

A Thermal-noise-limited Fibre Frequency Reference with 0.1 Hz/ $\sqrt{\text{Hz}}$ Stability

We describe a passive, fibre-optic frequency reference with a state-of-the-art short-timescale stability of 0.1 Hz/ $\sqrt{\text{Hz}}$. We model and compute limiting noise sources, including Double Rayleigh scattering and intrinsic fibre thermal noise.

Author: ZHANG, Ya (Australian National University)

Co-authors: BANDUTUNGA, Chathura; Prof. CHOW, Jong (Australian National University); Dr GRAY, Malcolm (Australian National University); Dr MCRAE, Terry (Australian National University)

Presenter: ZHANG, Ya (Australian National University)

Track Classification: Miniature, Portable and Space Systems