Erratum: Implementation of Cavity Squeezing of a Collective Atomic Spin [Phys. Rev. Lett. 104, 073602 (2010)]

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DOI: 10.1103/PhysRevLett.106.129902 PACS numbers: 42.50.Dv, 06.20.-f, 32.80.Qk, 42.50.Lc, 99.10.Cd

Equation (1) understates the photon shot noise inside the optical resonator by a factor of 2. It should read

$$\Delta S_y^2 = \frac{S^2}{2} + \frac{S_0}{4} - \left(\frac{S^2}{2} - \frac{S_0}{4}\right) \left(1 - 2\gamma \frac{Q}{S_0}\right) e^{-\xi^2 Q^2 / S_0},\tag{1}$$

where the ratio of total intracavity intensity fluctuations to photon shot noise should be $\gamma = 1 + \Delta p_f^2/p_0 = 1 + Q/74$. The experimental results, including the demonstrated squeezing, are unaffected by this correction to the model. The model predictions change by 31% at most for our experimental parameters, and remain in good agreement with the data.