançon **Board of mock oral exam in Agrégation Externe de Mathématiques** UFR ST, Besançon
2022 (3 months)	**Trainee high school teacher** (∼ classroom teaching observation, assisting a class teacher, taking charge of a class and teaching for a week) Middle school Georges Pompidou, Pouilley-les-Vignes, France
2021-	**Private mathematical lessons** (students in secondary school and high school) Besançon, France
2020-2022 (1 month/year)	**Versatile municipal employee** (maintenance of public spaces and cleanliness) Town hall of Trélon, Trélon, France
2018 (1 month)	**Holiday camp activity leader** (handling of children and creation of activities) Activity center of Trélon, Trélon, France
2017-2023 (1 month/year)	**Worker** (fixed-term contract) (maintenance of machines) Glass factory Gerresheimer, Momignies, Belgique

Presentations & projects

2025 | **Journée des jeunes chercheuses et des jeunes chercheurs en mathématiques de la fédération Bourgogne Franche-Comté**, *Brève introduction aux formes modulaires* (∼ *A short introduction to modular forms*) ((*april 17, 2025*))
UFR ST, Besançon, France
Master thesis *Sur le théorème de l'image ouverte pour les représentations galoisiennes associées aux modules de Drinfeld* (∼ *On the open image theorem for Galois representations attached to Drinfeld modules*) (*in progress*), under the direction of CÉCILE ARMANA
UFR ST, Besançon, France

2024 | **Third year project of Magistère**, *Quelques cas particuliers de la conjecture de modularité de Serre* (∼ *Some particular cases of Serre's modularity conjecture*), under the direction of CHRISTIAN MAIRE
FEMTO ST, Besançon, France
Second year project of Master, *Introduction aux formes modulaires* (∼ *Introduction to modular forms*), under the direction of CÉCILE ARMANA
UFR ST, Besançon, France

2023 | **Day of Magistère**, presentation of the first year project of Master
UFR ST, Besançon, France
First year project of Master, *About solvable groups and some applications*, under the direction of AGNÈS DAVID
UFR ST, Besançon, France

2022 | **Day of Magistère**, presentation of the third year project of Bachelor
UFR ST, Besançon, France
Third year project of Bachelor, *Theorema Egregium de Gauss* (∼ *Gauss's Theorema Egregium*), under the direction of LYSIANNE HARI
UFR ST, Besançon, France

Seminars & additional courses attended

2025 | **33èmes Journées Arithmétiques**
University of Luxembourg, Esch-sur-Alzette, Luxembourg
Algebraic geometry and number theory in Bourgogne Franche-Comté
IMB, Dijon
School of introduction to the research of the Laboratoire de Mathématiques de Besançon (What is the contemporary version of Hilbert's program ?, Representations of $\mathrm{GL}_2(\mathbb{F}_p)$ and (some) representations of $\mathrm{GL}_2(\mathbb{Q}_p)$, Khintchine inequalities, Conservation laws and applications, Mathematics and artificial intelligence, Tensor products)
Pierrefontaine-les-Varans

2024-2025 | **Weekly seminar with Algebra and Number Theory group**
Weekly workgroup with Algebra and Number Theory group (prismatic cohomology)
UFR ST, Besançon, France

2024 | **Functional analysis course** (duality in Banach spaces, linear structure of Banach spaces and spaces $\mathcal{C}^0(K)$)
UFR ST, Besançon, France
Lie groups and algebras course
UFR ST, Besançon, France
Lectures Sophie Kowalevski (Introduction to modular group, Introduction to hydrodynamic limits)
Centre Henri Lebesgue, Angers, France
School of introduction to the research of the Laboratoire de Mathématiques de Besançon (Harmonic functions, Differential geometry, Non commutative integration, Introduction to modular forms, Riemann surface, Fixed-point theorems and amenable abelian groups, Ramsey theory)
Pierrefontaine-les-Varans, France

2023 | **Masterclass** (On convex functions and sets)
UFR ST, Besançon, France
Lectures Sophie Kowalevski (Some aspects (probabilistic, algebraic and algorithmic) of random permutations, To the discovery of the representations modulo p of p-adic groups)
Centre Henri Lebesgue, Angers, France
Differential geometry course (introduction)
UFR ST, Besançon, France
Inferential statistics course
UFR ST, Besançon, France

2022 | **Discretisation of PDEs course**
UFR ST, Besançon, France

2021 | **Mathematical epistemology course**
UFR ST, Besançon, France

Degrees & certificates

2024	Agrégation externe de mathématiques
2024	Master General Mathematics
2022	Licence Fundamental Mathematics
2022	Certificate of competence in English (level B2)
2019	Baccalauréat Scientifique
2017	Certificate of competence in Spanish (level B1)

Language skills

French	C2	Native language
English	C1	● ● ● ● ● ○
Spanish	B1	● ● ● ○ ○ ○
German	A1	● ○ ○ ○ ○ ○

Computer skills

LaTeX	Very good command
Python	Very good command
Word	Good command
Excel	Good command
PowerPoint	Good command
HTML & CSS	Some basics
PARI/GP	Some basics
Scilab	Some basics
OCaml	Some basics
SQL	Some basics

References

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