

Nataniel Marquis



EDUCATION AND EMPLOYEMENT



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Postdoc

Universität Münster

Work group of Eugen Hellmann

2022-2025

from Sept. 2025

Doctorate

Sorbonne Université Supervised by Pierre Colmez and Antoine Ducros

2018-2022

Master's and Bachelor's studies

École Normale Supérieure and Sorbonne Université

2016-2018

CPGE

MPSI and MPX at Lycée Louis-le-Grand

French Native

LANGUAGES

English

CAE (Level C1)

German

B1

Japanese

Notions

DEGREES

PhD in Mathematics Jun. 2025

Sorbonne Université

Degree of the École Normale Supérieure in Mathematics 2022

Master's degree in Mathematics

Sorbonne Université

Bachelor's degree in Mathematics

Sorbonne Université

2019

2021

RESEARCH

Preprint: Équivalences de Fontaine multivariable Lubin-Tate et plectiques pour un corps local p-adique, arxiv:2410.09475

2024

2024

Preprint Study of various categories gravitating around (φ , Γ)-modules, arxiv:2410.09483

Introduction to the field of research (available on my webpage): Introduction aux correspondances de Langlands locales padiques

2022

Master's thesis (available on my webpage): <u>T</u>héorie des (φ,Γ) -modules univariables, représentations de GL(2,Qp) et généralisation à la théorie des (φ,Γ) -modules multivariables. Supervised by Pierre Colmez

Internship report:

La conjecture de Fontaine : faiblement admissible implique admissible

Supervised by Arthur-César Le Bras

Bachelor's thesis: Nombre de classes des corps quadratiques, with Paul Wang

Supervised by Salim Tayou

MISCELLANEOUS

Harp degree (DEM) Published novels:

2021

2020

2019

Trilogy Le sceau des éléments

TALKS AND ORGANISED EVENTS

Organisation of the Mittagsseminar Winter Semester 2025 Universität Münster

Talk at the number theory seminar of Budapest Apr. 2025 Multivariable Lubin-Tate Fontaine equivalence for local fields Institue of Mathematics, Eötvös Loránd University, Budapest

Talk at the "Raconte-moi" seminar Mar. 2025 Raconte-moi la correspondance de Langlands modulo p pour

GL(2,Qp)DMA, École Normale Supérieure, Paris

Talk at the arithmetic algebraic geometry seminar of Heidelberg Jan. 2025 Multivariable Lubin-Tate Fontaine equivalence Mathematisches Institut, Universität Heidelberg

2024-2025 Organisation of the RéGA seminar

Sept. 2024 Talk at the back-to-school conference day of the Algebra and Geometry team:

Lien entre les théories d'Artin-Schreier et de Lubin-Tate DMA, École Normale Supérieure, Paris

Talk at the PhD seminar of Besançon Jun. 2024 Représentations galoisiennes p-adiques de corps locaux p-

adiques : motivation et (φ,Γ) -modules

LMB, Besançon

Apr. 2024 Talk at the RéGA seminar

Périodes p-adiques et anneaux elfiques

IHP, Paris

Nov. 2023 Talk at the PhD seminar of Grenoble

A few steps towards Fontaine's (φ,Γ) -modules UGA

Talk at the Arithmetic Geometry Preprint Seminar Theory of multivariable (φ,Γ) -modules and consequences for a p-adic Langlands correspondance for GL(n,Qp), based on Zàbràdi IMJ-PRG, Paris

Oct. 2022



ATTENDED EVENTS

Algebraic K-theory and Arithmetic Institute of Mathematics of the Polish Academy, Będlewo	Jul. 2024
Riemann-Hilbert correspondance - classical and p-adic Dipartimento di Matematica, Padova	Jun. 2024
Spring Workshop of the Special Year on p-adic Arithmetic Geometry IAS, Princeton	Mar. 2024
Summer School on the Arithmetic of the Langlands Program HIM, Bonn	May 2023
Condensed Mathematics CIRM, Luminy	Mar. 2023
p-adic Franco-Asian Summer School on Arithmetic Geometry CIRM, Luminy	May 2022



Exercise sessions for "Group and representation theory" Teachers Gaëtan Chenevier then Ariane Mézard École Normale Supérieure, Paris	2022-2025
Supervision of a Bachelor's thesis about Lubin-Tate extensions École Normale Supérieure, Paris	2023-2024
Talens tutor: equal opportunities tutoring session for secondary school students	2019-2020
Oral interrogations in MPSI and MPX Lycée Louis-le-Grand, Paris	2018-2022