

PERSONAL INFORMATION

Sameh Othman



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🆔 ORCID [0000-0002-6492-403X](https://orcid.org/0000-0002-6492-403X)

Date of birth 23 October 1992 | Nationality Palestinian

WORK EXPERIENCE

- Mar 2024 – Present

Carpentry Instructor

The Carpentries

I have taught foundational coding and data science skills in multiple courses on Git, Bash, Python, and Python libraries as a solo instructor, co-instructor to researchers worldwide.
- Feb 2024 – Present

Steering committee member

Scientist For Palestine

As a member of Scientists for Palestine, I am dedicated to fostering scientific collaboration, and advocating for the rights of Palestinian scientists to engage in global research networks.
- Jul 2021 – Present

PhD Researcher

Forschungszentrum Jülich, Germany

I design, run, and analyze molecular dynamic simulations of active matter with alignment field using LAMMPS and Python.

– Co-supervised two Bachelor students and three high school students on different projects.
- Oct 2020 – May 2021

Research Internship

Max Planck Institute for Intelligent Systems, Germany

I enhanced a Bayesian community detection framework by modeling non-exposure to address sampling bias, improving graph reconstruction and maintaining community recovery performance. Introduced probabilistic estimation for node exposure, advancing machine learning applications in network analysis.
- Feb 2016 – Jun 2017
Oct 2018 – Jun 2020

Observatory Operator/ Manager

Birzeit University, Palestine

I managed the university observatory, the largest in Palestine, organizing educational events for up to 1,500 visitors. Taught astronomy basics and telescope operation to students. Supervised the astronomy club, coordinating activities and hosting international speakers.

EDUCATION

- 2021 – present

PhD in Statistical Physics

University of Cologne, Germany

PhD - Thesis Title: "Active Brownian Particles in Alignment Field"
- 2016 – 2020

Master's Degree in Physics

Birzeit University, Palestine
- Oct 2017 – Sep 2018

Research visit at FZJ for master thesis project.
- 2010 – 2016

Bachelor's Degree in Physics/ Minor Computer Science

Birzeit University, Palestine

OTHER ACTIVITIES

- 2020 – Present **Member of Code/Astro** [Code/Astro](#)
 What started as an online participant during covid times evolved to be an in-person and online teaching assistant and organizer for multiple years.
- 2018 – Present **Schools committee member** [Scientist For Palestine](#)
 As a member of the schools committee, we work along the year each year to provide Palestinian university student with a school given by international lecturers on different topics. We aim to expose the students to the international science and provide them with answers on different topics to find their field of interest.
- 2018 – Present **Founding member of NOVA for Astronomy and Space Science** [Palestine](#)
 We have created a non-profit society to fill a need in the society and education system for astronomy. We organize public, private, and school events and visits to teach and promote astronomy through lectures, activities, workshops, trainings and observations.

AWARDS AND HONORS

- Aug 2022 Awarded the best master thesis in Palestine in science at The Seventh Palestinian Conference on Modern Trends in Mathematics and Physics
- Jul 2021 – Dec 2024 Awarded a fellowship through the Palestinian-German Science Bridge to conduct my Ph.D. research at the Institute for Advanced Simulation (IAS-2), FZJ, Juelich, Germany.
- Oct 2017 – Sep 2018 Received funding for a 12 months master thesis research visit at FZJ, Juelich, Germany through the Palestinian-German Science Bridge.
- Feb 2016 – May 2020 Received work and study scholarship throughout my master studies at Birzeit University.

CONFERENCES

- May 2024 Annual Meeting SoftComp, Lyon, France. Poster.
- May 2023 Annual Meeting SoftComp, Ancona, Italy. Talk.
- May 2023 Invited talk, University of Burgundy, Dijon, France. Talk.
- Sep 2022 NIC Symposium , FZJ, Juelich, Germany. Poster.
- Jul 2019 Jordanian School of Space Sciences II, Amman, Jordan.
- Sep 2018 The current and future observing facilities, Belgrade, Serbia.
- Jan 2018 Filaments, Membranes, Cells and their Interactions, FZJ, Juelich, Germany. Poster.
- Nov 2014 Jülich Soft Matter Days 2014, Bonn, Germany.

ARTICLES

- Feb 2024 **S. Othman**, J. Midya, T. Auth, G. Gompper. Phase Behavior and Dynamics of Active Brownian Particles in an Alignment Field. DOI: <https://arxiv.org/abs/2403.02947>.
- Jul 2022 **S. Othman**, J. Schulz, M. Baity-Jesi, C. De Bacco. Modeling Node Exposure for Community Detection in Networks. DOI: https://doi.org/10.1007/978-3-031-21131-7_18.

- Mar 2018** Q. Yu, **S. Othman**, S. Dasgupta, T. Auth, G. Gompper. Nanoparticle wrapping at small non-spherical vesicles: curvatures at play. DOI: <http://dx.doi.org/10.1039/C7NR08856F>.
- May 2017** H. Abusara, Shakeb Ahmad, **S. Othman**. Triaxiality softness and shape coexistence in Mo and Ru isotopes. DOI: <http://dx.doi.org/10.1103/PhysRevC.95.054302>.
- May 2020** **S. Othman**, A. Sayyed-Ahmad, T. Auth. Nanoparticle-Membrane Interactions a systematic study of the electric charge contribution to the wrapping process. DOI: https://www.researchgate.net/publication/342336471_Nanoparticle-Membrane_Interactions_a_systematic_study_of_the_electric_charge_contribution_to_the_wrapping_process.

PERSONAL SKILLS

Languages Arabic (Mother tongue), English (B2), German (A2)

Communication skills

- Team work: I have collaborated with diverse teams, including international research groups, university clubs, and national teams.
- Mediating skills: I have worked with different levels of employees and students at Birzeit university to manage and operate the university observatory to become well-known around Palestine. I taught Python and astronomy to learners of all ages, young children to seniors.
- Intercultural skills: I am experienced at working in an international and youth camps in Palestine and abroad.

Organisational / managerial skills

- As a member of the school committee at Scientist4Palestine, I co-organized and managed four summer schools for graduate students from all Palestinian universities. Still working on future schools.
- As a co-founder of NOVA for astronomy and space science society in Palestine, I co-organized, and managed the society to be a successful community in astronomy in Palestine.
- Creative and willing to learn new skills.

Computer skills

- Programming languages: Python (daily use), Bash, C/C++ (Master's thesis), Java, SQL, Visual Basic.
- Proficient with Git, HPC, Google Cloud, Parallel programming.
- Competent with most Microsoft Office programmes, wordpress.

Other skills Photography and astrophotography. Enjoy adventures and seeking discomfort. I enjoy traveling and experiencing different cultures.

REFERENCES

- Dr. Thorsten Auth, Scientific Staff “Institute for Advanced Simulation” at Forschungszentrum, Jülich, Germany. Email: t.auth@fz-juelich.de. PhD daily supervisor.
- Dr. Caterina De Bacco, Cyber Valley research group leader, Max-Planck Institute for Intelligent Systems, Tübingen, Germany, Email: caterina.debacco@tuebingen.mpg.de. Research Internship supervisor.
- Dr. Wafaa Khater, Physics department, dean of science at Birzeit University, Palestine. Email: wkhater@birzeit.edu. Birzeit University supervisor.