

Corrigenda: Detection and Characterization of Dynamical Heterogeneity in an Event Series Using Wavelet Correlation

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(Dated: September 11, 2018)

A few typographic errors were discovered after the article's publication in the *Journal of Chemical Physics*, **129**, 074701 (2008). They are listed below:

Oversights pointed out by Dr. Markus Selmke:

- Page 074701-6, column 2, the first unnumbered expression (three equations above Eq. (12)): was

$$\langle\langle\delta x_{m_\ell}\delta x_{m_\ell+m}\rangle\rangle = A_\ell e^{-m/M_\ell},$$

should be

$$\langle\langle\delta x_{m_\ell}\delta x_{m_\ell+m}\rangle\rangle = \frac{A_\ell}{M_\ell} e^{-m/M_\ell},$$

The original theory and computer code were correct; but a mistake was made when transcribing to the manuscript (2009.05.14).

- Page 074701-6, column 2, Eq. (12): was

$$\bar{q}_\ell \equiv \int_0^1 q \hat{h}(q, t_\ell) dq = \frac{\log[1 + 4\pi^2 M_\ell]}{4\pi M_\ell \arctan[2\pi M_\ell]}.$$

should be

$$\bar{q}_\ell \equiv \int_0^1 q \hat{h}(q, t_\ell) dq = \frac{\log[1 + 4\pi^2 M_\ell^2]}{4\pi M_\ell \arctan[2\pi M_\ell]}.$$

The original theory and computer code were correct; but a mistake was made when transcribing to the manuscript (2009.05.15).

- Page 074701-6, column 2, the unnumbered expression after Eq. (13): was

$$\tilde{h}_{j,k}(\ell) = \frac{d_{j,k}(\ell) \cdot \Delta f_w^{(j)} \cdot \Delta t^{(j)}}{\sum_{j=1}^J \sum_{k=1}^{2^{-j}n_\ell} d_{j,k}(\ell) \cdot \Delta f_w^{(j)} \cdot \Delta t^{(j)}};$$

should be

$$\tilde{h}_{j,k}(\ell) = \frac{|d_{j,k}(\ell)|^2 \cdot \Delta f_w^{(j)} \cdot \Delta t^{(j)}}{\sum_{j=1}^J \sum_{k=1}^{2^{-j}n_\ell} |d_{j,k}(\ell)|^2 \cdot \Delta f_w^{(j)} \cdot \Delta t^{(j)}}.$$

Note the squared analyzing wavelet coefficient, $|d_{j,k}(\ell)|^2$. The original theory and computer code were correct; but a mistake was made when transcribing to the manuscript (2008.09.22).

- Page 07401-7, column 2, Eq. (16): was

$$Z_{N_\ell} = \left| \frac{1}{n_\ell} \sum_{\ell=1}^{n_t} C_{\tau\tau}(t_\ell) \right| > c_{1-\alpha},$$

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should be

$$Z_{N_\ell} = \left| \frac{1}{n_t} \sum_{\ell=1}^{n_t} C_{\tau\tau}(t_\ell) \right| > c_{1-\alpha},$$

Note the n_t normalization factor, a typo was not caught during the proof stage (2009.05.14).

- Page 07401-7, column 2, last paragraph: was
“... , one has $\sigma_{\tau\tau} = 9.91 \times 10^{-4}, \dots$ ”
should be
“... , one has $\bar{\sigma}_{\tau\tau} = 9.91 \times 10^{-4}, \dots$ ”.
Similar corrections should be applied to the figure caption of Fig. 6, a typo was not caught during the proof stage (2009.05.14).
- Page 07401-10, column 2, last paragraph: was

$$|d_{j,k}|^2 = \frac{2^{-j} \sin^4 [2^{j-1} q_0 \pi]}{4\pi^4 q_0^2}.$$

should be

$$|d_{j,k}|^2 = 4 \frac{2^{-j} \sin^4 [2^{j-1} q_0 \pi]}{\pi^2 q_0^2}.$$

The original theory and computer code were correct; but a mistake was made when transcribing to the manuscript (2010.02.11).

- Clarification: page 07401-5, column 2, the admissibility condition number in print reads,

$$c_\psi = \int_0^\infty 1/f \left| \hat{\psi}(f) \right|^2 df.$$

This expression can be confusing. The representation in the original L^AT_EX manuscript is clearer and reads,

$$c_\psi = \int_0^\infty \frac{1}{f} \left| \hat{\psi}(f) \right|^2 df.$$

(2010.02.11).

Oversights pointed out by Tobias Thalheim:

- Page 07401-5, column 2, second to the last equation: was

$$\tilde{E}_j(\ell) = \sum_{k=1}^{2^{-j}} \tilde{E}_{j,k}(\ell).$$

should be

$$\tilde{E}_j(\ell) = \sum_{k=1}^{2^{-j} n_\ell} \tilde{E}_{j,k}(\ell).$$

The original theory and computer code were correct; but a mistake was made when transcribing to the manuscript (2018.09.11).

- Page 07401-6, column 2, third to the last sentence for the definition of $\Delta f_w^{(j)}$: was

$$\Delta f_w^{(j)} = f_w^{(j)}$$

should be

$$\Delta f_w^{(j)} = f_w^{(j+1)} - f_w^{(j)}.$$

The original theory and computer code were correct; but a mistake was made when transcribing to the manuscript (2018.09.11).

Erratum:

- Page 07401-6, column 2, below Eq. (13): was

“...where $\bar{h}_{j,k}(\ell)$ is normalized wavelet spectral density...”

should be

“...where $\tilde{h}_{j,k}(\ell)$ is normalized wavelet spectral density...”

This error was not caught during the proofreading stage (2018.09.11).