CV: Will J. Turner

https://wjturner.co.uk/research.html

TU Bergakademie Freiberg, November 2026

Final-year PhD under supervision of Johannes Carmesin. After graduating with a masters from the University of Birmingham in 2022, I began my PhD. In April 2024, I moved to TU Freiberg along with Carmesin's research group and expect to finish my PhD in April of 2027.

April 2024	graduation April 2027	PhD Math. (continued) TU Freiberg
October 2022	March 2024	PhD Math. University of Birmingham
October 2018	July 2022	MSci Math. Univeristy of Birmingham

Publications and preprints

1. J. Carmesin and W.J. Turner, "A graph minors approach to temporal sequences", *Symposium on the Theory of Computing (STOC) June 2026*, (71 p.) arxiv
2. J. Carmesin and W.J. Turner, "Hardness of planarity for weak temporal sequences of 2-connected graphs", *Theoretical Computer Science Vol. 1070, April 2026*, (21 p.) arxiv
3. B.M. Bumpus, J. Fairbanks and W.J. Turner, "Pushing tree decompositions along graph homomorphisms", *Applied Categorical Structures Vol. 34, October 2026*, (30 p.) arxiv
4. B.M. Bumpus, G.C.M. Gomes, L. Larios-Jones and W.J. Turner, "Co-Decompositions and FO Model Checking", preprint Nov 2026, (52 p.) arxiv
5. W.J. Turner, "Graphic matroids with connectivity constraints", draft Nov. 2026, (48 p.) arxiv
6. J. Carmesin, G. Kontogeorgieu, J. Kurkofka, W.J. Turner, "Towards a Stallings-type theorem for finite groups", preprint March 2024, (27 p.) arxiv

Selected Talks

1. STOC - June 2026 - "A graph minors approach to temporal sequences"
2. CanaDAM invited minisymposium on Matroid Theory - May 2025
3. Bertinoro Workshop on Algorithms and Graphs - October 2025
4. Invited seminars including: U.o. Warwick, U.o. Hamburg, HPI Postdam, U. São Paulo

Teaching

1. Vorkurs: Aussagelogik und Mengentheorie - October 2026
2. Since 2024, I have demonstrated (in English and German) for discrete maths and TCS modules
3. Two-part seminar series at TU Freiberg pertaining to my work "Graphic matroids with connectivity constraints" - November 2024
4. Chair for talks at the 'Birmingham Maths Research Festival 2022', an event for prospective PhD students - 2022