

YANNIK THOMAS

Webpage

Email: yannik.thomas@uni-potsdam.de

CURRENT POSITION

- PhD Candidate at University of Potsdam

Since April 2023

Supervisors: Dr. Siegfried Beckus and Prof. Dr. Matthias Keller

RESEARCH INTERESTS

- Schrödinger Operators associated to Quasicrystals
- Spectral Theory

EDUCATION

University of Potsdam

October 2020 - April 2024

M.Sc. in Mathematics

Thesis: 'Non-Euclidean Estimates for Sturmian Hamiltonians'

Final Grade: 1.2 ('with distinction')

University of Potsdam

April 2018 - February 2021

B.Sc. in Mathematics with minor subject Physics

Thesis: 'Der Arnold-Maslov Index für geschlossene Kurven in der Klassischen Mechanik'

Final Grade: 1.7 ('good')

TEACHING EXPERIENCE

Summer 2023 Functional Analysis II

Summer 2023 Functional Analysis I

Winter 2022 Analysis I

Summer 2022 Linear Algebra and Analytic Geometry II

Winter 2021 Linear Algebra and Analytic Geometry I

Summer 2021 Mathematics for Physics IV

Winter 2020 Mathematics for Biology II

Summer 2020 Problem Solving in Mathematics

Winter 2019 Mathematics for Biology II

Summer 2019 Mathematics for Physics II

Winter 2018 Mathematics for Economy Students I

Mathematics for Physics I

Summer 2018 Theoretical Physics I

PAST POSITIONS

- Student assistant at GFZ German Research Centre for Geosciences, Potsdam

2017 - 2018

- Various TA duties at University of Potsdam, Potsdam

2018 - 2023

COMMUNITY WORK

- Elected member of the Students Council of for students in Mathematics and Physics at University of Potsdam 2018 - 2020
- Participant at the Bundesfachschaftentagung KoMa in Augsburg 2019
- Participant at the Bundesfachschaftentagung ZaPF in Siegen 2017

PUBLICATIONS

- [1] R. Band, S. Beckus, B. Biber, L. Raymond, and Y. Thomas, “A review of a work by Raymond: Sturmian Hamiltonians with a large coupling constant - periodic approximations and gap labels,” 2024, Submitted. [Online]. Available: <https://arxiv.org/abs/2409.10920>.
- [2] S. Beckus, J. Bellissard, and Y. Thomas, “Spectral regularity and defects for the kohmoto model,” 2024, Preprint. [Online]. Available: <https://arxiv.org/abs/2410.17722>.
- [3] L. Pick, M. Korte, Y. Thomas, N. Krivova, and C. Wu, “Evolution of large-scale magnetic fields from near-earth space during the last 11 solar cycle s,” *Journal of Geophysical Research: Space Physics*, vol. 124, no. 4, pp. 2527–2540, 2019.

WORKSHOPS, CONFERENCES, TALKS

- August 2024* Algebra, Analysis and Aperiodic Order - Bielefeld, Germany
- July 2024* Walkshop on Mathematical Physics - ‘*Sturmian Hamiltonians and the Kohmoto Butterfly*’ - Hagen, Germany
- December 2023* Seminar Talk - ‘*Non-Euclidean Estimates for Sturmian Hamiltonians*’ - Bielefeld, Germany
- August 2023* Summer School ‘Spectral theory and geometry of ergodic Schrödinger operators’ - Potsdam, Germany