Erratum: High-precision measurement of the hyperfine splitting and ac Stark shift of the $7d\,^2D_{3/2}$ state in atomic cesium [Phys. Rev. A 106, 042811 (2022)]

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As reported in Table I and discussed in Sec. IV of our paper, there were significant differences in our measured values of the hyperfine splittings of the $7d_{3/2}$ state depending on whether the atoms were excited from $6s_{1/2}$ ($F = 3$) or the $6s_{1/2}$ ($F = 4$) level. The discrepancy is resolved on accounting for quantum interference of optical transition pathways in Doppler-free two-photon spectroscopy as was recently reported by us [1]. Based on the new measurements reported in Ref. [1], the contents in Table I of the original paper should be replaced with the revised values of the hyperfine splittings:

Hyperfine splitting	This work $F = 3$	This work $F = 4$	This work using A, B, C
$F' = 5 \leftrightarrow F' = 4$	36.760(9)	36.760(10)	36.760
$F' = 5 \leftrightarrow F' = 3$	66.187(13)	66.187(14)	66.187
$F' = 5 \leftrightarrow F' = 2$	88.260(16)	88.258(17)	88.260
$F' = 4 \leftrightarrow F' = 3$	29.427(5)	29.427(5)	29.427
$F' = 4 \leftrightarrow F' = 2$	51.500(8)	51.498(9)	51.500
$F' = 3 \leftrightarrow F' = 2$	22.073(5)	22.071(5)	22.072

Accordingly, the contents of Table II should be replaced with the revised values of the hyperfine coupling constants:

Coupling constant	This work
A (MHz)	7.3547(8)
B (MHz)	−0.017(7)
C (kHz)	−0.3(4)

Other experiments referred to in our work did not have the precision required to observe the line shifts caused by the quantum interference [1].

[1] B. Rahaman, S. C. Wright, and S. Dutta, Observation of quantum interference of optical transition pathways in Doppler-free two-photon spectroscopy and implications for precision measurements, arXiv:2308.12386 [Phys. Rev A (to be published)].

