Erratum: Elongation and Fluctuations of Semiflexible Polymers in a Nematic Solvent [Phys. Rev. Lett. 92, 125503 (2004)]

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In our paper, the expression for $\langle t_x(z')t_x(z'+z)\rangle$ is incorrect by a factor of $\frac{1}{2}$. Equation (2) should read

$$\langle t_x(z')t_x(z'+z)\rangle = \frac{\lambda}{2\ell_p}e^{-z/\lambda} + \frac{k_BT}{4\pi^2K\lambda}\int_0^\infty dx \frac{\cos(xz/\lambda)\log(1+D^2/x^2)}{(1+x^2)[1+x^2+\frac{k_BT\Gamma x^2}{4\pi K}\log(1+D^2/x^2)]}. \quad (2)$$

This error propagates simply through our data analysis, doubling our fit parameters, K, Γ, and ℓ_p. The Odijk length $\lambda = \sqrt{\ell_p/\Gamma}$ remains unchanged. This revises Table II, as shown. Again, the estimates for K are consistent with prior measurements. Note the best fit for ℓ_p of 3.0 μm is larger than measured previously [1]. However, because the fit is

TABLE II. Corrected values for the Odijk deflection length λ, the elastic constant of the background nematic K, and the coupling constant between wormlike micelles and background nematic Γ for different fd concentrations obtained from the fits shown in Fig. 4. The best-fit value of ℓ_p of wormlike micelles is 3.0 μm.

c_{fd} [mg/ml]	λ [μm]	K [10^{-8} dyne]	Γ [$1/\mu$m]
39	0.18	3.8	92
51	0.13	4.8	176
97	0.06	5.6	832

dominated by the nematic fluctuations, i.e., the second term in Eq. (2), our data apparently do not resolve ℓ_p with precision. The other results still hold and these corrections do not modify our conclusions.

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[1] P. Dalhaimer *et al.*, Macromolecules **36**, 6873 (2003).

