Tom de Jong · Curriculum Vitae

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Born: 26 April 1994—Rotterdam, The Netherlands
Nationality: Dutch (The Netherlands)
Languages: Dutch (native) and English (near native)

Contents

(1) Research interests; (2) Work experience; (3) Education;
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1 Research interests

I am interested in mathematical structures and logic and their applications to computer science. Specifically, I have worked on homotopy type theory, category theory, domain theory, realizability, and constructive mathematics, and I like to use proof assistants (also known as interactive theorem provers) to formalize my research.

2 Work experience

Postdoctoral researcher and *NWO Veni laureate**, Institute for Computing and Information Sciences , Radboud University, The Netherlands (October 2026–November 2029)

* The personal Veni fellowship will fund my position December 2026–November 2029, see Section 4.

Research Fellow (postdoctoral researcher), School of Computer Science, University of Nottingham, UK (October 2022–September 2026)
Supervisor: Prof. Nicolai Kraus

3 Education

PhD in *Theoretical Computer Science*, University of Birmingham, UK (2018–2022)
Supervisor: Prof. Martín Hötzel Escardó, co-supervisor: Dr. Benedikt Ahrens

Title: *Domain Theory in Constructive and Predicative Univalent Foundations*
Supported by the **Dissertation Fellowship in Homotopy Type Theory** and nominated for the *E. W. Beth Dissertation Prize* and *Ackermann Award* with support from my supervisor, the external examiner Prof. Andrej Bauer, and Prof. Dana Scott.
https://etheses.bham.ac.uk/id/eprint/13401/ — updated version on arXiv: 2301.12405 [cs.LO]

MSc in *Mathematical Sciences*, Utrecht University, The Netherlands (2015–2018)
GPA: 4.00 (*cum laude*)

BSc in both *Computer Science* and *Mathematics*, Utrecht University, The Netherlands (2012–2015)
GPA: 4.00 (*cum laude*)

4 Funding

Veni 2025, funded by the Dutch Research Council (NWO) as part of the NWO Talent Programme.

Amount	€319 975
Duration and period	3 years; 1/12/2026 – 30/11/2029

Host organization	Institute for Computing and Information Sciences, Radboud University
Project title	*Accessible Categories in Constructive Type Theory*
Grant ID	DOI: 10.61686/SADET09128
Overall award rate	14% in the relevant domain: Science (ENW)

*NB. I **returned** the below MSCA-PF in favour of the Veni above.*
Marie Skłodowska-Curie Actions Postdoctoral Fellowship (MSCA-PF) 2025, funded by the European Commission as part of Horizon Europe.

Amount	€217 076
Duration and period	2 years; not started (returned)
Host organization	Institute for Computing and Information Sciences, Radboud University Supervisor: Prof. Herman Geuvers
Project title	*Accessible Categories in Constructive Type Theory (ACCTT)*
Proposal score	97.4/100; cut off score: 97.0, i.e. the top 10.98% of proposals* * *in the relevant panel: EF-MAT*

Dissertation Fellowship in Homotopy Type Theory, funded by Cambridge Quantum Computing and Ilyas Khan ($18 000).
Committee members: Prof. Steve Awodey, Prof. Thierry Coquand, Prof. Emily Riehl and Prof. Michael Shulman. 2021. https://tinyurl.com/hott-dissertation
Project title: *Constructive and Predicative Domain Theory in Homotopy Type Theory*. This fellowship funded the last (fourth) year of my PhD.

5 Awards

Award for the **Best Paper by a Junior Researcher** at the *6th International Conference on Formal Structures for Computation and Deduction (FSCD 2021)*. Item [c8] under *Publications*.

Distinguished Paper award at the *40th Annual ACM/IEEE Symposium on Logic in Computer Science (LICS 2025)*. Item [c3] under *Publications*.

