

ANNA PARLAK

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<https://annaparlak.github.io/>

EMPLOYMENT

University of California Davis, United States *July 2022 - now*
Krener Assistant Professor

University of Oxford, United Kingdom *May 2021 - July 2022*
Postdoctoral Research Associate in Pure Mathematics
Funded by the Simons Investigator Award of Professor Vladimir Marković

EDUCATION

University of Warwick, United Kingdom *October 2017 - August 2021*
Mathematics, PhD
Supervisor: Saul Schleimer
Thesis: *Veering triangulations and polynomial invariants of three-manifolds*
Submitted: 16th of April 2021, Awarded: 19th of August 2021

University of Gdańsk, Poland *October 2015 - July 2017*
Mathematics, MSc
Supervisor: Michał Stukow
Thesis: *Roots in the mapping class group of a nonorientable surface* (in Polish)

University of Gdańsk, Poland *October 2012 - July 2015*
Mathematics, BSc
Supervisor: Witold Rosicki
Thesis: *Relations between knots and planar graphs: Tait's constructions, Fox colourings and quandles* (in Polish)

University of Gdańsk & Medical University of Gdańsk, Poland *October 2010 - July 2013*
Biotechnology, BSc
Supervisor: Stanisław Oldziej
Final project: *Phosphorylation-induced conformational changes of tau protein* (in Polish)

RESEARCH INTERESTS

low-dimensional topology · dynamics on 3-manifolds · polynomial invariants of 3-manifolds ·
pseudo-Anosov · veering triangulations · mapping class groups

PAPERS AND PREPRINTS

1. *The taut polynomial and the Alexander polynomial*
28 pages, [arXiv:2101.12162](#) [math.GT]. Submitted.
2. *Computation of the taut, the veering and the Teichmüller polynomials*
Exp Math, DOI: [10.1080/10586458.2021.1985656](#) (2021). [arXiv:2009.13558](#) [math.GT].
3. *Roots of Dehn twists on nonorientable surfaces* (with Michał Stukow)
J Knot Theor Ramif, Vol. 28, No. 12, 1950077 (2019). [arXiv:1701.00531](#) [math.GT].
4. *Roots of crosscap slides and crosscap transpositions* (with Michał Stukow)
Period Math Hung, Vol. 75, Issue 2, pp. 413 – 419 (2017). [arXiv:1601.06096](#) [math.GT].

AWARDS

- Warwick Mathematics Institute 2022 Thesis Prize
- The Minister of Science and Higher Education Scholarship 2016/2017 (Poland)

TALKS

- 2022:** AMS – EMS – SMF International Meeting, Grenoble, July 2022
seminars: Washington University in St. Louis, University of Bristol
- 2021:** North Meets South Colloquium, University of Oxford, November 2021
Nearly Carbon Neutral Geometric Topology Conference, June 2021
seminars: University of Copenhagen, University of Oxford, University of Texas at Austin, Cornell University
- 2020:** **seminars:** Oklahoma State University, University of California Riverside
- 2017:** Young Topologists Meeting 2017, Stockholm, July 2017
- 2016:** The 19th International Workshop for Young Mathematicians: Algebraic Geometry, Jagiellonian University, September 2016
18th Andrzej Jankowski Memorial Lecture Mini Conference, University of Gdańsk, May 2016
- 2015:** The 18th International Workshop for Young Mathematicians: Algebraic and Differential Topology, Jagiellonian University, September 2015.

TEACHING EXPERIENCE

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| 2020/2021 | Teaching assistant for MA131 Analysis I (4 hours per week in term 1) |
| 2019/2020 | Supervisor* for 10 first year Maths undergraduates (2 groups)
Teaching assistant for MA131 Analysis I (4 hours per week in term 1)
Teaching assistant for MA131 Analysis II (1 hour per week in term 2) |
| 2018/2019 | Supervisor* for 10 first year Maths+Physics undergraduates (2 groups)
Teaching assistant for MA3H6 Algebraic Topology (1 hour per week teaching, weekly marking of around 40 homework scripts, term 2) |

Exam marking: MA131 Analysis I (once), MA251 Algebra I: Advanced Linear Algebra (twice), MA137 Mathematical Analysis (once)

*A first year undergraduate supervisor meets with a group of 5 students twice a week to discuss their progress in core modules (Foundations, Analysis I, Introduction to Abstract Algebra, Differential Equations, Analysis II, Linear Algebra, Geometry and Motion).

SERVICE

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| 2021/2022 | Early Career Researcher Committee (Oxford), Whitehead Library Committee (Oxford) |
| 2018/2019 | Organizer of the Topology Reading Seminar (Warwick) |

CITIZENSHIP

Polish (European Union)