

**Erratum: Neutral Atom Frequency Reference in the Deep Ultraviolet
with Fractional Uncertainty = 5.7×10^{-15}
[Phys. Rev. Lett. 108, 183004 (2012)]**

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In this Letter, we reported an absolute frequency measurement of the $^{199}\text{Hg } ^1S_0\text{-}^3P_0$ transition used in optical lattice clocks. We found that a mistake was made in the calculation of the gravitational redshift between the Hg optical lattice clock and the cesium fountain used for this measurement. When the gravitational redshift correction is made properly, the correct value for the result of our measurement of the absolute frequency of the $^{199}\text{Hg } ^1S_0\text{-}^3P_0$ transition is $1128\,575\,290\,808\,155.1\text{ Hz} \pm 6.4(\text{syst}) \pm 0.3(\text{stat})\text{ Hz}$. The size of the correction amounts to 1.1 times the overall standard uncertainty of the measurement. It is therefore rather small. Nevertheless, the corrected value should be taken into account when comparing to other existing and future determinations of the same quantity. To date, and to the best of our knowledge, there is only one other published determination [1]. The correction improves the agreement between the two determinations. These measurements were and will be used in the list of recommended values of standard frequencies [2] of the Comité International des Poids et Mesures, International Committee for Weights and Measures (CIPM) [2]. For this purpose also, it is important to use the best possible values. Highly accurate atomic frequency comparisons are used to test the stability of natural constants (see, for instance, Ref. [3] and references therein) and other fundamental laws of nature. In the future, the measurement addressed by this Erratum may serve this application. For this too, it is important to use the corrected value.

- [1] K. Yamanaka, N. Ohmae, I. Ushijima, M. Takamoto, and H. Katori, Frequency Ratio of ^{199}Hg and ^{87}Sr Optical Lattice Clocks beyond the SI Limit, *Phys. Rev. Lett.* **114**, 230801 (2015).
- [2] See the list of recommended values of standard frequencies for applications including the practical realization of the metre and secondary representations of the second: <http://www.bipm.org/en/publications/mises-en-pratique/standard-frequencies.html>.
- [3] J. Guéna, M. Abgrall, D. Rovera, P. Rosenbusch, M. E. Tobar, Ph. Laurent, A. Clairon, and S. Bize, Improved Tests of Local Position Invariance Using ^{87}Rb and ^{133}Cs Fountains, *Phys. Rev. Lett.* **109**, 080801 (2012).