

## Call for Application

### Qualification scholarship for (prospective) master's students within the Cluster of Excellence „CUI: Advanced Imaging of Matter”

The Cluster of Excellence will offer scholarships to students who are in the master's programme or will join the programme in the next semester and give them the opportunity to get to know and get involved in the cluster's outstanding research. We particularly encourage international students to apply. The Cluster explores the dynamics of complex systems, bridging concepts and methodologies for the study of 'small' well controlled quantum systems to ever greater length scales and complexity, from large molecules to solid state systems and nano systems. It investigates how new functionalities emerge with the increasing complexity and size of a system and how new functionalities can be generated dynamically. International researchers from different disciplines such as physics, chemistry, and structural biology have joined forces to observe, understand, and control these processes in Hamburg.

#### **Scholarship conditions**

The scholarships start at the earliest on 1 October 2024 and are funded with €934 per month for a duration of 12 months. If there is a need for further funding after the 12-months' scholarship, the Cluster can be contacted to explore further funding options. The projects will be undertaken at the Departments of Physics or Chemistry of Universität Hamburg or, if applicable, at Deutsches Elektronen-Synchrotron (DESY), Max-Planck-Institut für Struktur und Dynamik der Materie (MPSD) or European XFEL.

#### **Master's degree & research areas**

The scholarships support the academic qualification in the framework of relevant master's programmes of Universität Hamburg, i.e. physics, nanoscience and chemistry.

Scholarship holders are required to complete the relevant master study curricula, but also have the opportunity to engage in optional research projects as part of the Cluster of Excellence “CUI: Advanced Imaging of Matter”. The Cluster offers students an exciting insight into research groups, the research programme and the infrastructure at the Bahrenfeld campus. Scientific topics for projects include photon science, quantum physics, theoretical physics, nanostructure and solid-state physics, physical chemistry, biochemistry, femtosecond and attosecond laser spectroscopy, X-ray physics at Free-Electron Lasers, coherent X-ray imaging, ultrafast science, atomic, molecular and optical physics, quantum gases, nanochemistry as well as machine learning. See also <https://www.cui-advanced.uni-hamburg.de/en.html>

With this scholarship, we are aiming to attract exceptional national and international students to the Cluster of Excellence and help them build an optimal foundation for their further scientific and professional development. Successful applicants can expect to benefit from excellent research conditions, explore a broad range of subjects and become part of an inspiring community (detailed programme [click here](#)). The start of the scholarship will be on the first day of the winter semester, a later start can be granted upon request.

### **Expectations**

- (Planned) Enrollment for a master’s degree at Universität Hamburg in physics, nanoscience or chemistry. If you are not enrolled yet, you can still apply and the scholarship can be granted given your successful enrollment in the next semester.
- Enthusiasm for the research topics of the Cluster of Excellence and good grades in a Bachelor's degree programme in physics, chemistry, biochemistry or a related subject are prerequisites.

In addition to your grades, we also take other criteria into account. At CUI, we value all members equally and respect and cherish individual differences. A short questionnaire (please [click here](#) and fill in) gives you the opportunity to share aspects about your CV/life with us that go beyond your career path. You are encouraged to share; however, it is not mandatory.

Because of the diverse backgrounds that come together, diversity is much more than just a social reality: We see it as an opportunity for innovative, internationally influential and excellent research. Furthermore, the University aims to increase the number of women in research and therefore explicitly encourages women to apply. Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

**Applications are expected to include:**

- a cover letter specifying your motivation for applying for a scholarship within the Cluster of Excellence „CUI: Advanced Imaging of Matter“ and how the scholarship will help you to achieve your goals. Please state explicitly which master's programme you are planning to enroll in and what topics you would like to explore scientifically within the Cluster of Excellence / in which work group
- a tabular curriculum vitae
- copies of school and university degree certificates and transcripts of records
- if applicable: a single-page summary of your Bachelor's thesis (if your Bachelor's programme required a thesis) and a PDF of your thesis. If you have not written your Bachelor's thesis yet, please send us a plan for your thesis. Please write the thesis summary or plan in a way that a scientist who is not in your field understands. Also, please detail what your exact contribution to the thesis was.
- name and contact details of one person that would be willing to provide references (no references needed at this point) and that we are allowed to contact

Please send your application electronically in a single PDF file to [cui.office@uni-hamburg.de](mailto:cui.office@uni-hamburg.de) by **15.07.2024**. If the application deadline cannot be maintained due to the different international term schedules, it is also possible to submit your application after the deadline (we can consider the application as long as the procedures are not finalized, it might also be necessary to start the scholarship at a later date than 1 October).