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Strontium lattice clocks at PTB: transportable and in the lab

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Abstract

I will present our developments in the field optical lattice clocks for applications in the laboratory and as transportable devices. The talk will address a new laboratory clock with the capability of cryogenic interrogation. I will present a new transportable interrogation laser system with below $2\text{E-}16$ fractional frequency instability and our plans for a new transportable strontium lattice clock that targets $1\text{E-}18$ uncertainty. Furthermore, I will discuss our progress concerning chip-based traps for strontium.
