

Davide Manca, M. Sc.

Birth date: 9/03/1994 | **Nationality:** Italian | **Gender:** Male | **Phone:** +393387722989

✉ davide.manca@uni-wuerzburg.de ✉ d.manca.math@gmail.com

🌐 www.linkedin.com/in/davide-manca-47b9b9304

🌐 <https://d-manca-logic.github.io/>

🌐 <https://www.mathematik.uni-wuerzburg.de/mathematicallogic/team/manca-davide/>

Education

I have developed an interest in mathematical logic during the final year of my Bachelor in Bari. During my stay in Turin, I have attended courses in set theory, model theory and philosophy of mathematics.

- 2013 – 2018 📖 **B. Sc. in Mathematics**, Università degli studi di Bari Aldo Moro, Italy.
Final grade: 110/110
- 2018 – 2021 📖 **M. Sc. in Mathematics**, University of Turin, Italy.
Final grade: 110/110 cum laude.
- 2022 – 2025 📖 **PhD candidate in Mathematics**, Technische Universität Darmstadt (until March 2023), Julius-Maximilians-Universität Würzburg (since April 2023), Germany
Dissertation submitted in February 2025.
Supervisor: Prof. Dr. Anton Freund.

I moved from Darmstadt to Würzburg as prof. Freund obtained a permanent position there.

Employment

- 2022 – 2025 📖 **Researcher (Wissenschaftlicher Mitarbeiter)**, at Technische Universität Darmstadt (until March 2023), Universität Würzburg (since April 2023), Germany.

Research interests and publications

I have worked in the field of proof theory. In particular, my research work dealt with the reverse mathematics of well orders and similar structures, such as better quasi-orders and their variants.




- 1 A. Freund and D. Manca, “Normal functions and maximal order types,” *Journal of Logic and Computation*, vol. 34, no. 6, pp. 1064–1081, 2024, ISSN: 0955-792X,1465-363X.
- 2 D. Manca, “Some results on the reverse mathematics of finite better quasi-orders,” *Submitted*, 2024, currently under revision.
- 3 A. Freund and D. Manca, “Weak well orders and Fraïssé’s conjecture,” *The Journal of Symbolic Logic*, pp. 1–16, 2023. [🔗 DOI: 10.1017/jsl.2023.70](https://doi.org/10.1017/jsl.2023.70).

Conferences:


I have given the following talks:

- March 2025 (*Invited*) 📖 **Better quasi-orders on labeled trees**, Weihrauch Complexity: Structuring the Realm of Non-Computability, Schloss Dagstuhl – Leibniz Center for Informatics, Germany.
- June 2024 📖 Δ_2^0 -**better quasi orders in reverse mathematics**, Logic Colloquium 2024, University of Gothenburg, Sweden.

Conferences: (continued)

- February 2024  **Untitled talk on the reverse mathematics of Δ_2^0 -bqo's**, Trends in proof Theory 2024, University of Wien, Austria.
- June 2023  **On a weak notion of well order**, Logic Colloquium 2023, University of Milan, Italy.
- January 2023  **Hereditarily countable sets with urelements in a quasi order**, Trends in Proof Theory 2023, University of Ghent, Belgium.

Upcoming conferences:

- August 2025 (*Invited*)  **Infinitary Proof Theory: Techniques and Applications**, Casa Matemática Oaxaca, Mexico.

Teaching

I have taught part of the exercise lectures of Prof. Freund's logic courses:

- Winter semester 2024-2025, teaching duty shared with K. Kowalik.
- Summer semester 2022, teaching duty shared with P. Uftring

Languages

Italian (Native), English (Advanced), German (Basic).