

Ahmed Abdelkader Mohamed

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Education

- PortSaid University
Master of Science, Physics (Aug 2021-Present)
 - Area of Specialization: Theoretical Physics.
 - Thesis: Modeling of observed Electromagnetic waves in Mars.
 - Supervisor: Prof. Waleed Moslem.
 - Grade: Excellent (3.74/4)
- Assuit University
Bachelor of Science, Physics (Sep 2015, Aug 2019)
 - Graduation Project: Solving 1D Schrodinger Equation numerically.
 - Supervisor: Dr. Sherif Rashad.
 - Grade: Good.

Research Experience

- PortSaid University (Jul 2021, Present)
Master Research
 - Modeling Magnetohydrodynamic waves observed in Mars especially linear and large Amplitude Magnetosonic waves observed by recent space missions.
- Assuit University (Mar 2019, Jul 2019)
Undergraduate Research
 - Solving Schrodinger Equation numerically in one-Dimension using Numerov Method on FORTRAN.

Teaching Experience

- Department Of Physics, Faculty Of Science, Galala University
Physics Teaching Assistant (Oct 2021, Present)
Teaching Undergraduate Student Labs:
 - Mechanics
 - Electricity & Magnetism
 - Modern Physics
 - Optics
 - Solid State physics
 - BiophysicsThis work includes:
 - Teaching and conducting Physics labs.
 - Grading and assisting in conducting exams.
 - Grading assignments and lab reports and mentoring and evaluating students in doing research reports.
 - Setting Up the experiments and solving the operating problems.

Workshops, Schools& Internships

- **Center for Theoretical Physics at BUE summer internship** Jul,2022
Short courses on fundamental subjects such as General Relativity and Cosmology, and Quantum Field Theory and black hole physics.
- **7th Spring Plasma School (7th SPSP)** Mar,2022
Annual event that targets BSc and MSc students who are interested in or studying plasma physics and plasma applications. It's a week of lectures provides the research points in Plasma Theory, hands-on computational tutorials and problem solving in plasma physics.
- **Data Analysis Nano-degrees provided by Udacity (FWD)** Aug,2021
An internship sponsored by the Egyptian Government on Udacity online that provides the basic skills in data analysis using different software application like; Python, Jupyter, Java, and Html
- **The Workshop of Astrophysics by Ain Shams University.** Sep,2019
One day workshop introduces the fundamental structure and current research interest of mesons in the field of astrophysics.
- **The Advanced Summer workshop of physics by Zewail City.** Aug,2019
One day event under the supervision of Physics Department at Zewail city that target BSc and MSc students. It consisted of advanced lectures in Special Relativity, General Relativity and Astrophysics and Cosmology.
- **4th Spring Plasma School (4th SPSP)** Mar,2019
A week of lectures and workshops in plasma physics, its applications, and current research directions. Tutorials in Python, LaTeX, and problem solving in plasma physics.

Skills

- Programming: Python, FORTRAN, Html, C++, Matlab.
- Software: Microsoft Office, LaTeX, Mathcad2000, Mathematica.
- Languages: Arabic (native), English (Advanced), French (Basic)

Community Service

- **University**
 - **Galala University** (Jan 2022, Present)
 - Mentoring a Scientific Student club.
 - Assisting in planning and preparing for scientific summer activities like symposiums and summer schools.
 - **Portsaid University (EgyPlasma Group)** (Sep 2021, Present)
 - Assisting in planning, preparing and organizing Spring Plasma School (SPSP) for 4 years.
 - Mentoring participants in solving problems during tutorial sessions within the summer courses and spring schools
 - **Assuit University** (Nov 2015, Present)
 - Co-Founder of Society of Physics Student (SPS).
 - Head of operation of the annual High Energy Physics Simulation Course
 - Team Manager of Lifemakers at the science faculty.
 - Member at the scientific committee in the Student Union.
- **Social Service**
 - **Life Makers Egypt** (Jul 2015, Feb 2020)
 - Member of the High Board – Assuit.
 - University Project Manager.
 - Health Project Manager.
 - Team leader at Rizk Halal project.
 - Team leader at Al-Sahm project.
 - Team leader at the University project.