



**L-Università
ta' Malta**

**Office for Human
Resources Management
& Development**

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CALL FOR APPLICATIONS (Call ID: 25/2026)

Post/s of Part-Time or Full-Time Research Support Officer II or III or IV

QMLA – “Quantum Machine Learning for Astronomy”

Xjenza R&I Thematic Programme - Digital Technologies Programme

And any other projects undertaken by the Institute of Space Sciences and Astronomy

1. Applications are invited for a part-time or full-time Research Support Officer (RSO) to work within the Institute of Space Sciences and Astronomy of the University of Malta. The RSO may also be required to assist in several other research and development tasks related to various other research projects undertaken by the Institute.
2. Applicants must be in possession of a PhD in areas such as Artificial Intelligence, Computer Engineering, Astronomy and Physics. Applicants in possession of an MSc in these areas, and who are about to submit their PhD by the beginning of 2026, will also be considered and will be initially employed as RSO II. For the RSO IV position, applicants must have three years full-time equivalent postdoctoral research experience in a research institution.
3. Applicants would preferably have experience in one or more of the following areas: machine vision, deep learning, digital image processing, quantum algorithms and quantum machine learning. Experience in the Python programming language, popular Machine Learning frameworks such as TensorFlow and PyTorch, popular quantum computing frameworks such as Qiskit and Cirq, as well as HPC environments, will be considered an asset.
4. Applicants should have a demonstrable publication record at conferences and in journals, such as MNRAS, CVPR, ICML, International Journal of Computer Vision, npj Quantum Information, QIP and others.
5. Research topics the applicant should be familiar with include quantum algorithms, quantum encoding and classical machine vision algorithms.



6. Applicants should be self-motivated and have the ability to work both independently and as part of a team, be able to organise and prioritise tasks within the project timeline to meet interim deadlines, and possess good oral and written communication skills.

The University of Malta is an Equal Opportunity employer.

- 7. The selected candidate must be living in Malta for the period of employment.**

8. The full-time post is for a period until 30th October 2027. The candidate should preferably be available to start working with immediate effect. The post carries the following initial remuneration per annum / per hour, inclusive of any cost-of-living adjustments:

RSO II - €30,327/ €14.58;

RSO III - €36,692 / €17.64;

RSO IV - €47,092 / €22.64.

9. Candidates must upload their covering letter, curriculum vitae, and certificates (certificates should be submitted in English) and contact details of at least two referees **through this form** <https://www.um.edu.mt/hrmd/workatum-projects> by not later than **Monday, 9th March 2026**.

Late applications will not be considered.

10. Further information may be obtained from <http://www.um.edu.mt/hrmd/recruitment> and should you have any queries, please send us an email on projects.hrmd@um.edu.mt.

Office of the University,
Msida, 16th February 2026



CALL FOR APPLICATIONS (Call ID: 25/2026)
Post/s of Full-Time Research Support Officer II or III or IV

QMLA – “Quantum Machine Learning for Astronomy”
MCST Space Upstream Programme 2023

And any other projects undertaken by the Institute of Space Sciences and Astronomy

Further Information

1. This project investigates the application of Quantum Machine Learning (QML) algorithms, with emphasis on astronomical data analysis. Current analysis methods often struggle to extract faint astronomical signals obscured by noise within large, high-dimensional datasets, hindering progress in our understanding of the cosmos. By developing resource-efficient QML models tailored for astronomical data, we aim to achieve significant advancements in three key areas. Firstly, we aim to enhance signal detection capabilities, potentially leading to the identification of previously undetectable objects or faint signals from distant galaxies. Secondly, these QML models will be trained to improve feature recognition within the data, providing deeper insights into the characteristics and behaviours of astronomical objects. Finally, the inherent efficiency of QML algorithms has the potential to significantly accelerate data processing compared to traditional methods. This will allow astronomers to dedicate more time to scientific interpretation and formulating new research questions. To evaluate the project's success, we will employ a multi-pronged approach. We will assess the effectiveness of the QML models through a combination of well-established Machine Learning (ML) metrics like accuracy, precision, and recall. Additionally, astronomical considerations like the Signal-to-Noise Ratio (SNR) will be factored in to ensure the models effectively extract faint signals relevant to astronomers. The algorithms investigated in this project will be applicable to several other scientific and technological fields.
2. The Research Support Officer will be responsible for the execution of a number of tasks related to **QMLA** and a number of other research projects presently being undertaken at the Institute of Space Sciences and Astronomy. Further information may be obtained from Professor Alessio Magro (alessio.magro@um.edu.mt).



3. The main duties and responsibilities of the appointee will consist of the following:
 - a. produce software deliverables, write technical documentation, and prepare related reports within the stipulated time frames as specified in the project description;
 - b. work with other research officers to jointly develop a pre-agreed work plan that apportions the project into a schedule of sub-tasks, which, taken together, meet all the project objectives on time;
 - c. work flexible hours, so long as the pre-agreed sub-tasks are delivered on time and to acceptable standards, while keeping records of the actual time taken, on a task-by-task basis.
 - d. keep detailed progress reports and abide to all the conditions imposed by the project;
 - e. assist in the dissemination process with the relevant stakeholders via workshops/seminars and work with other research officers to jointly prepare publications and/or patents;
 - f. work with the University's Knowledge Transfer Office to protect any valuable intellectual property.
 - g. organise and attend regular project internal meetings and consortium meetings;
 - h. travel and attend meetings/conferences as the need arises; and
 - i. perform any other project-related task as instructed by the project coordinator and key experts.

3. The appointee will be expected to work at such places and during such hours as may be determined by the University authorities.

4. The selection procedure will involve:
 - a. scrutiny of qualifications and experience claimed and supported by testimonials and/or certificates (copies to be included with the application);
 - b. shortlisting; and
 - c. an interview and/or extended interview.

5. The post is for a period up to until 30th October 2027, which will be subject to a probationary period and to the provisions of the Statutes, Regulations and Bye-Laws of the University of Malta which are now or which may hereafter be in force.

Office of the University
Msida, 16th February 2026

