

# Curriculum Vitae

September 2025

Nikola Tomić

PhD Student under the supervision of Damien Calaque,  
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## Interests:

Derived algebraic geometry, homotopy theory and mathematical physics.  
Currently investigating links between BV formalism in theoretical physics, shifted Poisson geometry, geometric quantization and Donaldson-Thomas invariants.

## Diplomas:

- Double licence mathématiques-informatique ENS Paris-Saclay (2020)
- M1 de mathématiques Jacques Hadamard ENS Paris-Saclay (2021)
- M2 de mathématiques fondamentales Sorbonne Université (2022)
- Diplôme de l'ENS Paris-Saclay (2023)

## Preprints:

- Shifted Lagrangian thickenings of shifted Poisson derived schemes** (2025) (*Submitted*)  
[arXiv:2506.23348]

## Seminar talks:

- Hodge Club Seminar**, University of Edinburgh, January 2023  
(Title: *Homotopy Type Theory*)
- Séminaire Pampers in Rennes**, IRMAR, February 2024  
(Title: *Quantum field theory and twisted de Rham cohomology*)
- Séminaire AGATA**, Montpellier, IMAG, February 2025  
(Title: *Épaississements lagrangiens et Géométrie de Poisson décalée*)
- Séminaire topologie**, Lille, Laboratoire Paul Painlevé, October 2025  
(Title: *Épaississements lagrangiens et Géométrie de Poisson décalée*)
- Séminaire géométrie et singularités**, Rennes, IRMAR, October 2025  
(Title: *Épaississements lagrangiens et Géométrie de Poisson décalée*)
- Séminaire topologie et géométrie algébriques**, Angers, LAREMA, October 2025  
(Title: *Épaississements lagrangiens et Géométrie de Poisson décalée*)
- Séminaire de topologie algébrique**, Villetaneuse, LAGA, January 2026  
(Title: *Épaississements lagrangiens et Géométrie de Poisson décalée*)

## Conference/Workshop talks:

- Workshop on Hall algebras and vertex algebras**, Ilse of Skye, April 2023  
(Title: *Poisson Vertex Algebras*)

**-Workshop of the ANR HighAGT on formality of algebraic structures**, Sainte-Foy-Tarentaise, January 2024

(Title: *BV Formalism as a shifted coisotropic reduction*)

**-An invitation to Derived Geometry**, Padova, Università degli studi di Padova, September 2024

(Title: *A  $(-1)$ -shifted coisotropic morphism*)

**-Workshop on 6 functor formalism**, TU Darmstadt, November 2025

## Working groups talks:

**-Working group on logarithmic geometry**, Montpellier, 2024

Title: *Le théorème de comparaison*

## Teaching experience:

**-Teaching Assistant**, Bachelor (L1) in Computer Science (Mathématique du choix), 2023-2024

**-Teaching Assistant**, Bachelor (L1) in Biology (Raisonnements scientifique), 2023-2024

**-Teaching Assistant**, Bachelor (L2) in Computer Science (Arithmétique), 2024-2025

**-Teaching Assistant**, Bachelor (L1) in Mathematics (Géométrie), 2024-2025

**-Teaching Assistant**, Bachelor (L1) in Biology (Raisonnements scientifique), 2024-2025

## Organization of seminar/workshops:

**-PhD student seminar** (sem'doc) at IMAG, 2024-2025

(Co-organizer with Pierrick Le Vourc'h and Ulysse Mounoud)

**-Winter school Motives in Montpellier**, January 2026

(Co-organizer with Clément Dupont, Ulysse Mounoud and Sofian Tur-Dorvault)

## Conferences/Workshops attended:

**-Conference in honor of Carlos Simpson (CATS-60)**, Toulouse, June 2022

**-Donaldson-Thomas invariants**, Aussois, October 2022

**-Workshop on Singularities and Mirror Symmetry**, Glasgow, December 2022

**-CIMPA School - Crossroads of geometry, representation theory and higher structures**, Puerto Madryn (Argentina), March 2023

**-Workshop on Hall algebras and vertex algebras in enumerative geometry**, Isle of Skye, April 2023

**-Categories and stacks in algebraic geometry and algebraic topology CATS 7**, Marseille, CIRM, October 2023

**-Workshop of the ANR HighAGT on formality of algebraic structures**, Sainte-Foy-Tarentaise, January 2024

**-Nearby cycles and derived geometry**, Regensburg, University of Regensburg, February 2024

**-Motives in Mainz**, Mainz, Johannes Gutenberg-Universität Mainz, March 2024

**-Higher Algebra, Geometry, and Topology**, Marseille, CIRM, May 2024

**-An invitation to Derived Geometry**, Padova, Università degli studi di Padova, September 2024

**-Operad and Calculus**, Belfast, Queen's University Belfast, April 2025

**-Around associators: from integrable systems to number theory**, Les Diablerets, September 2025

**-Rencontre ANR DAG Arts**, Angers, Université d'Angers, October 2025

**-Workshop on Six-Functor Formalisms**, Darmstadt, TU Darmstadt, November 2025

**-Motives in Montpellier in Montpellier**, Montpellier, Université de Montpellier, January 2026

## **Research group membership:**

**-ANR DAG-Arts** (Derived algebraic geometry applied to representation theory and singularity of schemes) 2025-

## **Research visits:**

-2 months visit in the Université de Nice with François-Xavier Dehon on Combinatorial homotopy types.

-3 months visit in the Université de Montpellier with Michele-Bolognesi on Birational geometry and derived categories.

-3 months visit in the Université Paul Sabatier (Toulouse) with Joost Nuiten on Loop spaces in Derived algebraic geometry.

-9 months visit in the University of Edinburgh with Pavel Safronov on Donaldson-Thomas invariants and shifted symplectic structures.

All of these visits have resulted in a written « internship » thesis.

## **Languages:**

-French (Native)

-English (Fluent, C1)