CALL FOR

DOCTOR WITH ADVANCED RESEARCH AND DEVELOPMENT EXPERIENCE QLAB / Group 4

The Director of the MAB QLAB Centre, with the consent of the Rector of the University of Warsaw, announces a competition for the position of **Doctor with Advanced Research and Development Experience** (research employment group) in Group 4 Quantum Computing and Artificial Intelligence of the MAB QLAB Centre, financed under International Research Agendas (MAB), Measure 2.1 of the European Funds for a Modern Economy 2021-2027 Programme (FENG), project FENG.02.01-IP.05-B013/25, Center for Hybrid Quantum-Classical Information Technologies – QLAB. The selected candidate will be offered an employment contract at the University of Warsaw for a research - technical position outside the group of academic teachers.

About the programme/project:

Title of programme/project	Center for Hybrid Quantum-Classical Information Technologies – QLAB
Type of programme/project	International Research Agendas (MAB), Measure 2.1 of the European Funds for a Modern Economy 2021-2027 Programme (FENG)
Funding institution	Foundation for Polish Science (FNP) – Intermediate Body
Duration of the project	01.01.2026 – 31.12.2029
Head of the project / Group leader	Dr. hab. Magdalena Stobińska-Moretto, prof. UW (Principal Investigator) / Dr. Antonio Mandarino, Leader of Group 4
Description of the project	The MAB QLAB Centre has been established at the University of Warsaw as a joint undertaking with Sorbonne Université. The Centre develops scalable hybrid quantum-classical technologies in four pillars: (i) quantum-secure communication, (ii) quantum infrastructure and photonic information processing, (iii) quantum imaging and metrology, and (iv) quantum computation and artificial intelligence. Group 4 – Quantum Computing and Artificial Intelligence - develops hybrid quantum–classical algorithms and learning architectures spanning quantum simulation, quantum reservoir computing, and autonomous quantum agents for adaptive control and optimization. Its research combines quantum neural networks, physics-informed machine learning, and the theory of open quantum systems to investigate how quantum correlations and memory influence learning and computational performance, with systematic assessment of trainability, generalization, noise robustness, and computational resource scaling.

Position details:

The project “Center for Hybrid Quantum-Classical Information Technologies – QLAB”, no. FENG.02.01-IP.05-B013/25, is co-financed by the European Union under Priority 2 of the European Funds for a Modern Economy 2021–2027 Programme, within Measure 2.1 International Research Agendas. The project is implemented by the University of Warsaw, and the Foundation for Polish Science acts as the Intermediate Body for Measure 2.1 FENG.

Position title	Doctor with Advanced Research and Development Experience – (research employment group, outside of the academic teachers group).
Organisational unit	Group 4 (Quantum Computing and Artificial Intelligence). Centre MAB QLAB, University of Warsaw
Employment group	Research
Position profile	R3
Academic discipline	Natural sciences - physical sciences (with elements of computer and information sciences)
Number of positions	1
Form of employment and length of working time	Full-time contract up to 36 months in total, not exceeding the eligibility period of the project (31.12.2029, with possible extension). Part-time contract available upon individual agreement.
Expected date of commencement of work and employment period	01.01.2027 – The exact start date will be agreed upon individually with the selected candidate.
Remuneration (gross)	16 500 –17 500 PLN- In line with the budget of project FENG.02.01-IP.05-B013/25 and the salary table of MAB QLAB Centre. Detailed terms agreed at the offer stage; competitive within the FNP MAB programme.
Other working conditions	Workplace: MAB QLAB Centre, University of Warsaw, Warsaw, Poland. The position carries no teaching obligations. Start-up package available (travel, conferences, computational resources). Mobility opportunities with QLAB partners.
Basic responsibilities and obligations	1. Conducting research within Group 4 (Quantum Computing and Artificial Intelligence) of the MAB QLAB Centre under the scientific supervision of the Group leader. 2. Timely achievement of the scientific milestones defined in the MAB QLAB research agenda. 3. Define and develop new research directions at the interface of quantum computing and artificial intelligence, with particular emphasis on advanced hybrid quantum–classical architectures, quantum machine learning, neuromorphic computing, or generative quantum models. Formulate new theoretical frameworks that exploit quantum dynamics, entanglement, correlations, measurement, and feedback as computational resources for learning, inference, and adaptive control. 4. Lead the development and theoretical assessment of quantum-AI algorithms for near-term and early fault-tolerant quantum processors, establishing rigorous criteria for trainability, expressivity, generalization, robustness, scalability, and resource efficiency. Identify and characterize regimes in which quantum resources can yield genuine computational or learning advantages over classical approaches and translate these insights into new algorithmic paradigms and benchmark problems for quantum-enhanced artificial intelligence.

