Contribution ID: 70 Type: Invited Poster

A Laser-Cooled Optical Beam Clock

We have recently demonstrated a laser-cooled optical beam clock based on the 10mHz-wide 1S0-3P0 transition in neutral ytterbium. Our goal is to combine the robust architecture of a beam clock with the improved performance offered by optical transitions to produce a device that can provide high-performance timing capabilities outside of the lab.

Author: OFFER, Rachel (Institute for Photonics and Advanced Sensing, University of Adelaide)

Co-authors: STRATHEARN, Aidan (Institute for Photonics and Advanced Sensing, University of Adelaide); LUITEN, Andre (Institute for Photonics and Advanced Sensing, University of Adelaide); HILTON, Ashby (Institute for Photonics and Advanced Sensing, University of Adelaide); WHITE, Benjamin (Institute for Photonics and Advanced Sensing, University of Adelaide); KLANTSATAYA, Elizaveta (Institute for Photonics and Advanced Sensing, University of Adelaide); BOURBEAU HÉBERT, Nicolas (Institute for Photonics and Advanced Sensing, University of Adelaide)

Presenter: OFFER, Rachel (Institute for Photonics and Advanced Sensing, University of Adelaide)

Track Classification: Miniature, Portable and Space Systems