QOQI needs you for Astronomy!

Dive into the field of correlation functions and intensity interferometry by measuring the bunching of photons from stars

- Join us at a measuring time at the telescope C2PU in the south of France close to Nice
- Learn to design, create, assemble and test an optical setup that can be used to perform Hanbury Brown Twiss (HBT) experiments
- Get in touch with our top-notch single photon counting detectors and hardware

You already gathered some basic knowledge of optics during your studies and know a programming language (e.g. Python) that you would like to improve?
You are interested in creating your own CAD drawings and always wanted to know what it is like to work in an optics lab?
Then QOQI needs you for our Astronomy project. If you are interested in a master thesis, feel free to contact us!

QOQI Group by Joachim von Zanthier

Apply now for a master thesis

The project:

In the last 20 years the Hanbury Brown and Twiss (HBT) method of correlating photon fluxes via intensity interferometry had its comeback. In the late 1950s, HBT introduced this new tool to measure the diameter of Sirius A with unprecedented resolution. For HBT measurements in astronomy, it is crucial to detect photon arrival times very precisely at multiple detectors. Usually a TDC (Time-to-Digital-Converter) is used for recording this time stream detected at Hybrid Photon Detectors (HPDs).

A second setup needs to be designed, assembled and tested in the lab to measure spatial correlation at C2PU. It is crucial to test the behaviour of the setups with an artificial star in the lab. Help us to develop and build this spatial correlation test setup. Join us for a measurement campaign at C2PU in Calern close to the Côte d'Azur.

Munich Quantum Valley

FAU Friedrich-Alexander-Universität Faculty of Sciences