

PhD positions available!

We are looking for motivated students to work on the project:

Quantum Optics with Electron-Photon Pairs

The advances in quantum optics initiated the second quantum revolution, which promises secure communication, unprecedented computational power and measurement precision. At the same time, electron microscopy allows measurements with sub-atomic resolutions at a time scale of femtoseconds. For that reason, electron microscopy has become an essential tool for material science, biology, as well as, for fundamental studies. In this project we want to utilize Cherenkov radiation – which is generated by uniformly moving charged particles (electrons) with velocities exceeding the speed of light in a nearby dielectric medium – to create correlated electron-photon pairs, within a transmission electron microscope. **Within the next years we plan to build up experiments at the intersection of photonic quantum optics and electron microscopy.**

We are looking for highly motivated and experimentally talented PhD students to join our group at TU Wien.

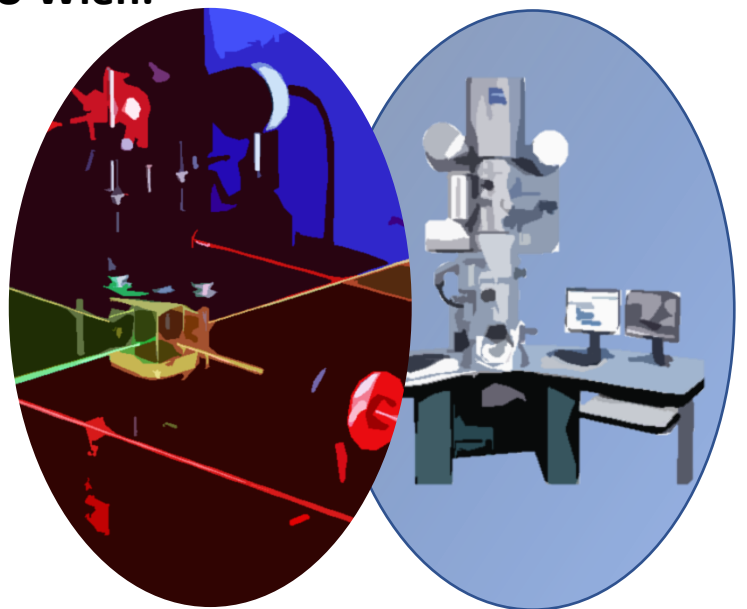
You should hold a Master's degree in physics (or equivalent) and ideally have experience related to quantum optics or electron microscopy. You will work in an international team of 2-3 people on a cutting-edge experimental setup.

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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