

Robin van Haastrecht

Date of Birth	17-06-2000
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SUMMARY

I am Robin van Haastrecht, a third year PhD student under the supervision of Genkai Zhang. I am broadly interested in representation theory, some special interests being Wehrl type inequalities for matrix coefficients of unitary representations of real semisimple Lie groups and compact groups, and branching problems for representations of the Lie algebra \mathfrak{g}_2 and the connected Lie group G_2 . My first articles as a PhD student are about limit formulas connected to this Wehrl inequality. I want to continue to study this in the context of Hermitian symmetric spaces.

EDUCATION

08-2022 – Present	PhD in representation theory, University of Gothenburg, under supervision of Professor Genkai Zhang.
09-2021 – 01-2022	ERASMUS exchange, KU Leuven, Leuven, Belgium.
09-2020 – 06-2022	MSc in Mathematics, Radboud University, Nijmegen, the Netherlands.
09-2017 – 06-2020	BSc in Mathematics, Radboud University, Nijmegen, the Netherlands.

THESES

06-2022	Master's thesis, 'Commutative triples of motion groups'. Under supervision of Professor Erik Koelink.
06-2020	Bachelor's thesis, 'Spherical functions for Gelfand pairs of complex reflection groups'. Under supervision of Professor Erik Koelink.

TEACHING

08-2022 – present	TA, analysis 1, analysis 2, Fourier analysis Chalmers University of Technology.
01-2024 – 05-2024	Supervisor bachelor thesis 'Discrete subgroups of the Euclidean motion group', University of Gothenburg.
09-2020 – 06-2022	Student TA, analysis, graph theory and group theory, Radboud university.

DEPARTMENTAL DUTY

09-2023 – present	PhD representative of the Committee for Third Cycle Education, Faculty of Natural Sciences.
05-2024 - 05-2024	PhD representative of the recruitment group for the director of graduate studies.

TRAVEL AND TALKS

22-06-2025 - 28-06-2025	Speaker at the conference Representation Theory XIX, at the Inter-University Center, Dubrovnik, Croatia.
18-05-2025 - 23-05-2025	Research visit at Aarhus University, Denmark. Local expenses covered by the host.
25-04-2025	Speaker at the PhD conference, Gothenburg University, Gothenburg, Sweden.
20-01-2025 - 24-01-2025	Speaker in the workshop Intertwining operators and Noncommutative Geometry at IHP, Paris, France. Living costs and hotel paid for by IHP.
09-09-2024 - 13-09-2024	Conference Integral Structures in Geometry and Representation Theory in Paderborn, Germany.
17-06-2024 - 23-06-2024	Research visit at BiCMR, the Beijing international center of mathematical research, China.
03-06-2024 - 07-06-2024	Invited research visit at the University of Copenhagen, Denmark. Everything paid for by the inviting university.
02-04-2024	Invited talk at the Radboud University, Geometry Seminar.
17-11-2023	Talk at the autumn meeting of the SMS.
03-07-2023 - 07-07-2023	29th Nordic Congress of Mathematicians in Aalborg, Denmark.
02-03-2020 - 13-03-2020	Research visit for my Honours Bachelor thesis, Kumamoto University, Japan. Everything paid by the Honours program.

SCHOLARSHIPS

15-05-2025	10000 SEK, The Royal Society of Arts and Sciences in Gothenburg.
29-04-2025	5000 SEK, Knut och Alice Wallenbergs stiftelses resefond.
29-04-2025	15000 SEK, Oscar Ekmans stip fond.
14-01-2025	2500 SEK, Stiftelsen Lars Hiertas Minne.
21-11-2024	2500 SEK, Kungliga Vetenskapliga Akademien.
24-05-2024	10000 SEK, Wilhelm och Martina Lundgrens vetenskapsfond.

PUBLICATIONS AND PREPRINTS

- van Haastrecht, Robin (2025). “Functional calculus of quantum channels for the holomorphic discrete series of $SU(1,1)$ ”. In: *Journal of Functional Analysis* 289.6. 111036.
- (2024). “Limit formulas for the trace of the functional calculus of quantum channels for $SU(2)$ ”. In: *Journal of Lie Theory* 34.3, pp. 653–676.
- van Haastrecht, Robin and Zhang, Genkai (2024). *Wehrl inequalities for matrix coefficients of holomorphic discrete series*. arXiv: [2412.18382 \[math.RT\]](#).
- van Haastrecht, Robin (2021). “Spherical functions for Gelfand pairs of complex reflection groups”. In: *Indagationes Mathematicae* 32.2, pp. 426–441.