

Research Scientist Qubit SPAM

Location: Munich / hybrid

Department: R&D

Employment: Full-time

Role / field: Physics

Who we are

At neQxt, we build full-stack ion-trap quantum computers, striving for excellent performance and scalability. With decades of expertise in ion-trap technology, neQxt was spun out of Mainz University, and it is headquartered in Germany's Frankfurt Metropolitan area. Our team of leading talent from Europe and beyond covers the entire value chain, from the basic hardware to end-user software level. Join our passionate team of ambitious scientists, engineers, technicians and quantum enthusiasts, building top-tier fault-tolerant quantum computers together!

Job description

You will focus on defining and developing cooling and state-preparation methods that are feasible and efficient for trapped-ion quantum computers. The job combines theoretical concept development and simulation with close support for implementation in the experimental setup. It is particularly suited to an AMO physicist with a strong theory background and practical understanding of atomic-system experiments. You will collaborate with product owners, the engineering and experiment teams, and external partners.

Responsibilities

- Define and develop cooling and state-preparation methods for trapped-ion quantum computers
- Develop concepts and models for laser cooling methods, including optical pumping
- Simulate atomic systems analytically and numerically to assess feasibility and efficiency
- Translate experimental constraints into actionable requirements and acceptance criteria
- Support implementation and validation in the experimental setup together with domain experts

Requirements

- Master's degree in physics, AMO physics, quantum optics, or a closely related field
- Strong theoretical background in light-matter interaction in atomic systems, including quantum-optical and semi-classical descriptions
- Knowledge of laser cooling methods, including optical pumping, concept development, modelling, and simulation
- Experience working with experiments, especially ions or ultracold atoms, and a solid understanding of experimental constraints
- Ability to simulate atomic systems analytically and numerically
- Proficiency in written and spoken English

Nice to have

- PhD or equivalent research experience in AMO physics, trapped ions, ultracold atoms, or quantum optics
- Experience transferring theoretical concepts into experimental implementation
- Experience with trapped-ion quantum-computing architectures

Who you are

- High motivation and agility, and a sense of responsibility
- Leadership skills: form, build, and grow the team
- Stakeholder management: Find compromises in conflicts and persuade effectively.
- Strong team player with a collaborative, ownership-oriented mindset
- Continuous willingness to learn and teach
- Ability to explain difficult concepts in a simple way to different stakeholders
- Solution-oriented approach and ability to converge on actionable decision
- You can manage complex and demanding technical challenges independently

What we offer

We focus on true technological advancement rather than unrealistic roadmaps. With a pragmatic, no-nonsense approach, we move fast and avoid bureaucracy. We value your individuality and offer a flexible environment tailored to your lifestyle.

- Results-oriented environment with flat hierarchies and a passionate team
- Competitive salary with automatic inflation adjustment
- Flexible working hours, hybrid/remote work and full overtime compensation
- Career development in an emerging tech field
- German language courses, if needed
- Company pension scheme
- Choice of a flexible mobility budget or company car
- Default (mandatory) German employment benefits (e.g. health / pension / unemployment insurance, paid sick leave, maternity protection, parental leave, ...)

How to apply

To apply, please submit your CV, a cover letter including your preferred starting date, and any relevant publications, project details or other supporting documents via e-mail to: career@neqxt.org. Applications will be reviewed on a rolling basis until positions are filled.