

AMMAR EISSA MOHAMMED ABDULLA عمار عيسى محمد عبدالله

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Date of Birth 1998/12/24 || **Nationality** Emirati || **Sex** Male || **Status** Single



EDUCATION

Master of Science (MSc) in Space Sciences and Astronomy **2021 – Present**

University of Sharjah, United Arab Emirates

Current overall grade: **3.64 GPA**

Thesis project: Site Testing for Astronomical Observatories in the United Arab Emirates

Bachelor of Science (BSc) with honors in Astrophysics **2017**

University of St Andrews, United Kingdom

Overall grade: **2nd class**

Graduation project: Identifying stellar-mass Black Holes from Astrometric Microlensing events

Secondary Education, Science Stream **2013**

Al No'man bin Basheer School, United Arab Emirates

Senior year overall grade: **98.3%**, 1st ranked Emirati on the Emirate's (city's) level and top 12 on the UAE's (country's) level

WORK EXPERIENCE

Sharjah Optical Observatory (SOO), Sharjah Academy for Astronomy, Space Sciences and Technology (SAASST), University of Sharjah, United Arab Emirates

- **Research Assistant** **2021 – Present**

Head of the Sharjah Lunar Impact Observatory

Overseeing its operations and ensuring that it fulfills its scientific mission (observation, detection and analysis of lunar impacts and currently the complete automation of the observatory) under the oral mandate of the director of the Sharjah Optical Observatory

Events Organization Administrator

Responsible for planning and coordinating public and private (employees-only) astronomical observation trips, scientific workshops (Photometry of Stellar Clusters workshop for example), observatory visits and open house events, coverage of

astronomical phenomena (the 2022 partial Solar Eclipse for example) in addition to various exhibition participations (Xposure 2023 for example)

Internships Organization Administrator

Managing student internship programs, ensuring they run smoothly, and meet the needs of both interns and the organization

Scientific Lecturer and Instructor

Delivering presentations to audiences of different educational levels and backgrounds on various astronomical topics (Stellar Formation for example)

Head of Health, Environment and Safety

Responsible for ensuring the observatory adheres to safety regulations and environmental standards via serving as a member of the Health, Environment, and Safety committee at the Sharjah Academy for Astronomy, Space Sciences, and Technology

Media Personality

Contributing to media platforms, including TV appearances and podcasts, sharing my knowledge and expertise in Astronomy and related fields

MEMBERSHIPS

- **Deputy Chairman of the Board of Directors** of the Emirates Astronomical Society **2022 - Present**

Head of the Organizing, Coordination, and Follow-up Team

Responsible for ensuring seamless execution of all events, effective communication, and collaboration among team members

Head of the Social Media and Public Outreach Team

Responsible for developing and implementing comprehensive social media and public relations strategies to enhance awareness of the society's message and improve engagement with target society members and the general public

Head of the Graphic Design Team

Supervising the development of impactful visual materials to effectively convey key messages and strengthen the society's image through different outlets

Head of the Scientific Team

Working closely with researchers and subject matter experts to develop and execute scientific initiatives aimed at advancing communication approaches for society members and the general public

- Member of the International Meteor Organization (IMO) **2022 – Present**
- Member of the International Astronomical Center (IAC) **2022 – Present**
- Member of the Emirates Astronomical Society **2021 – Present**

AWARDS

- University of Sharjah's College of Graduate Studies Scholarship (MSc) **2021**
- Ministry of Education's Excellence Scholarship for Scientifically Distinguished Students (BSc) **2017**
- Ministry of Education' Abu Dhabi's Education Council and Ministry of Presidential Affairs Best Achievers Award conferred by (1) the Ruler of Abu Dhabi; President of the United Arab Emirates; supreme commander of UAE armed forces H.H Sheikh Mohammed Bin Zayed Al Nahyan, along with (2) Minister of Foreign Affairs and International Cooperation of the UAE, H.H Sheikh Abdullah Bin Zayed Al Nahyan and (3) Former Minister of Education H.E Hussain Bin Ibrahim Al Hammadi **2016**
- H.H Sheikh Khalid Bin Tanaf Al Menhali Award and the late Obaid Al Helou Award for Innovation and Scientific Excellence **2016**

