

Abstracts

Primary frequency standards at NIST

D.B. Sullivan. "Primary frequency standards at NIST." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 849-852 vol.2.

The development of primary frequency standards at the National Institute of Standards Technology (NIST) is traced, and generations of atomic frequency standards described: cesium-beam standards, cesium-fountain standards, and stored-ion standards. The uncertainty of the present NIST frequency standard is 1.7 parts in 10^{15} , but the prospects for substantial improvement are high. Finally, the uncertainties of the most recent NIST standards are displayed relative to the uncertainties of standards of several other countries.

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