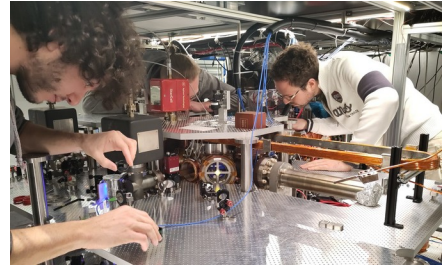


PhD and Postdoc Position in our ErLi Team at the University of Tübingen

Join us in our effort to develop a new quantum gas mixture experiment with erbium and lithium! We aim to create a unique platform to explore strongly correlated many-body physics in optical lattices. We offer one PhD and one Postdoc position to fill as soon as possible. You should have some prior experience in experimental cold atom physics or related fields. Also, you should bring enthusiasm for physics, endurance in solving challenging problems, dedication to lab-work, and team spirit.



Our current research topics

- **Challenging the 20 year old temperature record in ultracold fermions** by optimized sympathetic cooling in optical lattices.
- **Polarons** in systems with **extreme mass imbalance**.
- **Far-from-equilibrium quantum dynamics:** Thermalization studies in dynamically constrained lattice systems.
- **Your idea here!**

Current state of our experiment

- Innovative laser cooling systems for both species up and running; trapping laser systems in preparation.
- Excellent vacuum conditions with more than 40 water-cooled coils integrated in the chamber mounting.
- State-of-the-art control, monitoring and security systems will enable autonomous 24/7 measurements.
- Demonstrated magneto-optical traps for both species in December 2022.
- Brand new labs with top infrastructure and equipment: Better than 0.1 K temperature stability for cooling water and air.

Tübingen, where is that?

Tübingen is a German university town with a long tradition. Our university is one of the excellence universities in the country. It is located in the economically strong southern Germany just 50km south of Stuttgart. The town is small, but very international and young. It is embedded in a beautiful hilly landscape ideal for all kinds of outdoor sports.

Our research group

Our group is embedded in a diverse local, national and international research environment in quantum physics, with multiple collaborating groups in experimental and theoretical physics as well as mathematics. We care for a fully open and inclusive research atmosphere without hierarchy. Together we are developing new technologies and push the development of a group-wide common knowledge base. We believe that team spirit, open team-wide communication and simply fun working in the lab are the basis for successful research in our group.

The team at the ErLi experiment

Christian Groß (PI)

Florian Kiesel (PhD)

Jonas Auch (Master student)

Alexandre de Martino (PhD)

Max Hassunah (Master student)

To see our faces and to get some impressions from the labs visit us at <https://www.qmanybody.de>. For more information and / or to apply for a PhD with us simply contact Christian via email: christian.gross@uni-tuebingen.de