

Al Maha Al Habsi

Physics Lecturer

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A committed and dedicated Physics Lecturer with a Master's degree in Astrophysics (MPhys) and a passion for Education in pursuit of a Ph.D in galaxy formation. Bringing three years of experience in higher education, I am eager to contribute to cutting-edge research and academic discourse at the doctoral level.

PROFESSIONAL EXPERIENCE

Sep 2022– Current

Physics Lecturer • A'Sharqyah University • Oman

Outline: Working for A'Sharqyah University as part of their extensive Teaching Team in Basic Science department, specializing in the field of Physics.

Key Responsibilities:

- Teach a variety of established modules in Physics in variety of settings from small seminars to large lectures.
- Use different teaching techniques to effectively transfer complex knowledge, such as, using active learning method.
- Supervised students and helping them during their undergraduate studies.
- Member in Community service and operational committees in the collage.
- Supervised students' science community in their activities.
- Worked on designing a BSc Physics program for the university.
- Writing and preparing two new Physics modules.

Key Achievements:

- Conducted a study in Electromagnetism laboratories to improve students' skills and confidence in the lab using technology and active learning strategies.
- Supervised and lead a team of students who won the first place in Oman in storytelling topic in NASA Hackathon in Oman 7-8th.Oct.

Jan 2022– May 2022

Consultant • Sultan Qaboos University • Oman

Outline: Worked for Sultan Qaboos University as Consultant in Physics department for Spring 2022 semester as a part of their academic team.

Key responsibilities:

- Taught science and engineering students Physics 1 module in the tutorial sessions and Experimental Methods 1 module in the laboratories.

Key Achievements:

- Wrote variety of Context Rich Problems (CRPs) in different physics subjects.
- Conducted an active learning study with other instructors and teaching assistant to enhance students' performance in solving CRPs.
- Worked with Dr Zacharias Ioannou on the Rashid rover's lunar mission project which is in cooperation with Mohammed bin Rashid Space Centre to write and test a pipeline for image calibrations.

Sep 2021– Dec 2021

Teaching Assistant • Sultan Qaboos University • Oman

Outline: Worked as laboratories and tutorial instructor for Sultan Qaboos University in College of Science in Physics Department for Fall 2021 semester.

Key responsibilities:

- Helped Physics 1 and Physics 2 students during tutorials and laboratories sessions.

Key Achievements:

- Prepared and wrote Context Rich Problems (CRPs) for Physics 1 tutorials.

Nov 2021– Dec 2021

English tutor (part-time) • Al Rwad Private school • Oman

Taught English language in the evening to secondary school students (grades 7, 8 and 9).

Jun 2021– Sep 2021

Research trainee • Summer internship in ATLAS-CERN (online) • Lisbon, Portugal

Joined international graduated and undergraduate students in an online internship. The internship research was to study the bottom quark properties from Higgs Boson Particle. The work was mentored by Professor Patricia Conde and PhD students who are working in LIP-ATLAS and CERN. The internship focused on analyzing data from simulations released by LIP. The internship improved coding and analyzing data skills.

EDUCATION

Master in Physics Degree (MPhys), University of Liverpool, UK

Sep 2017- Jun 2021

Granted a scholarship from Oman High Education Ministry to study Astrophysics (MPhys) in the UK. Graduated with master in physics with honors with classification class two division one from, and first class in master project from University of Liverpool.

Third year project outline: analyzing data for exoplanet WASP-12b took by Astrophysics Research Institute (ARI) Telescope in Tenerife from a field Trip to Tenerife (Spain) in June 2019. The project analyzed the data showing light curve of the exoplanet transfer, and compared the result with the literature.

Master thesis outline: the thesis was supervised by Dr Andreea Font from ARI focused on how satellite galaxies help form their host galaxies via quenching using ARTEMIS simulation. The work conducted using Python language and Linux for data analysis.

Foundation in Science and Engineering, Newcastle University (INTO), UK

Jan 2017 – Aug 2017

Ruqayyah High School, Sharqyah North, Oman

Sep 2014 – Jun 2016

SKILLS

Problem-solving
Communication
Self-motivation
Teamwork
Leadership
Critical thinking
Public speaking
Programming languages :python and Linux
Microsoft Office Suit.
Data analysis and visualization.

Languages

Arabic (First language)
English (Advance)
Spanish (Elementary)

Additional

Publication:

- Publishing in 2023 paper “Noise Measurements in Residential Areas in North A' Sharqiyah Region –Oman”

Conferences:

- Attending symposium in Space industry in Oman in January 2023.
- Attending Middle East Federation of Organization of Medical Physics (MEFOMP) in Oman in May 2023.
- Attending Middle East Space Conference in Oman in January 2024.

Certificates:

- Nanodegree in programming Foundation from Udacity, in 2019.
- Participate in Google Hackathon held in Oman by Oman Royal Court, in Oman (online) in Jan 2019.
- Attending a course in Geographical Information Systems and Remote Sensing at Amman University, Jordan (online) in 2020.
- Participating in a workshop on Clinical Indication-driven CT protocols in Oman in May 2023.
- Won second place in Oman in Shell Company research competition in 2014.

Membership and community activities:

- Member of Omani Astronomical society since 2018.
- Designing and giving public lectures in different areas in Astrophysics.

REFERENCES

- Dr Andera Font
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- Dr Yahya Al Saleh
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