

Douglas Molin

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Education

PhD in Mathematics (<i>Ongoing</i>) <i>University of Gothenburg</i>	<i>Aug 2021 –</i>
◦ Supervisor: Christian Johansson	
MSc in Mathematics <i>University of Gothenburg</i>	<i>Sept 2019 – Jun 2021</i>
◦ Thesis: Effective Quasiparallelogram Laws for Elliptic Curves over Number Fields	
◦ Supervisor: Per Salberger	
BSc in Mathematics <i>University of Gothenburg</i>	<i>Sept 2016 – Jun 2019</i>

Publications and preprints

On patched completed homology and a conjecture of Venkatesh arXiv:2407.04228 🔗	Preprint
On derived deformation rings in characteristic 0 and a conjecture of Venkatesh Available at douglasmolin.github.io 🔗.	Preprint

Conferences and workshops attended

N-Cube Days XXIII <i>University of Gothenburg</i>	<i>Nov 2025</i>
Arizona Winter School: Representation theory of p-adic groups <i>University of Arizona</i>	<i>Mar 2025</i>
New Advances in the Langlands Program: Geometry and Arithmetic <i>University of Oxford</i>	<i>Sept 2024</i>
Non-archimedean geometry and Eigenvarieties <i>University of Heidelberg</i>	<i>Mar 2023</i>
Topology and Arithmetic around the Langlands Program <i>Stockholm University</i>	<i>Jun 2022</i>

Research talks

(Upcoming) The derived structure of p-adic automorphic cohomology <i>USTC Hefei</i>	<i>17 Mar 2026</i>
The derived structure of p-adic automorphic cohomology <i>N-Cube Days XXIII, University of Gothenburg</i>	<i>14 Nov 2025</i>
On a conjecture of Venkatesh <i>Seminar in Algebraic Geometry and Number Theory, University of Gothenburg</i>	<i>7 Feb 2024</i>

Teaching experience

Part-time teaching as part of employment as doctoral student <i>University of Gothenburg & Chalmers University of Technology</i>	<i>Aug 2021 –</i>
◦ Includes lecturing, exercise sessions, computer labs and exam correcting in courses in analysis, algebra, probability and statistics.	

- During the academic years 18/19 & 19/20, I was employed as *amanuens* (a two-year teaching position for undergraduates and master's students).
- Includes lecturing, exercise sessions, computer labs and exam correcting in courses in analysis, algebra, probability and statistics.