# Valentin Hanecart



#### About me

Versatile Meticulous Good public speaker Sense of initiative

#### Personal

Valentin Hanecart Nationality : French 23 years old Driving licence

#### Contacts

#### 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), accepted 142<sup>nd</sup> over 315

2023-2024 **Second year of Master, in general mathematics**, preparation to the "agrégation ex-

terne de mathématiques", grade "Bien" ( $\sim$  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" ( $\sim$  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" ( $\sim$  pass 80-100%)

High school Camille Claudel, Fourmies, France

### Professional experiences

2024- | Colleur de Mathématiques en MP/MPI et MP2I ( $\sim$  oral interrogation

of first and second year preparatory class students in algebra, analysis

and probability)

High school Carnot, Dijon, France

Colleur de Mathématiques en PSI/PSI\* ( $\sim$  oral interrogation of first

year preparatory class students in algebra, analysis and probability)

High school Victor Hugo, Besançon, France

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 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 ac-

tivities)

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 | Master thesis (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 CHRIS-

TIAN 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 (from June 30 to July 4, 2025)

University of Luxembourg, Esch-sur-Alzette, Luxembourg

School of introduction to the research of the Laboratoire de Mathématiques de Besançon (What is the contemporary version of Hilbert's program?, Representations of  $\operatorname{GL}_2(\mathbb{F}_p)$  and (some) representations of  $\operatorname{GL}_2(\mathbb{Q}_p)$ , Khintchine inequalities, Conservation laws and applica-

tions, Mathematics and artificial intelligence, Tensor products)

Pierrefontaine-les-Varans

2024-2025 Weekly seminar with team of Algebra and Number Theory

Work group with team of Algebra and Number Theory (prismatic cohomology)

UFR ST, Besançon, France

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, Ram-

sey theory)

Pierrefontaine-les-Varans, France

2023 Masterclass (On convex functions and sets)

UFR ST. Besancon, 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 Discretization of EDPs 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

Certificate of competence in Spanish (level B1)

## 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

#### LANGUAGE SKILLS

2017

French C2 Native language
English C1 • • • • •
Spanish B1 • • • • •
German A1

## REFERENCES

Armana Cécile | Lecturer

UFR ST, Besançon - Team Algebra and Number Theory

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**\** 03.81.66.63.35

David Agnès Lecturer

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Fouquet Olivier | Professor

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**Lancien Gilles** Professor

UFR ST, Besançon - Team Functional Analysis

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