Three *Reward Scheme* financial awards for my contributions as a **Research Fellow**, University of Nottingham, UK. 2023. Excerpt from a nomination quote:

> *Tom's Midlands Graduate School course was the top-rated course by the participants. This is a very impressive achievement for a new postdoctoral researcher, particularly in light of the fact that most of the speakers are experienced senior academics, often at professorial level.*
>
> *In addition, Tom is an exemplary member of the Functional Programming Lab in the school. Tom's achievements go significantly beyond normal expectations for his role that he only started in October 2022, and are eminently deserving of an NRS award.*

School of Computer Science winner of the **Faculty of Science Postdoctoral and Fellow Research Award** for an outstanding and original paper from within the last year, University of Nottingham, UK. 2023. Item [c5] under *Publications*.

Competitive college (faculty) level financial award for outstanding performance as a **Teaching Assistant** in the *(Advanced) Functional Programming* modules, University of Birmingham, UK. 2022. Excerpts from the nomination quotes of the lecturers:

> *Tom always worked above and beyond what is required in all his duties. He produced, with the help of other TA's, automatic marking scripts to verify the correctness of students' computer*

programs. This is very difficult to do, and very time consuming, and, more importantly, requires a high amount of creativity and commitment.

Tom has shown an absolute mastery of the material through his construction of exercise sheets and test material, his interaction with students and his ability to identify and even anticipate issues. He has been instrumental in resolving marking issues, taking the lead among the PGTA's. His experience and insights contributed massively to a successful module.

6 Publications

Articles in refereed journals

[j1] Tom de Jong and Martín Hötzel Escardó. 'Examples and counterexamples of injective types'. In: *Annals of Pure and Applied Logic* 178.2, 103829 (2027). Published online in September 2026. DOI: 10.1016/j.apal.2026.103829.

[j2] Tom de Jong, Nicolai Kraus, Fredrik Nordvall Forsberg and Chuangjie Xu. 'Constructive Ordinal Exponentiation'. In: *Journal of the ACM* (2026). Invited paper; extended version of [c3]. arXiv: 2501.14542v6 [cs.LO]. Accepted pending minor revisions.

[j3] Tom de Jong, Nicolai Kraus, Simona Paoli and Stiéphen Pradal. 'A study of Kock's fat Delta'. In: *Journal of Pure and Applied Algebra* 230.11, 108368 (2026). DOI: 10.1016/j.jpaa.2026.108368.

[j4] Tom de Jong and Martín Hötzel Escardó. 'Continuous and algebraic domains in univalent foundations'. In: *Journal of Pure and Applied Algebra* 229.10, 108072 (2025). DOI: 10.1016/j.jpaa.2025.108072.

[j5] Ulrik Buchholtz, Tom de Jong and Egbert Rijke. 'Epimorphisms and Acyclic Types in Univalent Foundations'. In: *The Journal of Symbolic Logic* (2025), pp. 1–36. DOI: 10.1017/jsl.2024.76.

[j6] Tom de Jong. 'Apartness, sharp elements and the Scott topology of domains'. In: *Mathematical Structures in Computer Science* 33.7 (2023), pp. 573–604. DOI: 10.1017/S0960129523000282.
Extended version of [c6].

[j7] Tom de Jong and Martín Hötzel Escardó. 'On Small Types in Univalent Foundations'. In: *Logical Methods in Computer Science* 19.2 (2023), 8:1–8:33. DOI: 10.46298/LMCS-19(2:8)2023. Included in the special issue *Selected Papers of the 6th International Conference on Formal Structures for Computation and Deduction (FSCD 2021)*.
Extended version of [c8].

[j8] Tom de Jong. 'The Scott model of PCF in univalent type theory'. In: *Mathematical Structures in Computer Science* 31.10 (2021): *Homotopy Type Theory 2019*, pp. 1270–1300. DOI: 10.1017/S0960129521000153.

[j9] Tom de Jong and Jaap van Oosten. 'The Sierpinski Object in the Scott Realizability Topos'. In: *Logical Methods in Computer Science* 16.3 (2020), 12:1–12:16. DOI: 10.23638/LMCS-16(3:12)2020. Included in the special issue *Selected papers of the conference "Continuity, Computability, Constructivity – From Logic to Algorithms" (CCC 2018)*.

