Annual report 2025

QResearch Department

Coordinator of the department: Aritra Sarkar, Oskar Słowik
Vice-coordinator of the department: Muhammad Waqar Amin, Nouhaila Innan
Past coordinators of the department: Adam Glos, Zoltan Zimboras
Active volunteers of the department: Yasir Ölmez, Shantanu Misra, Anand Nagesh, Denisa Vítková

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Activities for 2025

QIntern 2025

Date: July 01 - August 17 (main event)
Coordinators: Aritra Sarkar, Oskar Słowik
Scope: global external
Short description: A remote internship program
Outcomes: 16 projects were selected (out of 25 proposed projects). The details of each project are available at GitHub - QWorld19/QIntern2025: Project List · GitHu. 12 projects presented their results in the mini-conference. Projects included theoretical exploration, quantum algorithm development, and community profiling. The project included 15 (co-)mentors and 94 interns (selected out of 600 applications).
Comments for future editions: Many processes of QIntern administration have been streamlined from past QIntern and can be directly handled by the coordinators (e.g., project voting bot, emails, certificate generation). The QIntern Team should focus more on handling FAQs from interns, keeping the community engaged, and for feedback. A few invited virtual talks during or before the event would be good. We aim to slightly increase the number of accepted projects to a max. of 25.

Relevant linked:

- Event website:

https://qworld.net/qintern-2025/

- Application for mentors/co-mentors:

https://docs.google.com/forms/d/1KG9BT1z1Z1uVxmDdndmXI3RyAiMB_PvmpwVFWkUAPqM/edit

- Application form for interns:

https://docs.google.com/forms/d/1i-aK0xxVKGyiWsankvAOV_K7CQ6qogC6HziouMVQSjc/edit

- Application form for team:

No forms for the same was created.

- Discord

Server ID: 1219211500896653342

Future plans

Events

QIntern 2026

Dates: Summer 2026
Coordinators: Kumar Prateek, Aritra Sarkar, Oskar Słowik
Scope: global external
Short description of plans: same as for QIntern 2025 + what was pointed out in the summary of QIntern 2025
Help required from other departments: PR team for graphics, ideas, and mentorships from all departments

Strategy to enhance the impact and reach of QIntern2026:

1. Engaging Quantum Computing Industry Leaders:
    a. Proactively reach out to major companies and organizations in quantum computing to collaborate as sponsors.
    b. Discuss their pressing challenges and areas of interest, and request detailed problem statements they want to be addressed.

2. Call for Proposals from Mentors:
    a. Issue a call for proposals from potential mentors based on the challenges provided by the sponsors.
    b. Match interns with mentors to collaboratively address those challenges through structured projects.

3. Incentives for Sponsors:
    a. In return for their collaboration, offer sponsors:

   i. Recognition and visibility in the QWorld network.
   ii. Solutions to their challenges are developed by talented interns and mentors.
   iii. Opportunities to collaborate on publishing results in journals.
4. Benefits for Participants:
   a. Request sponsors to provide paid internships to the winning interns to refine further and implement their solutions.
   b. Offer winners the opportunity to co-author research papers, enhancing their academic and professional profiles.

Such an approach ensures meaningful engagement between industry, mentors, and interns while addressing real-world challenges and providing tangible outcomes for all stakeholders.

QuantumScienceDays 2026

Plan: Co-organize it with other QWorld Departments and eventually take care of this event for QWorld
Others
Quantum Collaborator Search
Coordinators: Aritra Sarkar
Scope: global external
Plan: As an intellectual successor of the Research Projects and Study Groups programs, develop a way to matchmake between global researchers for collaborations and internships. It is not particularly a 'job board' like Quantiki, but more for finding researcher collaborators with similar interns to kickstart new projects. The focus will be on researchers of similar levels, e.g., study groups among students, or grant proposal teams between PIs. But can be extended to mentorships as well. Maintaining this will require a team engaged with this activity throughout the year (though not with a high workload once things are set up).

General

- We should invite more members to QResearch department - based on the previous year's QIntern Team and good candidates
- We should look for one senior researcher for joining the coordination team - preferably from the active members of QCousins