ERRATA

Erratum: Stationary probability distribution near stable limit cycles far from Hopf bifurcation points [Phys. Rev. E 48, 1646 (1993)]

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PACS number(s): 05.40.+j, 99.10.+g

We did not specify that the proof we gave in the Appendix holds provided the matrix $\hat{U}(t)$ is Hermitian. In the general case this matrix is non-Hermitian, and the matrix $\hat{S}$ used to diagonalize $\hat{U}(t)$ is not unitary. However, the result we were proving (that the probability distribution is Gaussian in the directions transverse to the limit cycle) applies for a non-Hermitian $\hat{U}(t)$. Generalization of the proof is straightforward and will be presented elsewhere.

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Erratum: Phase ordering dynamics of cosmological models [Phys. Rev. E 50, 2523 (1994)]

J. A. N. Filipe and A. J. Bray

PACS number(s): 64.60.Cn, 64.60.My, 98.80.Cq, 99.10.+g

On p. 2528 (top of first column) where it reads "to obey $|\phi|<1$ at all times . . ." it should read "to obey $|\phi|\leq 1$ at all times . . .". On p. 2529 (middle of first column) where it reads "scaling function $f_{\rm LG}=C(1,2)_{\rm LG...}$" it should read "scaling function $f_{\rm LG}(x_s,q)=C(1,2)_{\rm LG...}$". On p. 2530 [after Eq. (41)] where it reads "e.g., (23), or by . . ." it should read "e.g., (22), or by . . .". Equation (45) should read as follows:

$$f(x,q)\simeq f_\infty(x,q)$$
$$\simeq\frac{B[(\alpha+1)/2,\frac{1}{2}]}{4(\alpha+1)B(\alpha,\frac{3}{2})}\frac{[(q+1)/2]^{\alpha+1}}{q^{\alpha/2}}(1+q-x)^{1+\alpha}\quad(x\to q+1)\,. \tag{45}$$

Equation (50) should read as follows:

$$\langle(\nabla\phi)^2\rangle=C_\gamma(1,1)\frac{\langle(\nabla\mathbf{m})^2\rangle}{S_0}=C_\gamma(1,1)\langle(\nabla\phi)^2\rangle_\infty\,. \tag{50}$$

The first line of Eq. (51) should read as follows:

$$\langle\dot\phi^2\rangle_\infty=\gamma_\infty(\dot1,\dot2)_{2\to1}\equiv\gamma_\infty(\dot1,\dot1)=\frac{T_0}{(\alpha-2)\eta_1^2}\,. \tag{51}$$

On p. 2532 (top of first column) where it reads "is $w\equiv2/\sigma,\ldots$" it should read "is $w\equiv4/\sigma,\ldots$". On the same page [after Eq. (56)] the equation

$$\langle\phi'^2\rangle=\int_{-\infty}^{\infty}dm\;P(m)\phi'^2=\sigma P(0)$$

should read

$$\langle \phi'^2 \rangle = \int_{-\infty}^{\infty} dm\, P(m)\phi'^2 = a\sigma P(0)\ .$$

On the same page (middle of second column) where it reads "replacing ϕ'^2 by $\sigma\delta(m),\ldots$" it should read "replacing ϕ'^2 by $a\sigma\delta(m),\ldots$". The second line of Eq. (A17) in the Appendix, should read as follows:

$$C_\infty(i,i) = \frac{1}{\eta_1^2}\frac{T_0}{\alpha-2} = -\nabla^2 C_\infty(1,1) + \frac{T_0}{\eta_1^2}\ . \tag{A17}$$

Erratum: Lagrangians of physics and the game of Fisher-information transfer [Phys. Rev. E 52, 2274 (1995)]

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Equations (21a) and (21b) should read

$$I \equiv J \equiv (4/\hbar^2)\int\int d\boldsymbol{\mu}\, dE\, P(\boldsymbol{\mu},E)(-\mu^2 + E^2/c^2)\ , \tag{21a}$$

$$c\sum_{n=1}^{N/2} \phi_n^* \phi_n \equiv P(\boldsymbol{\mu},E)\ . \tag{21b}$$

Thus, a factor c was removed from the old Eq. (21a) since it belongs, instead, within definition (21b) of P. The result is that Eq. (22) now reads

$$J = \left[\frac{4}{\hbar^2}\right]\left\langle -\mu^2 + \frac{E^2}{c^2}\right\rangle\ . \tag{22}$$

The lack of a c in the first factor then obviates the following remark about c five lines below: "In the first factor, a parameter c is already fixed as a universal constant, from the EPI general relativity derivation [16]."

Using the new identity (21b), and the normalization of P, in Eq. (27) gives the information

$$J \equiv I = (2mc/\hbar)^2 \equiv (2/\mathcal{L})^2\ , \tag{27a}$$

where $\mathcal{L}$ is the Compton wavelength for the particle. But, by Eq. (1) of the paper, I relates to the minimum mean-square error e^2 of estimation of the particle four position, as

$$e_{\min}^2 = 1/I\ . \tag{1}$$

Hence, Eq. (27a) predicts that the minimum root-mean-square error e is one-half the Compton wavelength. This is reasonable, since the Compton wavelength is a limiting resolution length in the measurement of particle position. The upshot is that the information-based derivation (now) makes a reasonable prediction on resolution, as well as deriving the Klein-Gordon and Dirac equations (the main thrust of the paper).

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