RESEARCH INTERESTS

- **The Moon:**
Observing, detecting, and analyzing meteorites striking the Moon's surface, with a focus on creating a comprehensive understanding of the hostile environment of the Moon's surface which can impact ongoing and future lunar missions.
- **Stellar Formation and Evolution**
Conducting research on the formation, evolution, and end state of stars of different initial masses, including their transitions on and off of the Hertzsprung-Russell diagram.
- **Gravitational Microlensing**
Deducing the properties of stellar-mass Black Holes in astrometric microlensing events using a self-made computational model that allows for the input of parameters for all types of astrometric microlensing events.
- **Sunspots**
Conducting research on the correlation between the prevalence of sunspots and solar activity to advance our understanding of the sun and its behavior. Occasionally observing the Sun in attempts to practically formalize the said relation.
- **Site Testing**
Conducting field evaluations to determine the quality and suitability of Wadi Al Helo observatory which is to be established as a new astronomical observatory, with a focus on creating optimal conditions for observations and research.
- **Binary, Multiple and Variable Stellar Systems**

Conducting spectrophotometric observation and performing orbital elements reproduction, mass determination, atmospheric modeling, and radial velocity measurement to advance our understanding of these complex systems.

PUBLICATIONS

- Title: **Complete Automation of the Sharjah Lunar Impact Observatory (SLIO)**
 Authors: **Ammar E. M. Abdulla**, Mohammad R. Al Jaber, Mohammed F. Talafha, Anas O. Adwan, Mashhoor A. Al-Wardat, and Hamid M. Al-Naimiy
 Status: In progress
- Title: **First Lunar Flash Detected from UAE by Sharjah Lunar Impact Observatory confirmed by far telescope**
 Authors: Mohammed F. Talafha, Mashhoor A. Al-Wardat, Hamid M. Al-Naimiy, **Ammar E. M. Abdulla**, Mohammed M. Azmi, F. Chogle and A. P. Rajwat
 Status: Published
 Link: <https://ui.adsabs.harvard.edu/abs/2022LPICo2695.6206T/abstract>
- Title: **Complete Analysis of Subgiant Stellar Systems III: HIP 24902**
 Authors: Enas M. Abu-Alrob, **Ammar E. M. Abdulla**, Zahra T. Yousef and Mashhoor Al-Wardat
 Status: Submitted
- Title: **Study of the Parallax Discrepancy between GAIA & HIPPARCOS Measurements on the stellar system: HIP 74675**
 Authors: **Ammar E. M. Abdulla** and Mashhoor Ahmed Al-Wardat
 Status: In progress
- Title: **Lunar Impact Events by Sharjah Lunar Impact Observatory (SLIO) in 2020**
 Authors: **Ammar E. M. Abdulla**, Mohammed Fadel Talafha, Mashhoor Ahmad Al-Wardat and Hamid Al-Naimiy
 Status: Submitted
- Title: **The Observation of Supernova SN 2022 hrs in The Arab Countries: Source of Cooperation and Inspiration**
 Authors: W. E. Alnaser, Mohammed F. Talafha, **Ammar E. M. Abdulla**, M.A. Aljady, A. Namdar and M. J. Alothman
 Status: Submitted
- Title: **Sharjah Lunar Impact Observatory (SLIO)**
 Authors: Mohammed Fadel Talafha, **Ammar E. M. Abdulla**, Mohammed Musharraf Azmi, Hamid Al-Naimiy, and Mashhoor Ahmad Al-Wardat
 Status: Published
 Link: <https://iopscience.iop.org/article/10.1088/1748-0221/17/04/T04008/meta>
- Title: **Sharjah Optical Observatory (SOO) I: General Description**

Authors: Mashhoor Ahmad Al-Wardat, Mohammed Fadel Talafha, **Ammar E. M. Abdulla**, and Hamid Al-Naimiy
 Status: In progress

- Title: **Sharjah Optical Observatory (SOO) II: Photometry**
 Authors: Mohammed Fadel Talafha, Mashhoor Ahmad Al-Wardat, **Ammar E. M. Abdulla**, and Hamid Al-Naimiy
 Status: In progress
- Title: **Sharjah Optical Observatory (SOO) III: Spectroscopy**
 Authors: **Ammar E. M. Abdulla**, Mashhoor Ahmad Al-Wardat, Mohammed Fadel Talafha, and Hamid Al-Naimiy
 Status: In progress





PARTICIPATIONS





- Participant in '**Poster Exhibition Day**' event at the University of Sharjah with a contribution via a poster titled "Ground-based observation of meteorites hitting the surface of the Moon" **2023**
- Presenter at the **International Conference and Exhibition for Science (ICES2023)** in Riyadh, Kingdom of Saudi Arabia via an in-person contributed talk titled "Complete Analysis of Subgiant Stellar Systems III: HIP 24902" **2023**
- Presenter at the **International Astronomical Union General Assembly (IAUGA2022)** in Busan, Republic of South Korea via an in-person contributed talk titled "Lunar Impact events by Sharjah Lunar Impact Observatory in 2020" **2022**
- Participant in **Oukaimeden International School for Astrophysics** in Marrakech, Morocco with theme titled "Spectroscopy in Astrophysics" **2022**
- Presenter at **the Multifaceted Universe: The Theory and Observation** with a contribution via an ePoster titled "Spotting Black Holes as Lens Masses in Astrometric Microlensing Events" **2022**
- Participant in '**Sharjah Innovates**' event at University of Sharjah (as part of UAE Innovates initiative) presenting Sharjah Lunar Impact Observatory project **2022**
- Innovative ambassador representing the United Arab Emirates at **the 58th London and 7th Singapore International Youth Science** **2015 & 2016 respectively**