Articles in refereed conference proceedings

[c1] Tom de Jong, Nicolai Kraus and Axel Ljungström. 'The Leibniz adjunction in homotopy type theory, with an application to simplicial type theory'. In: *35th EACSL Annual Conference on Computer Science Logic 2027*. Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, 2026. arXiv: 2601.21843 [math.CT]. To appear.

[c2] Tom de Jong, Nicolai Kraus, Aref Mohammadzadeh and Fredrik Nordvall Forsberg. 'Generalized Decidability via Brouwer Trees'. In: *41st Annual Symposium on Logic in Computer Science (LICS 2026)*. Ed. by Claudia Faggian and Joost-Pieter Katoen. Vol. 380. Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, 2026, 59:1–59:27. DOI: 10.4230/LIPIcs.LICS.2026.59.

[c3] Tom de Jong, Nicolai Kraus, Fredrik Nordvall Forsberg and Chuangjie Xu. 'Ordinal Exponentiation in Homotopy Type Theory'. In: *40th Annual ACM/IEEE Symposium on Logic in Computer Science (LICS)*. 2025, pp. 262–274. DOI: 10.1109/LICS65433.2025.00027. arXiv: 2501.14542v4 [cs.LO]. Selected as a *Distinguished Paper*.

[c4] Tom de Jong. 'Formalizing Equivalences Without Tears'. In: *30th International Conference on Types for Proofs and Programs (TYPES 2024)*. Ed. by Rasmus Ejlers Møgelberg and Benno van den Berg. Vol. 336. Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, 2025, 1:1–1:6. DOI: 10.4230/LIPIcs.TYPES.2024.1.

[c5] Tom de Jong, Nicolai Kraus, Fredrik Nordvall Forsberg and Chuangjie Xu. 'Set-Theoretic and Type-Theoretic Ordinals Coincide'. In: *38th Annual ACM/IEEE Symposium on Logic in Computer Science (LICS)*. 2023, pp. 1–13. DOI: 10.1109/LICS56636.2023.10175762. arXiv: 2301.10696 [cs.LO].

[c6] Tom de Jong. 'Sharp Elements and Apartness in Domains'. In: *37th Conference on the Mathematical Foundations of Programming Semantics (MFPS 2021)*. Ed. by Ana Sokolova. Vol. 351. Electronic Proceedings in Theoretical Computer Science. Open Publishing Association, 2021, pp. 134–151. DOI: 10.4204/EPTCS.351.9.

[c7] Tom de Jong and Martín Hötzel Escardó. 'Domain Theory in Constructive and Predicative Univalent Foundations'. In: *29th EACSL Annual Conference on Computer Science Logic (CSL 2021)*. Ed. by Christel Baier and Jean Goubault-Larrecq. Vol. 183. Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, 2021, 28:1–28:18. DOI: 10.4230/LIPIcs.CSL.2021.28.

[c8] Tom de Jong and Martín Hötzel Escardó. 'Predicative Aspects of Order Theory in Univalent Foundations'. In: *6th International Conference on Formal Structures for Computation and Deduction (FSCD 2021)*. Ed. by Naoki Kobayashi. Vol. 195. Leibniz International Proceedings in Informatics (LIPIcs). Schloss Dagstuhl–Leibniz-Zentrum für Informatik, 2021, 8:1–8:18. DOI: 10.4230/LIPIcs.FSCD.2021.8.

Preprints

[p1] Tom de Jong. 'Domain theory in univalent foundations I: Directed complete posets and Scott's D_∞'. 2024. arXiv: 2407.06952 [cs.LO].
An abridged version of this preprint was included in [j4].

[p2] Tom de Jong and Martín Hötzel Escardó. 'Domain theory in univalent foundations II: Continuous and algebraic domains'. 2024. arXiv: 2407.06956v3 [cs.LO].
Subsumed by [j4] which includes an abridged version of [p1] at the journal's request.

