



EXCELLENCE FELLOWSHIP PROGRAM FOR VISITING MASTER STUDENTS.

Dipolar Quantum Gas Group– University of Innsbruck, Austria.

It is now an exciting time to work in the field of dipolar quantum gases, thrived by the recent discovery of novel phases of matter and unexpected quantum phenomena. Working in this field, our group is currently expanding, and we are searching for talented young physicist to complete our team. It is in this spirit and in the hope of getting the best of you that we are announcing a novel **Excellence Fellowship Program for external master students for the year 2022.**

Within this Fellowship program, we are proposing **four distinct internship project topics**, which could fit all tastes, tending either more to theory or to experiment:

(A) Unveiling the properties of the newly discovered dipolar supersolid phase with quantum gases of magnetic atoms. Theory and Experiments.

(C) Exploiting the rich electronic structure of lanthanide atoms: manipulation based on narrow line transitions. Conceptual development and experimental toolbox.

(D) New Frontiers of Rydberg excitations with multi-electron erbium atoms.

Working on these projects will provide to the granted master student a unique opportunity to perform exciting experiments at the frontier of quantum physics in an exceptional international environment, as well as to collaborate with a large network of researchers worldwide, and to develop valuable high-tech skills in electronics, photonics, programming, and data analysis, among others. Join us if you want to contribute in pushing the frontiers of our understanding of quantum physics and take decisive steps!

To learn more about our research, visit www.erbium.at

WHAT ARE THE BENEFITS?

Students that will be granted a fellowship and join our team for their Master internship will be provided with a **full support for their accommodation cost** to cover the cost of a room in a student house or in a shared flat in Innsbruck city, as well as an **administrative support for all organisational matters relative to the internship and stay**. The benefits will be provided for the duration of the internship and not longer than 10 months.

WHAT ARE THE REQUIREMENTS?

Eligible candidates are physics students that have completed a **bachelor degree in Physics and are currently enrolled in a Master programme in a different university than the Innsbruck University**. The student should have knowledge on quantum physics. Background in experimental atomic, molecular and optical physics is not strictly required but certainly preferred. Most important qualities that we are searching for are motivation, curiosity, and passion for the physics and its techniques.

WHAT IS THE TIME SCHEDULE?

Applications can be send from today **until the 16th of May 2022**.

Applications are evaluated **upon reception and until filling of the available positions**.

Within the two weeks following the application, the candidate will be informed via email whether or not he has been selected for the next evaluation step.

Selected candidate will then be interviewed by at least one senior member of our group, either remotely (videoconference call) or in person (during a visit in Innsbruck).

Following this interview, the applicant will be informed if is awarded or not a fellowship.

Awarded candidates should confirm within two weeks via email if they comes or withdraw their application.

Start date for the internship is flexible but should happen **before November 2022**.

HOW TO APPLY?

Simply send an email to francesca-ferlaino-group@uibk.ac.at as soon as possible including your motivation as well as your CV, transcript of exams, and names of reference persons (minimum one).

