Erratum: Reconstructing the Free-Energy Landscape of a Mechanically Unfolded Model Protein [Phys. Rev. Lett. 99, 168101 (2007)]

Alberto Imparato, Stefano Luccioli, and Alessandro Torcini (Received 21 March 2008; published 18 April 2008)

DOI: 10.1103/PhysRevLett.100.159903

PACS numbers: 87.15.A-, 05.90.+m, 82.37.Rs, 99.10.Cd

In our recent Letter [1], we have studied the free-energy landscape of an off-lattice model protein as a function of its elongation. Some of the free-energy profiles reported in Fig. 3 of the Letter were incorrect; therefore, this figure should be replaced with Fig. 1 displayed below. In particular, the errors concern only the curves for the temperatures T = 0.5, 0.6, and 0.7, which have been obtained by substituting a wrong value of z(0) in Eq. (1) of the Letter, where z(0) is the equilibrium position of the external potential $U_{z(t)}(\zeta) = \kappa [z(t) - \zeta]^2/2$ at t = 0. In the same figure, the curves at lower temperatures remain unchanged.

Since the results for T = 0.5, 0.6, and 0.7 have been reported in Fig. 3 only to give an idea of the behavior of the freeenergy landscape at high temperature, these errors do not affect any other result of the Letter. Indeed, all our quantitative results have been obtained in proximity of the folding temperature, namely, at T = 0.3, and thus none of the conclusions of this work is altered in any respect.



FIG. 1 (color online). Free-energy profile $f(\zeta)$ as obtained by Eq. (1) for various temperatures: T = 0.2 (stars), 0.4 (plus signs), 0.5 (squares), 0.6 (triangles), and 0.7 (circles). In the inset, an enlargement is reported at small ζ . The data refer to $v_p = 5 \times 10^{-4}$.

[1] A. Imparato, S. Luccioli, and A. Torcini, Phys. Rev. Lett. 99, 168101 (2007).