[p3] Tom de Jong and Martín Hötzel Escardó. 'Domain Theory in Constructive and Predicative Univalent Foundations'. 2020. arXiv: 2008.01422 [math.LO].
Extended version of [c7].

Popular articles

[P1] Benno van den Berg and Tom de Jong. 'Heyting Day 2025: Models of intuitionism and computability. Symposium in honour of Jaap van Oosten'. In: *Nieuw Archief voor Wiskunde* 5/26.3 (2025), pp. 175–177. URL: https://www.nieuwarchief.nl/serie5/pdf/naw5-2025-26-3-176.pdf.

7 Research visits & selective events

Invited participant in the Dagstuhl Seminar 26121 *Proof Systems in Actual Practice: Reasoning and Computation*, Schloss Dagstuhl, Germany. 15–20 March 2026.

Participant in the conference *Synthetic mathematics, logic-affine computation and efficient proof systems*, CIRM, France. 8–12 September 2025.

Participant in the workshop *Advances in Interactive and Quantitative Semantics*, CIRM, France. 26–28 May 2025.

Participant in the trimester programme *Prospects of Formal Mathematics*, Hausdorff Research Institute for Mathematics (HIM), Germany. 26 May–8 June 2024.

Research visit to the Department of Computer Science and Technology, University of Cambridge, UK. Working with Prof. Marcelo Fiore and Dr. Jon Sterling (host). February 2024.

Invited participant in the conference *Type Theory, Constructive Mathematics and Geometric Logic*, CIRM, France. 1–5 May 2023.

Research visits to the Faculty of Mathematics and Physics, University of Ljubljana, Slovenia.
April 2023: Joint visit with Dr. Ulrik Buchholtz; hosted by Dr. Egbert Rijke.
May–June 2022: Hosted by Prof. Andrej Bauer; working with Dr. Egbert Rijke.

8 Talks

Invited talks

"Introduction to Homotopy Type Theory / Univalent Foundations". *Boğaziçi University Science Club Mathematics*, online. 12 November 2026.

"Synthetic homotopy theory at work: epimorphisms, suspensions and groups". *Formal proof and synthetic mathematics* workshop, Heidelberg University, Germany. 24 June 2026.

"Apartness in domain theory". *Seventh Workshop on Formal Topology*, Venice, Italy. 13–17 April 2026.

"Domain theoretic denotational semantics in type theory". *Programming Languages Seminar*, Delft University of Technology, The Netherlands. 12 February 2025.

"Epimorphisms and Acyclic Types in Univalent Mathematics". *Logic and Semantics Seminar*. University of Cambridge, UK. 1 March 2024.

"Set-Theoretic and Type-Theoretic Ordinals Coincide". *Faculty of Science Postdoctoral and Fellow Research Conference*. University of Nottingham, UK. 20 July 2023.

"On acyclic types". *Seminar for foundations of mathematics and theoretical computer science*. University of Ljubljana, Slovenia. 20 April 2023.

"Acyclic types and epimorphisms in HoTT". *Homotopy Type Theory Electronic Seminar Talks (HoTTEST)*. Online. 17 November 2022.

"Acyclic types and epimorphisms in homotopy type theory". *Theoretical Computer Science Seminar*. University of Birmingham, UK. 21 October 2022.

"Domain theory in constructive and predicative HoTT/UF". *Seminar for foundations of mathematics and theoretical computer science*. University of Ljubljana, Slovenia. 31 May 2022.

"Domain theory in constructive and predicative HoTT/UF". *Yorkshire and Midlands Category Theory Seminar (YaMCATS 27)*. Leeds, UK. 12 May 2022.

"Predicative Aspects of Order Theory in Univalent Foundations". *Categories and Types Seminar (CATS)*. Institute for Logic, Language and Computation (ILLC), University of Amsterdam (online). 16 March 2021.

