ERRATA

Anomalous Magnetic Moment of the τ Lepton
[Phys. Rev. Lett. 67, 668 (1991)]

Mark A. Samuel, Guowen Li, and Roberto Mendel

The contributions of Figs. 1(a) and 1(b) should be changed slightly. Equation (5) should be replaced by

$$I^{(4)}(m_\tau/m_e) = 2.0256(7)(\alpha/\pi)^2$$
$$= 1.0929(4) \times 10^{-5}$$

and Eq. (6) should be replaced by

$$I^{(4)}(m_\tau/m_\mu) = 0.3626(5)(\alpha/\pi)^2$$
$$= 0.1956(3) \times 10^{-5}.$$

Correspondingly Eq. (7) should be replaced by

$$(a_\tau - a_e)^{(4)} = 1.2885(6) \times 10^{-5}.$$

All other results given in the paper remain unaffected because the above correction represents a very minor change of 2×10^{-9} in a_τ, which is *negligible* compared to the estimated uncertainty in the hadronic contribution (3×10^{-7}).

We have used the mass of the tau lepton given in the 1992 Review of Particle Properties [1] $m_\tau = 1784.1^{+2.7}_{-3.6}$. Note that the estimated errors in Eqs. (5), (6), and (7) have changed.

After this paper was published we became aware of an earlier paper [2] estimating a_τ. We thank S. Narison for making us aware of his early work. However, we have established [3] that his result for the QED contribution is wrong by

$$a_\tau^{QED}(\text{Narison}) - a_\tau^{QED} = -3.6 \times 10^{-6} = -0.67(\alpha/\pi)^2,$$

which is at the level of fourth-order QED. Although his method is similar to ours, he has weighted the various Feynman diagrams incorrectly, and this leads to his wrong result. His estimates for $a_\tau^{(\text{hadronic})}$ and $a_\tau^{(\text{weak})}$ do agree with our results within stated error estimates. It also appears that his sixth-order contribution agrees roughly with ours.

[1] K. Hikasa et al., Phys. Rev. D 45, S1 (1992).
[2] S. Narison, J. Phys. G 4, 1849 (1978).
[3] Also corroborated independently by T. Kinoshita, S. Narison, and A. Pich (private communications).

Ab Initio Theory of the Si(111)-(7 × 7) Surface Reconstruction:
A Challenge for Massively Parallel Computation
[Phys. Rev. Lett. 68, 1355 (1992)]

Karl D. Brommer, M. Needels, B. E. Larson, and J. D. Joannopoulos

On page 1356, the last sentence of the third paragraph, "22 Å × 22 Å × 26 Å" should read "26.6 Å × 26.6 Å × 22.5 Å."
Also, in the next to last paragraph on the same page, "except the innermost layer" should read "except the two innermost layers."