LANGUAGES

- Arabic Native.
- English Highly proficient in reading, writing and speaking.
- Spanish B1 in reading, writing and speaking.

MEDIA

	
<p>Type: Phone Interview Source: Fujairah TV Date: 2023/09/04 Title: The role of scientific experiments in enhancing research with the Research Assistant at the Sharjah Optical Observatory, Ammar Abdulla Link: https://youtu.be/UBrRkUXE8t4?feature=shared</p>	<p>Type: Phone Interview Source: Al Ghad TV Date: 2023/09/03 Title: Ammar Abdulla: Emirati Sultan Al Neyadi performed 200 scientific experiments during his mission in space Link: https://www.youtube.com/watch?v=Ft8Gct5Nhzk&t=47s</p>
	
<p>Type: TV Appearance Source: Fujairah TV</p>	<p>Type: Phone Interview Source: Sharqiya Kalba TV</p>

<p>Date: 2023/07/25</p> <p>Title: Building a bridge between the younger generation and space and astronomy sciences in the United Arab Emirates society</p> <p>Link: https://www.youtube.com/watch?v=l1hCrQATC-Q</p>	<p>Date: 2023/03/02</p> <p>Title: Jupiter-Venus Conjunction</p> <p>Link: https://www.youtube.com/watch?v=zPZH-0LrKi8</p>
	
<p>Type: TV Appearance</p> <p>Source: AlArabiya</p> <p>Date: 2023/01/23</p> <p>Title: Astronomers warn of the disappearance of stars from the sky, the reason is light pollution!</p> <p>Link: https://www.youtube.com/watch?v=tgoO0gnPbjY</p>	<p>Type: Radio Recording</p> <p>Source: Sharjah Radio</p> <p>Date: 2023/01/18</p> <p>Title: Sharjah Innovation Week; recording of achievements by the Sharjah Optical Observatory</p>
	
<p>Type: TV Appearance</p> <p>Source: BBC News</p> <p>Date: 2022/12/11</p> <p>Title: Ammar Abdulla's Intervention in talking about the Rashid rover and the UAE Lunar Mission</p>	<p>Type: TV Appearance</p> <p>Source: Sharjah TV</p> <p>Date: 2022/10/26</p> <p>Title: Live The phenomenon of partial Solar eclipse in the United Arab Emirates</p>

	<p>Link: https://www.youtube.com/watch?v=hGp6JoG9Ljc</p>
	
<p>Type: TV Appearance Source: Sharjah TV Date: 2022/03/13 Topic: Studying Master's in Space Sciences & Astronomy Link: https://www.youtube.com/watch?v=NB9MHPFJm_o</p>	<p>Type: TV Appearance Source: Sharqiyah Kalba TV Date: 2022/02/27 Topic: Astronomical Observation trips Link: https://youtu.be/CHS5CXJQOnw</p>
	
<p>Type: TV Appearance Source: Al Dhafra TV</p>	

Date: 2022/01/24

Topic: Doomsday Clock

Link: <https://www.youtube.com/watch?v=R1IQMF2ErP4&t=180s>

SKILLS

Programming: Experience in Python, Wolfram Mathematica, Matlab, IDL, and Fortran programming languages

Data Analysis: Experience in various types of data analysis especially dealing with large chunks of data

Operational: Experience in operating telescopes, astrophotography devices, geometric optics, calorimeters, interferometers, sonometers, arduino uno microcontroller board, lasers and oscilloscopes

Software: Experience in using Mendeley and Zotero reference management softwares. Experience in working SharpCap, ATLAS9, Lunarscan 1.5 and ALFI softwares. Experience in using NASA ADS, Scopus, Sciserver, SIMBAD, Rekordbox and Garageband platforms

VOLUNTEER WORK

SAASST'st Health, Environment and Safety committee member **2023 – Present**

Deputy Chairman of the Board of Directors of the Emirates Astronomical Society **2022 – Present**

Team organizer at Kafa'at Internship Fair and at Gitex Global **2016**

OTHER INTERESTS

- Acoustic drums **2016 – Present**
- Bodybuilding **2016 – Present**