Contributed talks

"The Leibniz adjunction in homotopy type theory, with an application to simplicial type theory". *32nd International Conference on Types for Proofs and Programs (TYPES 2026)*. Gothenburg, Sweden. 8 May 2026.

"(Counter)examples of injective types". *Dutch Categories And Types Seminar (DutchCATS)*, Delft, The Netherlands. 10 April 2026.

"Coherence for Segal types via the Leibniz adjunction". *Proof Systems in Actual Practice: Reasoning and Computation*, Schloss Dagstuhl, Germany. 20 March 2026.

"Type families in place of functions for the benefit of formalization". *Programming Languages Seminar*, Delft University of Technology, The Netherlands. 4 February 2026.

"Formalizing equivalences without tears". *Synthetic mathematics, logic-affine computation and efficient proof systems*, CIRM, France. 12 September 2025.

"Examples and counter-examples of injective types in univalent mathematics". *31st International Conference on Types for Proofs and Programs (TYPES 2025)*. Glasgow, UK. 9 June 2025.

"Epimorphisms and acyclic types". *Category Theory Seminar*. Utrecht University, The Netherlands. 6 May 2025.

"Ordinal Exponentiation in Homotopy Type Theory". *Dutch Categories And Types Seminar (DutchCATS)*, Nijmegen, The Netherlands. 7 February 2025.

"Epimorphisms and acyclic types". *Yorkshire and Midlands Category Theory Seminar (YamCATS 36)*. Online/Leeds, UK. 24 January 2025.

"Formalization in HoTT: equivalences, 3-for-2 and definitional equality". *Trimester Programme "Prospects of Formal Mathematics"*, Hausdorff Research Institute for Mathematics (HIM). Bonn, Germany. 29 May 2024.

"Set-Theoretic and Type-Theoretic Ordinals Coincide". *38th Annual ACM/IEEE Symposium on Logic in Computer Science (LICS 2023)*. Boston, USA. 29 June 2023.

"On epimorphisms and acyclic types in univalent type theory". *29th International Conference on Types for Proofs and Programs (TYPES 2023)*. Valencia, Spain. 12 June 2023.

"On epimorphisms and acyclic types in HoTT". *2nd International Conference on Homotopy Type Theory (HoTT 2023)*. Pittsburgh, USA. 25 May 2023.

"Relating ordinals in set theory to ordinals in type theory". *2nd International Conference on Homotopy Type Theory (HoTT 2023)*. Pittsburgh, USA. 22 May 2023.

"The set-theoretic and type-theoretic ordinals are the same". *Type Theory, Constructive Mathematics and Geometric Logic*, CIRM, France. 4 May 2023.

"Relating ordinals in set theory to ordinals in type theory". *8th Workshop on Homotopy Type Theory and Univalent Foundations (HoTT/UF 2023)*. Vienna, Austria. 22 April 2023.

"Epimorphisms and acyclic types". *Dutch Categories And Types Seminar (DutchCATS)*. Utrecht, The Netherlands. 20 March 2023.

"Order Theory and Propositional Resizing in HoTT/UF". *Homotopy Type Theory Electronic Seminar Talks (HoTTEST) Event for Junior Researchers 2022*. Online. 13 January 2022.

"Sharp Elements and the Scott Topology of Domains". *37th Conference on Mathematical Foundations of Programming Semantics (MFPS 2021)*. Salzburg, Austria (online). 2 September 2021.

"Predicative Aspects of Order Theory in Univalent Foundations". *6th International Conference on Formal Structures for Computation and Deduction (FSCD 2021)*. Buenos Aires, Argentina (online). 22 July 2021.

"Domain Theory in Constructive and Predicative Univalent Foundations". *29th EACSL Annual Conference on Computer Science Logic (CSL 2021)*. Ljubljana, Slovenia (online). 27 January 2021.

"Domain theory in predicative Univalent Foundations". *6th Workshop on Homotopy Type Theory and Univalent Foundations (HoTT/UF 2020)*. Online. 7 June 2020.

