

## ERRATA

### Erratum: Cluster formation, standing waves, and stripe patterns in oscillatory active media with local and global coupling [Phys. Rev. E 52, 763 (1995)]

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The exponent 3 in Eq. (6) is not in the right position. The correct equation is

$$\frac{dp_{\text{CO}}}{dt} = \frac{J_{i0}}{V} \left[ p_{\text{COE}} - p_{\text{CO}} \left( 1 + \frac{V_{\text{ML}}}{J_{i0}A} \int_A dz^2 \left\{ k_1 p_{\text{CO}} \left[ 1 - \left( \frac{c}{c_s} \right)^3 \right] - k_2 \left( \frac{c}{c_s} \right) \right\} \right) \right]. \quad (6)$$

There is an error in the differential equations (17) for  $\eta_0$  and  $\eta_k$ . The factor 2 of the last term of the fourth line has to be canceled. The correct equation for the amplitude  $\eta_k$  is

$$\dot{\eta}_k = [1 - i\omega - (1 + i\varepsilon)k^2] \eta_k - (1 + i\beta)[3(|\eta_k|^2) + 2|\eta_0|^2] \eta_k + \eta_0^2 \eta_k^*. \quad (17)$$

That results in the following equations (19)–(21) for  $E_0$ ,  $E_k$ ,  $\Omega$ , and  $\gamma$ :

$$1 + i\Omega - \mu e^{i\chi} = (1 + i\beta)[E_0^2 + 2(2 + e^{-2i\gamma})E_k^2], \quad (19)$$

$$1 + i\Omega - (1 + i\varepsilon)k^2 = (1 + i\beta)[3E_k^2 + (2 + e^{2i\gamma})E_0^2],$$

$$E_k^2 = \frac{1 - k^2 - (1 - \mu \cos\chi)(2 + \cos 2\gamma - \beta \sin 2\gamma)}{3 - 2(2 + \cos 2\gamma + \beta \sin 2\gamma)(2 + \cos 2\gamma - \beta \sin 2\gamma)},$$

$$E_0^2 = \frac{3(1 - \mu \cos\chi) - 2(1 - k^2)(2 + \cos 2\gamma + \beta \sin 2\gamma)}{3 - 2(2 + \cos 2\gamma + \beta \sin 2\gamma)(2 + \cos 2\gamma - \beta \sin 2\gamma)}, \quad (20)$$

$$\Omega = \beta - (\beta - \varepsilon)k^2 + (1 + \beta^2)\sin 2\gamma \frac{3(1 - \mu \cos\chi) - 2(1 - k^2)(2 + \cos 2\gamma + \beta \sin 2\gamma)}{3 - 2(2 + \cos 2\gamma + \beta \sin 2\gamma)(2 + \cos 2\gamma - \beta \sin 2\gamma)},$$

$$\sum_{i=0}^4 r_i \tan^i \gamma = 0,$$

$$r_0 = -15r_4 = 15[(\beta - \varepsilon)k^2 + \mu(\sin\chi - \beta \cos\chi)],$$

$$r_1 = 6\mu(1 + \beta^2)\cos\chi + 8(1 + \beta^2)k^2 - 14(1 + \beta^2), \quad (21)$$

$$r_2 = 2\mu(3 - 4\beta^2)\sin\chi - 14\mu\beta \cos\chi + (8\varepsilon\beta^2 - 6\varepsilon + 14\beta)k^2,$$

$$r_3 = 2(1 + \beta^2)(1 - \mu \cos\chi).$$

At  $\varepsilon=8$ ,  $\beta=1.4$ ,  $\chi=1.65$ ,  $\mu=6$ , and  $k=k_{\text{max}}=0.6710$  we get  $E_0=1.1127$ ,  $E_k=0.1987$ ,  $\Omega=7.8250$ , and  $\gamma=0.9525$ . From numerical simulations we obtained  $E_0=1.0978$ ,  $E_k=0.3036$ ,  $\Omega=7.9467$ . If we use the wave vector  $k=0.6749$ , which was found numerically, instead of  $k_{\text{max}}$ , we have  $E_0=1.1069$ ,  $E_k=0.2050$ ,  $\Omega=7.8122$ , and  $\gamma=0.9610$ . The coincidence of  $E_0$  and  $\Omega$  is improved. No essential features of the solution of (17) have been influenced by the mistake.

**Erratum: Chaotic behavior of renormalization flow in a complex magnetic field**  
**[Phys. Rev. E 52, 4512 (1995)]**

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(i) Equation (9) should read

$$M_{N \rightarrow \infty} = \frac{\partial \ln Z_N}{N \partial h} = \frac{e^{2K} \sinh(h)}{\sqrt{1 + e^{4K} \sinh^2(h)}}. \quad (9)$$

(ii) The discussion of Lee-Yang zeros is erroneous. Equation (18) and the ensuing paragraph should read

$$Z_N = (\lambda_+)^N + (\lambda_-)^N = 0 \Leftrightarrow \lambda_+ = e^{iq\pi/N} \lambda_-, \quad (18)$$

where  $-N < q \leq N$  is odd. Using the explicit form of the eigenvalues, (3), this leads to

$$\cos\left(\frac{q\pi}{2N}\right) \sqrt{e^{-4K} + \sinh^2(h)} = i \sin\left(\frac{q\pi}{2N}\right) \cosh(h). \quad (19)$$

This equation can be rearranged to give

$$\cos(\theta_q) = \sqrt{1 - t^2} \cos\left(\frac{q\pi}{2N}\right), \quad (20)$$

where  $t = e^{-2K}$  as before and  $\theta_q$  are the  $N$  roots in the rotated complex  $h$  plane,  $h = i\theta$ . Since  $0 < t < 1$  the  $N$  values of  $\theta_q$  are all real and they lie in the range  $t < |\sin(\theta_q)| < 1$ , which is precisely the region above the critical line in Fig. 1. In the thermodynamic limit ( $N \rightarrow \infty$ ) the lowest zeros are at  $\sin(\theta_q) = t$ , which is the critical line. Thus, in the thermodynamic limit, the critical line coincides with the rightmost Lee-Yang zeros in the complex activity plane.

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**Erratum: Kinetic theory of multicomponent dense mixtures**  
**of slightly inelastic spherical particles [Phys. Rev. E 52, 4877 (1995)]**

Piroz Zamankhan

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There was a typographical error in the above-mentioned paper. Equation (3) on page 4879 should read as follows:

$$\begin{aligned} \frac{df^{n(1)}(x_j^n, C_j^n, t)}{dt} = & \left[ -C_j^n \frac{\partial}{\partial x_j} + C_j^n \frac{\partial u_j}{\partial x_k} \frac{\partial}{\partial C_k} + \left( \frac{du_j}{dt} \frac{\partial}{\partial C_j} - F_j^n \frac{\partial}{\partial C_j} \right) \right] f^{n(1)}(x_j^n, C_j^n, t) \\ & + \sum_{p=1}^s \int \int [g^{np}(x_j, x_j + \sigma^{np} k_j | \{n_s\}) f^{n(1)}(x_j, c_j^n, t) f^{p(1)}(x_j + \sigma^{np} k_j, c_j^p, t) \\ & - g^{np}(x_j, x_j - \sigma^{np} k_j | \{n_s\}) f^{n(1)}(x_j, c_j^n, t) f^{p(1)}(x_j - \sigma^{np} k_j, c_j^p, t)] c_j^{np} k_j \sigma^{np^2} H(c_j^{np} k_j) dk_j dc_j^p. \quad (3) \end{aligned}$$

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