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	5. Preparing publications, conference presentations, and dataset/code releases according to the QLAB open-science policy. 6. Active participation in QLAB seminars and joint activities with partner institutions. 7. Mentoring of PhD students and master's students in the Group.rules. 8. Performing substantive reporting duties in accordance with FNP rules and FENG Programme requirements.
Conditions for entering the competition	1. PhD degree in physics, computer science, mathematics, or a related discipline. 2. A minimum of 5 years of experience in conducting research and development activities, including at a foreign research institution, with the 5-year period calculated from the year in which the doctoral degree was awarded. 3. A strong background in at least one of the following is required: a) quantum information, b) quantum computing, statistical physics, c) many-body physics, d) machine learning, e) numerical physics or quantum algorithms. 4. Experience in scientific programming and numerical modelling is expected. 5. Familiarity with QNNs, variational algorithms, phase transitions, tensor networks, reinforcement learning, or noisy quantum devices will be an advantage. 6. Fluency in spoken and written English (level B2 or higher). 7. During the employment period, the employee shall not be employed under another full-time employment contract from any other entity. The total professional workload must not exceed 276 hours per month
In addition, we expect	If hired, the University of Warsaw shall be the primary place of work and affiliation for the candidate.
Criteria for the assessment of candidates	1. Scientific achievements and the relevance of their expertise to the QLAB Research Agenda – 30 %. 2. Experience in research and development work- 20 %. 3. Ability to contribute to the implementation of specific research tasks – 10 %. 4. Experience in national or international research projects – 20 % 5. Ability to cooperate in an interdisciplinary research environment – 10 %. 6. Potential contribution to technology transfer, commercialisation or cooperation with industry, where applicable – 10 %. Recruitment criteria approved by the Director of MAB QLAB.

Competition rules:

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Announcement reference number	QLAB/2026/G4/EXP/POSTDOC/02
Keywords	PhD, quantum information, quantum simulation, quantum computing, machine learning, scientific programming
Deadline for submitting applications	18.11.2026
Method of submitting an application	Send an email titled "QLAB EXP/POSTDOC G4- <surname>" to qlab@uw.edu.pl, attaching all required documents in PDF. Confirmation of receipt will be sent within 3 working days.
Required documents	• Signed information clause on personal data processing (template attached). • Signed candidate's declaration (template attached). • Copy of doctoral diploma or document confirming the date the doctoral degree was awarded. • Curriculum Vitae listing all research output (with up to three works highlighted), academic CV, mobility, awards, projects, three referees with affiliations and email addresses. • Cover letter (max. 2 pages A4) describing motivation, research vision and how it fits Group 4 of QLAB. • Copy of up to three most representative publications. • Statement that the candidate satisfies the doctor with advanced research and development experience condition (please include this statement in the cover letter).
Stages of the competition	• Stage I - formal evaluation of documents. • Stage II - substantive evaluation of submitted documents by the Recruitment Committee. • Stage III - interview with the shortlisted candidates (online or on-site). • Stage IV - final scoring of candidates against the published criteria. • Stage V - adjudication of the competition and publication of the result.
Anticipated date and method of notification	Up to 30 days after the application deadline. Candidates are informed individually by email. The result is also published on the UW BIP, on the QLAB website, on the EURAXESS portal and on the website of the Ministry of Science and Higher Education.
Contact for any questions relating to the competition	qlab@uw.edu.pl - always quote the reference number QLAB/2026/G4/EXP/POSTDOC/02. Accessibility needs should be indicated in the candidate's cover letter under "Other relevant information".

The competition is the first stage of the recruitment process. Please read the Policy of Open, Transparent and Merit-Based Recruitment at the University of Warsaw: https://rekrutacja-i-rozwoj.bsp.uw.edu.pl/polityka-rekrutacji/

Employing unit:

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Research profile of the unit	MAB QLAB - https://qlab.uw.edu.pl Group 4: Quantum Computing and Artificial Intelligence
Teaching profile of the unit	n/a (research-only Centre)
Other information	The Recruitment Committee acts under the supervision of the Director of MAB QLAB. The competition is conducted in accordance with the FNP MAB funding agreement, the Statute and Regulations of the University of Warsaw, the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers (HR Excellence in Research).

HR EXCELLENCE IN RESEARCH

The University of Warsaw has implemented the procedure for whistleblowers reporting cases of law violation and for undertaking follow-up actions. For more information about this topic and the processing of candidates' personal data please follow: https://rekrutacja-i-rozwoj.bsp.uw.edu.pl/przydatne-dokumenty/

The University of Warsaw is a winner of the HR Excellence in Research award granted by the European Commission to institutions adhering to the European Charter for Researchers.

This recruitment is conducted within project FENG.02.01-IP.05-B013/25, "Center for Hybrid Quantum-Classical Information Technologies – QLAB", co-financed by the European Union under the European Funds for a Modern Economy 2021-2027 Programme (FENG), Measure 2.1 - International Research Agendas, implemented by the Foundation for Polish Science.