"Constructive domain theory in Univalent Foundations". *36th British Colloquium for Theoretical Computer Science (BCTCS 2020)*. Swansea, UK (online). 8 April 2020.

"The Scott Model of PCF in Univalent Type Theory". *8th Workshop on Computability, Continuity, Constructivity — from Logic to Algorithms (CCC 2019)*. Ljubljana, Slovenia. 5 September 2019.

"The Scott Model of PCF in Univalent Type Theory". *25th International Conference on Types for Proofs and Programs (TYPES 2019)*. Oslo, Norway. 11 June 2019.

9 Teaching & supervision

Supervision

Co-supervisor of Codrin Iftode in an internship with Prof. Herman Geuvers.

Assistant supervisor to two PhD candidates at the University of Nottingham

- Aref Mohammadzadeh (December 2024 – May 2026)
- Stiéphen Pradal (October 2022 – September 2026)

I advised Aref and Stiéphen on scientific topics and practical matters of PhD research, through discussions, feedback and questions in weekly supervision meetings.
Stiéphen submitted his PhD thesis *Weak and Semistrict ∞-Categories via the Fat Simplex Category* on 30 September 2026.

Co-supervisor for an MSc final year project, University of Birmingham, 2019–2020.

The project was on the formalization of domain theory in Agda and was awarded the *Distinguished Dissertation Prize*.

Lecturing

Invited lecturer for an introductory course on *Homotopy Type Theory / Univalent Foundations* at the autumn school *Proof and Computation*, Fischbachau, Germany. 13–19 September 2026.

Lecturer for an introductory course on *Homotopy Type Theory / Univalent Foundations* at the *37th European Summer School in Logic, Language and Information (ESSLLI)*, Charles University Prague, Czechia. 10–14 August 2026.

Lecturer for an advanced course on *Categorical realizability* at the *36th European Summer School in Logic, Language and Information (ESSLLI)*, Ruhr University Bochum, Germany. 4–8 August 2025.

Lecturer at the *Midlands Graduate School (MGS) in the Foundations of Computing Science*

- for an advanced course on *Categorical realizability*, University of Leicester, UK. 8–12 April 2024;
- for an introductory course on *Domain theory and denotational semantics*, University of Birmingham, UK. 2–6 April 2023.

MGS is a collaboration between the universities of Birmingham, Leicester, Nottingham and Sheffield. It has been running for twenty-five years, attracts industry sponsors, and is typically attended by a hundred participants from all over the world. This includes mostly PhD students in theoretical computer science, but also postdocs and participants from industry. https://www.cs.nott.ac.uk/MGS/

In both years, my course was the **highest rated** course in the feedback from participants.

Lecturer for *Compilers*, University of Nottingham, UK. 2023–2024.

For this third year undergraduate module I was (jointly) responsible for all module components, including lectures, lab sessions, exam setting and coursework marking.

Lecturer for *Topos theory*, informal course for PhD students, University of Nottingham, UK. 2023–2024.

Teaching assistance

Teaching assistant for *Advanced Functional Programming*, University of Nottingham, UK. 2023.

Teaching assistant, *HoTTEST Summer School 2022*, Online. July–August 2022.

The school ran both synchronously and asynchronously for two months and featured introductions to homotopy type theory and formalization, ending with a series of colloquia introducing more advanced topics and exciting areas for further study. It attracted the interest of over 2000 people who registered.

As a teaching assistant, I was responsible for running tutorial sessions, designing exercises, and responding to questions and requests in the online discussion groups. Our aim was to build community among participants, irrespective of geography.

Teaching assistant, University of Birmingham, UK. 2018–2022.

