

# NIKLAS HELLMER

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Dioscuri Centre for Topological Data Analysis  $\diamond$  Mathematical Institute

Polish Academy of Sciences  $\diamond$  ul. Śniadeckich 8, 00-656 Warsaw, Poland

## EDUCATION

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**Polish Academy of Sciences, Warsaw, PL**

PhD in Mathematics

*Oct. 2020 – Sep. 2024*

**Swansea University, Swansea, UK**

PhD in Mathematics

*Jan. 2020 – Sep. 2020*

**University of Bonn, Bonn, DE**

Master of Science in Mathematics

*Oct. 2017 – Sep. 2019*

Bachelor of Science in Mathematics

*Oct. 2014 – Sep. 2017*

## AWARDS AND HONORS

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PhD Scholarship, Swansea University, 2020.

PhD Scholarship, Doctoral School of Exact and Natural Sciences, Warsaw, 2020

PhD Scholarship, Dioscuri Centre for Topological Data Analysis, Warsaw, 2020.

## PUBLICATIONS

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### Preprints

- [1] A. Mahdi, P. Błaszczuk, P. Dłotko, D. Salvi, T.-S. Chan, J. Harvey, D. Gurnari, Y. Wu, A. Farhat, N. Hellmer, A. Zarebski, B. Hogan, and L. Tarassenko, “Oxcovid19 database: A multimodal data repository for better understanding the global impact of covid-19,” *medRxiv*, 2020. DOI: <https://doi.org/10.1101/2020.08.18.20177147>.

## TALKS

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[New Metrics for Persistence Diagrams](#). Second Symposium on Machine Learning and Dynamical Systems, online due to COVID-19, Fields Institute, Toronto, Sep 29, 2020.

## TEACHING

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**Teaching Assistant, Analysis I**

*University of Bonn*

winter term 2016/17

Graded homework and held biweekly recitation and problem classes for 20 students.

**Teaching Assistant, Analysis II**

*University of Bonn*

summer term 2018

Graded homework and held weekly recitation and problem classes for 20 students.

**Student Demonstrator, Matlab (MA-162)**

*Swansea University*

lent term 2020

Graded homework and held weekly Matlab tutorial classes for 80 students.

## OTHER QUALIFICATIONS

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### Languages

English: C2

French: A1

Latin: Latinum

### Programming

Python, R, C-like languages, Matlab, L<sup>A</sup>T<sub>E</sub>X

pandas, scikit, gudhi

## OTHER ACTIVITIES AND NON-ACADEMIC POSITIONS

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### University Politics

Member of the student parliament of the University of Bonn 2016-2018

Member of the student parliament's budget committee 2017-2019

Head of the budget committee 2019

## REFERENCES

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### Paweł Dłotko

Dioscuri Centre for TDA

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### Adam Mahdi

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