

Tom Bleher

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RESEARCH EXPERIENCE

Tel Aviv University

Research Assistant

- Conducting simulations to evaluate particle detectors for the Electron-Ion Collider.

Tel Aviv, Israel

May 2024 – Present

Max Planck Institute for Plasma Physics

Research Assistant

- Developed internal simulation tools to assess next generation fusion reactor concepts.

Munich, Germany

Sep 2024 – Oct 2024

Max Planck Institute for Plasma Physics

Research Assistant

- Analyzed plasma profiles to examine impurity transport, contributed to an upcoming paper.

Greifswald, Germany

Feb 2024 – Apr 2024

Institut national de la recherche scientifique

Research Assistant

- Developed software to optimize x-ray flux in laser wakefield acceleration by correction of optical components.

Montreal, Canada

Oct 2023 – Jan 2024

Tel Aviv University (with Stanford)

Research Assistant

- Designed CAD models and assisted experimental setup for direct laser acceleration using a heavy water microjet.

Tel Aviv, Israel

Aug 2023 – Oct 2023

Weizmann Institute of Science

Research Assistant

- Analyzed experimental data to examine theoretical predictions on ultra-light dark matter behavior.

Rehovot, Israel

Jul 2023

EDUCATION

Tel Aviv University

Bachelor of Science in Physics and Mathematics

- Coursework: Analysis I, Linear Algebra I, Physics I, Set Theory, Math for Physics I, Physics Lab I, British Culture I.

Tel Aviv, Israel

May 2024 – Present

Herzliya Hebrew Gymnasium

Physics, Mathematics, Computational Physics, Mechatronics

- GPA: 93/100; SAT: 1450/1600 (Translated to Psychometric: 718/800)

Tel Aviv, Israel

Sep 2020 – Jun 2023

PUBLICATIONS AND POSTERS

- T. Romba, F. Reimold, S. Bannmann, A. Navarro, **T. Bleher**, et al. (2024). Characterizing scenarios of suppressed anomalous impurity transport in Wendelstein 7-X (Paper submitted to IOPscience Nuclear Fusion).
- F. Leindecker, T. Luda, M. Dunne, E. Fable, **T. Bleher**, et al. (2025). Investigation of benign edge scenarios with the tokamak design suit DYT (Abstract and Poster submitted to DPG Göttingen 2025 conference).

AWARDS & RECOGNITION

- Full-ride scholarship recipient, representing Israel at the ISSI program, Weizmann Institute of Science.
- Placed 2nd in the Schwartz-Reisman poster competition for computational physics with "Spontaneous Synchronization of Fireflies" and 3rd for "Wave Simulation in non-uniform Medium."

LEADERSHIP & ACTIVITIES

Hapoel Beit Dani Wrestling Club

Wrestler, Team Captain

- Led a team of 30 wrestlers, competing nationally and internationally, and served as a past Israel national team member. Organized and motivated team activities and training sessions.

Tel Aviv, Israel

Oct 2012 – Present

Middle East Entrepreneurs of Tomorrow

Student, Teaching Assistant

- Instructed Python to high school students to enrich their existing curriculum.
- Facilitated learning by mentoring, hosting office hours, and creating team bonding activities, enhancing student engagement.

Jerusalem, Israel

Sep 2019 – Feb 2023

SKILLS & INTERESTS

Technical Skills: Python, Linux, CAD, JavaScript, Git, LaTeX

Foreign Languages: Hebrew (Native), English (Bilingual), Lithuanian (Proficient), Russian (Conversational)

Interests: Guitar Playing, Vinyl Collecting, Classical Novels, Geopolitics, History, Science Education, Journal, Poems, Self-study