2021–2022	*Advanced Functional Programming*	3rd year module
	Functional Programming	2nd year module
2020–2021	*Theories of Computation*	1st year module
	Functional Programming	2nd year module
2019–2020	*Functional Programming*	2nd year module
	Network Security	3rd year module
2018–2019	*Models of Computation*	2nd year module
	Mathematical Foundations of Computer Science	1st year module

As a teaching assistant, I was responsible for running tutorials, marking assignments and exams, answering questions by students both in-person and online. In the *(Advanced) Functional Programming* modules I played a major role in the design of assignments, class tests and exams. I also led the teaching assistants in the complex task of designing automated marking scripts that generate useful feedback for students.

Teaching assistant for *Topos Theory* at the *Midlands Graduate School (MGS)*, University of Nottingham, UK. 10–14 April 2022.

This advanced course was taught by Dr. Eric Finster and I was responsible for producing solutions to the exercises.

Teaching assistant for *Univalent Type Theory in Agda* at the *Midlands Graduate School (MGS)*, University of Birmingham, UK. 14–18 April 2019.

This introductory course was taught by Prof. Martín Escardó and I was responsible for assisting students in the exercise classes.

Mentor, *School and Workshop on Univalent Mathematics 2019*, University of Birmingham, UK. 1–5 April 2019.

I was responsible for assisting students with both the theory and practice of type theory, in particular the formalization of mathematics in the proof assistant *Coq*.

Teaching assistant, Utrecht University, The Netherlands. 2017–2018.

Period 2/4 (2017–2018)	*Group Theory*	1st year BSc course
Period 1/4 (2017–2018)	*Foundations of Mathematics*	3rd year BSc course

Duties included: running exercises classes, marking homework and explaining homework solutions.

Assistant maths teacher, Stichting Studiebegeleiding Leiden, The Netherlands. 2014–2018.

Organized three-day training courses aimed at secondary school students preparing for their maths finals. Duties included correcting exercises and providing students with feedback and help in exercise classes.

10 Professional service

Co-maintainer of *TypeTopology*. Together with Martín Escardó, I maintain and regularly review additions (pull requests) for *TypeTopology*, a development of formalized mathematics in the proof assistant Agda.

Reviewing requests from

- Journals: *Advances in Mathematics (AiM)*, *Annals of Pure and Applied Logic (APAL)*, *Applied Categorical Structures (APCS)*, *Information and Computation*, *Information Processing Letters (IPL)*, *Journal of Logic and Computation (JLC)*, *Journal of Symbolic Logic (JSL)*, *Lecture Notes in Computer Science (LNCS)*, *Logical Methods in Computer Science (LMCS)*, *Mathematical Logic Quarterly (MLQ)*, *Mathematical Structures in Computer Science (MSCS)*, and *Rocky Mountain Journal of Mathematics*.

  (*IPL* features concise research contributions on fundamental aspects of information processing and theoretical computer science.)
- Conferences (excluding PC membership): *International Conference on Types for Proofs and Programs (TYPES)*, *International Conference on Formal Structures for Computation and Deduction (FSCD)*, *ACM/IEEE Symposium on Logic in Computer Science (LICS)* (2024–2026).

Editor of the proceedings of the *7th Workshop on Formal Topology*, with Prof. Giovanni Sambin (University of Padova, Italy) and Dr. Ulrik Buchholtz (University of Nottingham, UK).

Committees

Hiring committee member at the University of Nottingham

- Postdoc positions (two); 3–4 September 2025
  Panel members: Prof. Nicolai Kraus (PI), Prof. Graham Hutton (group lead)
- PhD positions (two); 4–6 February 2025
  Panel members: Prof. Nicolai Kraus (prospective supervisor)

Defence committee member for the *Master of Logic* theses

- *A Realisability Model of Dependent Type Theory with Sizes* of Bas Laarakker, supervised by Dr. Benno van den Berg and Daniël Otten (26 August 2025)
- *Homotopy Theory of Computable Spaces* of Alyssa Renata, supervised by Dr. Benno van den Berg (27 August 2024)

Institute for Logic, Language and Computation (ILLC), University of Amsterdam.

Steering committee member (elected) for the *International Conference on Types for Proofs and Programs (TYPES)*, since June 2024. Secretary since June 2025.

