

Master/PhD positions available!

Lattice Atom Interferometry

Atom interferometers have enabled us to measure forces with exceptionally high precision. Inevitably, these forces are averaged over the free-fall trajectory of the atoms (up to 10 m), since sensitivity scales with the free-fall time. This precludes measurements of localized forces. To shrink these distances we will use the optical lattice of a high finesse cavity to hold the atoms against gravity in order to perform lattice atom interferometry with ultra-long interaction times.

Lattice Atom Interferometry will bring the sensitivity and spatial resolution of atom interferometry to a new level, allowing for exploration of exotic forces beyond the standard model, enhancing our understanding of quantum fluctuation-driven interactions, and enabling investigation of optically induced interactions between atoms as a means to further improve the sensitivity of matter-wave interferometry.

Be part of it!

We are looking for a Master/PhD student to join our Quantum Optics Group at TU Wien.

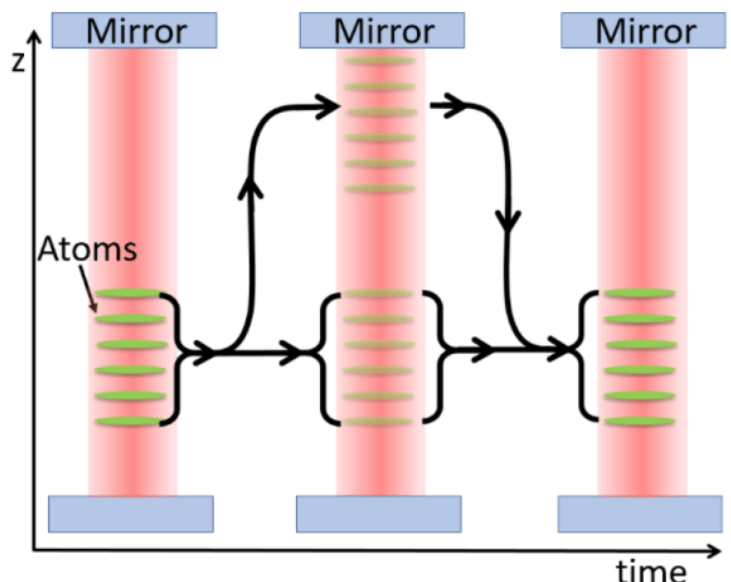
You should hold a Bachelor degree in physics (or equivalent) and ideally have experience related to quantum optics. You will work in an international team of 2-3 people on a cutting-edge experimental setup.

Our group is part of the Vienna Center for Quantum Science and Technology (VCQ).

If you are interested **please feel free to contact us.**

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Applicants should provide the following documents:

- CV
- An original piece of your scientific writing (such as a manuscript or thesis).



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