

Eslam M. H. Soltan

Assistant Lecturer

 9 Fragile El-mushy St., Asyut, Egypt. |  Eslam.Mohamed@bua.edu.eg |
 eslamsoltan2501@gmail.com |  [EgyPlasma](#) |  [Google Scholar](#) |
 [LinkedIn](#) |  +20 1064903396

EDUCATION

Port-Said University

Port Said, Egypt

Master of Science, Physics

Apr. 2024

- **Area of Specialization:** Theoretical Plasma Physics.
- **Thesis Title:** Modeling of nonlinear ion acoustic waves in the Martian upper ionosphere.
- **Supervisor:** [Prof. Waleed Moslem](#)
- **Cumulative GPA:** 3.77/4

Assiut University

Assiut, Egypt

Bachelor of Science, Physics

Jun. 2019

- **CGPA:** 3.01/4.00.

RESEARCH EXPERIENCE

Portsaid University

Master Research

2021 – Present

My research pursuits are focused on the domain of theoretical space plasma physics. Specifically, I aim to develop theoretical models that can effectively elucidate the propagation of diverse waves and their corresponding instabilities in the planetary ionospheres and magnetosphere within the solar system. To accomplish this, I utilize a wide range of mathematical techniques and numerical methods to both develop and compare the theoretical models with observational data.

TEACHING EXPERIENCE

Teaching Assistant

Basic Science Department, Faculty of Biotechnology, Badr University in Assuit (BUA)

Nasser City - Ard El Hadaba – Assiut

Oct. 2022- Present.

- Teaching Undergraduate Tutorials and labs:
 - Mechanics
 - Heat

1st Advanced Plasma Course at Port Said (1st APC)*Jan. 2025*

This course, organized by EGYPlasma and hosted at the Arab Academy for Science, Technology and Maritime Transport in Port Said, provides graduate students and early-career researchers with advanced training in plasma physics. The course focuses on theoretical approaches, numerical modeling, and research techniques beyond the basics, combining lectures, practical sessions, and interactive discussions in a highly engaging environment. I participated in this course as a Teaching Assistant, supporting the instructional team and assisting participants during lectures and practical sessions.

5th Plasma Basics Course at Port Said (5th PBC)*Aug. 2024***9th Spring Plasma School at Port Said (9th SPSP)***Mar. 2024***4th Plasma Basics Course at Port Said (4th PBC)***Aug. 2023***1st High Energy Physics Simulation Course***Aug. 2022*

A week-long project-oriented course preceded by a crash course in detector physics and the basics of particle interaction with matter. It started with tutorials and hands-on exercises using CERN ROOT libraries. It provided an opportunity to write (from scratch) a simulation of a particle detector building a deep insight into Monte-Carlo simulation Reconstruction.

8th Spring Plasma School at Port Said (8th SPSP)*Mar. 2022***7th Spring Plasma School at Port Said (7th SPSP)***Mar. 2021***Data Science “Causal Diagrams”***Feb.2021*

An online course offered through edX and sponsored by Harvard University, in which I gained a solid understanding of causal inference using graphical models—learning to construct, interpret, and apply causal diagrams to identify confounding variables and enhance data-driven decision-making.

6th Spring Plasma School at Port Said (6th SPSP)*Apr. 2020***Nuclear Research Center – Egyptian Atomic Energy Authority – Inshas- Egypt.***Sep. 2018*

This is a two-month training program that is centered around the development of cyclotron projects and experimental laboratories within the field of nuclear physics. The purpose of this program is to provide participants with the necessary knowledge and skills required to excel in this field.

National Research Center*Jul. 2018*

A month-long summer training on advanced physics that provides a series of lectures on Quantum Mechanics, Quantum Field Theory, General Theory of Relativity, Electrodynamics and Particle Physics.

Water Treatment plant, Asyut plant*Sep. 2018*

A two-week-long summer training on Physical methods of water treatment.

South Egypt Cancer Institute.*Aug. 2017*

The six-week-long summer training program in medical physics entails comprehensive instruction on a range of cancer treatment methodologies.

Tatweer International – Learning Technology. *Aug. 2016*

A six-week training program focused on developing essential workplace skills, including communication, teamwork, problem-solving, time management, and professional development.

Awards & Grants

Best Presentation Award. 5th plasma physics Conference during 8th SPSP *Mar. 2023*

Award the 2nd in a leadership program *Mar. 2019*

SKILLS

Numerical Computation: Mathematica – MATLAB

Programming: C++ – FORTRAN – Python.

Text processing software: LaTeX – Microsoft Office.

- **Fundamentals of digital transformation certificate (FDTC).** *Jul. 2021*

Languages: Arab (native) – English (Advanced)

- **Duolingo English Test (DET):** score 90/160 *Nov. 2025*
<https://certs.duolingo.com/tqn6c3zb3swcopir>

UNIVERSITY SERVICE

Badr University in Assuit *2022 – Present*

- Founder of Badr Literature Club. *2024*
- Preparing and organizing the ideal student competition. *2024*
- Establishment of physics laboratories. *2022*
- **Quality Assurance and Accreditation Unit Member** *2023 – Present*
 - Actively involved in the internal quality assurance system of the School of Biotechnology.
 - Contribute to the preparation and periodic review of course and program specifications and reports.
 - Support accreditation procedures and compliance with national quality standards for higher education.
 - Collaborate with academic staff to enhance teaching, learning, and assessment practices.

EgyPlasma

- **Co-organizer of Advanced plasma course at Porsaid**
- **Co-organizer of spring plasma school at Porsaid**
- **Co-organizer of plasma basic course at BUE**
- **Co-organizer of EgyPlasma talks Online event**

Center of Theoretical Physics, British University in Egypt (BUE) *2021 - Present*

- Participating in Plasma Physics Course as a teaching assistant.
- Co-organizer of the Plasma basic course
- Assisting students during the annual plasma physics course held at CTP at BUE by monitoring them in solving problems and conducting tutorials.

Portsaid University

- Assisting in planning, preparing, and organizing Spring Plasma School (SPSP) for 6 years.
- Mentoring participants in solving problems during tutorial sessions within the summer courses and spring schools.

Assiut University

2015 - 2019

- Founder member of Assiut Science Literature Club. *2016 - 2019*
- Media administrator of Assiut Science Literature Club. *2016 - 2019*
- Represented the Faculty of Science in a leadership program. *Mar. 2019*
- Volunteer English translator
 - Translate scientific documents from English to Arabic and vice versa to help fellow students
- Volunteer Physics Tutor
 - Tutor students in physics and mathematics courses

MEMBERSHIP

Egyptian Plasma Society ([EgyPlasma](#)).

Since 2021

Egyptian Syndicate of Scientific Professions.

Since 2020

REFERENCES

Prof. Waleed Moslem

- Department of Physics, Faculty of Science, Port Said University, Egypt.
- Email: wmmoslem@sci.psu.edu.eg & Tel: +20 109 2529 985
- Scholar: [W. M. Moslem](#)

Dr. Ibrahim Elkamash

- Department of Physics, Faculty of Science, Mansoura University, Egypt.
- Email: IElkamash@mans.edu.eg & Tel: +20 101 2907 407
- Scholar: [Ibrahim Elkamash](#)