Programme committee member for

- the *14th International Workshop on Fixed Points in Computer Science (FICS 2027)*, 25–26 January 2027 in Brighton, UK;

- the *35th EACSL Annual Conference on Computer Science Logic 2027 (CSL 2027)*, 25–29 January 2027 in Brighton, UK;
- the *42nd conference on Mathematical Foundations of Programming Semantics (MFPS XLII)*, 3–5 June 2026 in Ljubljana, Slovenia;
- the *16th Conference on Interactive Theorem Proving (ITP)*, 29 September–3 October 2025 in Reykjavik, Iceland;
- the *31st International Conference on Types for Proofs and Programs (TYPES)*, 9–13 June 2025 in Glasgow, UK;
- *Certified Programs and Proofs (CPP)*, 20–21 January 2025 in Denver, USA;
- the *Workshop on Homotopy Type Theory / Univalent Foundations (HoTT/UF)*, 22 & 23 April 2023 in Vienna, Austria.

Organizing committee member for the *Workshop on Homotopy Type Theory/ Univalent Foundations (HoTT/UF)*, 2–4 April 2024 in Leuven, Belgium and 15–16 April 2025 in Genoa, Italy.

Artifact evaluation committee member for the *51st ACM SIGPLAN Symposium on Principles of Programming Languages (POPL 2024)*, 17–19 January 2024 in London, UK.

Organization & outreach

Co-organizer of *FSCD-CADE 2027*. 21–27 August 2027, Nijmegen, The Netherlands. https://fscd-cade.science.ru.nl/

Co-organizer of the *Homotopy Type Theory Electronic Seminar Talks (HoTTEST)*, the homotopy type theory community's online seminar series. February 2026 – present. https://hottest-seminar.github.io/

Co-organizer of the *Dutch Categories and Types Seminar (DutchCATS)*. September 2026 – present. https://dutchcats.github.io/

Co-founder and **co-organizer** of *ASSUME*, a specialist seminar series on univalent mathematics and type theory, alternating between the University of Nottingham and University of Birmingham, UK. December 2022 – June 2026.

Dr. Eric Finster and I founded this seminar series as a way to drive research in homotopy type theory and foster collaboration between the two universities. As of May 2026, we have had 16 meetings, each attracting between 15 and 25 participants; I organized 8 of them in Nottingham. https://tdejong.com/ASSUME

Co-organizer of the *112th Peripatetic Seminar on Sheaves and Logic (PSSL)*, University of Nottingham, UK. 28–29 March 2026. https://sites.google.com/view/pssl112/

Co-organizer of the two-day workshop *Types and Topology* held in celebration of Martín Escardó's 60th birthday, University of Birmingham, UK. 17–18 December 2025. https://tdejong.com/mhe60

Co-organizer of the *Heyting Day 2025 — Models of intuitionism and computability: Symposium in honour of Jaap van Oosten*, The Royal Netherlands Academy of Arts and Sciences, Amsterdam, The Netherlands. 14 March 2025. https://www.knaw.nl/en/heyting-day-2025

Representative of the *Functional Programming Lab* for an EPSRC (Engineering and Physical Sciences Research Council) visit, University of Nottingham, UK. 17 April 2024.

Jacob Neumann and I designed a poster showcasing the research of our group. https://tinyurl.com/fp-lab-poster.

Co-organizer of the weekly *Theoretical Computer Science* seminar, *University of Birmingham*, UK. 2022.

I invited external speakers from all over the UK to give talks in the seminar.

Co-organizer of a weekly seminar for PhD students and postdocs in *Theoretical Computer Science*, *University of Birmingham*, UK. 2018–2022.

This seminar provided excellent opportunities for PhD students to practice their conference talks and moreover helped to build a sense of community.

Local co-organizer of the *School and Workshop on Univalent Mathematics 2019*, *University of Birmingham*, UK. 1–5 April 2019.

Responsibilities included sorting out catering, teaching venues, IT support, reimbursements, etc.