

Quantum Technology Competence Center (QTZ) at PTB

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Abstract:

Quantum technologies will have a substantial impact on German economy. PTB as the National Metrology Institute of Germany has a long tradition in quantum technology and performs world-leading research in several fields, with a focus on quantum sensing and metrology. Examples include, but are not limited to, precise quantum standards for electrical quantities, ultracold atoms and ion traps, sensitive sensors for magnetic fields, single photon sources and detectors and ultrastable and precise optical clocks.

This expertise in quantum technology, together with PTB's mission to support industry in metrology as a governmental body, puts PTB into an ideal and natural position to transfer quantum technology from science to application in collaboration with industry and academia. For this task, PTB has recently established the Quantum Technology Competence Center (QTZ) at PTB. The QTZ will focus on the development of user-friendly and robust components for quantum sensing and metrology and on providing calibrations, services and user facilities accessible for external partners from industry and academia. Furthermore, QTZ will offer hands-on training and seminars for quantum technology and support start-ups. In my talk, I will introduce the QTZ and report on latest activities and future plans.