…….
given and family name

Information on personal data processing

Controller

Controller of your personal data processed in connection with the recruitment process is the University of Warsaw, ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa, as the Employer.

Contact with the controller:

- by traditional mail at: University of Warsaw, ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa (name the organizational unit to which your letter is addressed);
- by phone: 22 55 20 355.

Data Protection Officer (DPO)

Controller has designated Data Protection Officer whom you may contact via email at iod@adm.uw.edu.pl. You may contact the DPO in all matters relating to your personal data processing by the University of Warsaw and the exercise of rights in relation to the processing of personal data.

The DPO, however, does not proceed other matters, like handling recruitment procedures, collecting recruitment documents, providing information on current recruitment process.

Purpose and legal grounds of data processing

Personal data of candidates for employment shall be processed for recruitment purposes only.

Your personal data shall be processed in the scope as indicated by employment law[1] *(given name (names) and family name, date of birth, contact information as provided, education, professional qualifications, previous employment)* for the purposes of this recruitment process[2], whereas other data[3] shall be processed based on your consent which may take the following wording:

I agree to the processing of personal data provided in .... (e.g. CV, cover letter, and other submitted documents) by the University of Warsaw for realising my recruitment process.

[1] Art. 22[1] of the law of June 26, 1974 Labour Code (i.e. Journal of Laws 2019 item 1040 with subsequent changes);
[2] Art. 6 section 1 letter b of the Regulation of the European Parliament and the Council (EU) 2016/679 of April 27, 2016 on protection of individual persons with regard to the personal data processing and on the free flow of such data, and also repealing Directive 95/46/EC (general regulation on data protection) (Official Journal EU L 119 of 04.05.2016, page 1, with subsequent changes) (hereinafter as the GDPR);
[3] Art. 6 section 1 letter a of the GDPR;

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If your documents include data as mentioned in Art. 9 section 1 of the GDPR (special categories of personal data), processing shall be possible upon your consent to processing such data[4] which may take the following wording:

I agree to the processing of special categories of personal data, as mentioned in Art. 9 section 1 of the GDPR, provided in ..... (e.g. CV, cover letter, and other submitted documents) by the University of Warsaw for realising my recruitment process.

The University of Warsaw shall be also processing your personal data in future recruitment processes upon your consent[5] which may take the following wording:

I consent to processing of my personal data for the purposes of any future recruitment processes at the University of Warsaw for the period of the next nine months.

You may revoke all such consents at any time by, for example, sending an email at ..... (email address due for the recruitment process).

Be advised that the revocation of your consent does not affect legal compliance of processing which had been completed upon consent before its revocation.[6]

Data retention period

Your personal data collected in this recruitment process shall be stored over the period of three months from the date the recruitment process is completed.

In case you agree to process your data in future recruitments, your data shall be used over the period of nine months.

Data recipients

Officers authorized by the Controller shall have access to your personal data, the processing of which is in the scope of their duties.

Recipients of personal data may be other subjects obligated by the Controller to provide specific services involving data processing, like

.....
(name all recipients of data)

Data transfer outside the European Economic Area (EEA)

Your personal data shall be disclosed to subjects authorized by law. Signing-in is through Google Forms. Your personal data may be also processed by our provider of G-Suit for education by Google

[4] Art. 9 section 2 letter a GDPR;
[5] Art. 6 section 1 letter a GDPR;
[6] Art. 7 section 3 GDPR;

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Company in their data processing centres.[7] Your data shall be protected under the standards of the Privacy Shield, accepted by the European Commission.[8] This shall guarantee an adequate level of data security.

Rights of the data subject

Under the GDPR data subjects have the following rights:

- to access data and to receive copies of the actual data;
- to correct (rectify) your personal data;
- to restrict processing of personal data;
- to erase personal data, subject to provisions of Art. 17 section 3 of the GDPR;
- to file a claim with the President of the Personal Data Protection Office, if you believe data processing violates law.

Information on the requirement to provide data

Providing your personal data in the scope resulting from law is necessary to participate in the recruitment process. Providing other personal data is voluntary.

.....	.....
place and date	applicant's signature

[7] https://www.google.com/about/datacenters/inside/locations/index.html

[8] https://www.privacyshield.gov

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Declaration of the candidate

Required declaration

In connection with art. 113 of the Act of the Law on Higher Education and Science of July 20, 2018 (Journal of Laws of 2024, item 1571 as amended), I declare that:

1) I have full legal capacity,
2) I enjoy full public rights,
3) I have not been expelled from work at the university with a ban on working at universities for a period of 6 months to 5 years,
4) I have not been deprived of the right to practice as an academic teacher for a period of 10 years,

I have not been convicted by a final judgment for an intentional crime or an intentional fiscal crime.

…….
place and date

……
applicant's signature

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