

Curriculum Vitae  
**Tristan van der Vlugt**

April 2024

**CONTACT**

Name Tristan van der Vlugt  
Nationality Dutch (the Netherlands)  
Email [tristan.van.der.vlugt@tuwien.ac.at](mailto:tristan.van.der.vlugt@tuwien.ac.at)  
Website <https://tvdvlugt.nl/>

**RESEARCH INTERESTS**

Set theory (cardinal characteristics, forcing, infinitary combinatorics, higher Baire spaces)  
Modal logic (modal logic of forcing).

**EDUCATION**

Doctoral degree (magna cum laude) Dissertation title: **Higher Baire Spaces: Cardinal Characteristics, Higher Reals & Bounded Spaces**,  
*Hamburg University*,  
Hamburg, Germany  
Referees: Jörg Brendle, Benedikt Löwe & Joan Bagaria,  
graduated in 2024

Master's degree in **Mathematical Sciences** with specialisation in mathematical logic,  
*Utrecht University*,  
Utrecht, the Netherlands  
thesis supervisors: Jörg Brendle (Kobe U) & Jaap van Oosten,  
graduated in 2020

Bachelor's degree in **Mathematics**,  
*University of Groningen*,  
Groningen, the Netherlands,  
thesis supervisor: Gerard Renardel de Lavalette,  
graduated in 2015

High school *Praedinius Gymnasium*,  
Groningen, the Netherlands,  
graduated in 2011

**ARTICLES & PREPRINTS**

- —, **Separating Many Localisation Cardinals on the Generalised Baire Space**, 2023, accepted in the Journal of Symbolic Logic
- —, **Cardinal Characteristics on Bounded Generalised Baire Spaces**, 2023, submitted, preprint available on arXiv:2307.14118

**THESES**

- **Higher Baire Spaces: Cardinal Characteristics, Higher Reals & Bounded Spaces**, *Doctoral dissertation*, written under supervision of Jörg Brendle (Kobe University) and Benedikt Löwe (Hamburg University), 2024, available at <https://tvdvlugt.nl/dthesis.pdf>

- **Rearrangement and Subseries numbers**, *Master's thesis*, written under supervision of Jörg Brendle (Kobe University) and Jaap van Oosten (Utrecht University), 2020, available at <https://tvdvlugt.nl/mthesis.pdf>
- **Computation on the Size of the Fragment  $[\wedge, \vee, \neg\neg]^n$  of Intuitionistic Logic**, *Bachelor's thesis*, written under supervision of Gerard Renardel de Lavalette (University of Groningen), 2015, available at <https://tvdvlugt.nl/bthesis.pdf>

#### OTHER WRITING

- **Modal Logic for Artificial Intelligence**, *lecture notes*, with Jan Broersen (Utrecht University), work in progress on hold due to course reorganisation. Can be downloaded at <http://tvdvlugt.nl/mlbook.pdf>.

#### TALKS

- **Rearrangement and Subseries Numbers**, STiHAC, November 2020
- **A Higher Counterpart to Random Forcing**, STiHAC, March 2021
- **Slalom Cardinals**, STiHAC, December 2021
- **Localisation Cardinals on the Generalised Baire Space**, Kobe Set Theory Seminar, June 2022
- **An Overview of (Anti-)Localisation Cardinals on Products of Discrete Spaces**, STiHAC, July 2022
- **Localisation Cardinals on the Generalised Baire Space**, RIMS Set Theory Workshop at RIMS, Kyoto University, Japan, October 2022
- **A Presentation About Hats**, Logic Seminar at Kobe University, Japan, December 2022
- **A Presentation About Hats & Predicting the Future**, STiHAC, December 2022
- **Separating  $\kappa^+$  many localisation cardinals**, STiHAC, March 2023
- **(Anti-)Localisation Cardinals on the Generalised Baire Space**, Sixth Workshop on Generalised Baire Spaces, July 2023
- **Dominating and Eventually Different  $\kappa$ -Reals**, STiHaC, December 2023
- **Combinatorial  $\kappa$ -reals in the higher Baire space**, Winter School in Abstract Analysis in Hejnice, Czech Republic, February 2024

#### TEACHING EXPERIENCE

- TA for **“Wiskunde & Statistiek voor Farmacie”** (2013, 2014, University of Groningen)  
A course in basic calculus, statistics and mathematical programming (Maple) for Bachelor students in Pharmacy.
- TA for **“Logic for Artificial Intelligence”** (2017, 2018, Utrecht University)  
A course teaching the basics of Modal Logic and Epistemic Logic for Bachelor students in Artificial Intelligence. In 2019 / 2020 I additionally help with writing new lecture notes and exercises.
- TA for **“Logical Complexity”** (2018, Utrecht University)  
A course teaching the basics of Computability & Complexity Theory to Bachelor students in Artificial Intelligence.
- TA for **Mathematische Logik und Mengenlehre** (2023, University of Hamburg)  
Introductory undergraduate course in mathematical logic and set theory.
- TA for **Grundkonzepte Geometrie** (2023, 2024, University of Hamburg)  
A course teaching foundational geometry to future elementary school teachers.

## **OTHER SKILLS & HOBBIES**

**Languages:** Fluent in Dutch (native), English and German, conversational in Japanese.

I play piano, flute and bass guitar, and enjoy both writing and playing music. I have been part of several bands, notably of Sprokkelhout and Ei Jeans Boys, and have a solo project named Golfryder.

I am a 5-kyu at Go / Baduk / Weiqi, and a moderator at the Online Go Server.

I occasionally draw comics about penguins, and place them on <http://dailypengin.com/>