Ann. Geophys., 31, 315, 2013
www.ann-geophys.net/31/315/2013/
doi:10.5194/angeo-31-315-2013

Annales Geophysicae
Open Access

Corrigendum to

"Significance tests for the wavelet power and the wavelet power spectrum" published in Ann. Geophys., 25, 2259–2269, 2007

Z. Ge

US Geological Survey, 1100 N. Mineral Springs Road, Porter, Indiana 46304, USA

Correspondence to: Z. Ge (zge@usgs.gov)

Zhang and Moore's comment on Ge (2007) correctly pointed out that a factor of δt is redundant in Eq. (18). Since this error affects multiple equations, they are corrected as follows.

The claim that wavelet coefficients defined and calculated by Torrence and Compo (1998), $W_n(a)$, should be adjusted with δt to be equal to the wavelet coefficient $T_n(a)$ (or $T(a,b)$) should be withdrawn. In fact, as apposed to Eq. (A3), $W_n(a) = T_n(a)$. This correction affects part of Sect. 2 and Appendix A.

A factor of δt should be dropped from Eqs. (13), (14), (16)–(18), (21), (34), (36), and (B1).

A factor of δt^2 should be dropped from Eqs. (24), (25), (29)–(33), (C1), and (C6)–(C8). For Eqs. (C6) and (C7), no changes to the exponents are needed.

Similarly, expressions in discussions and intermediate steps should have δt dropped from statistics having the dimension squared $T(a,b)$, and should have δt^2 dropped from those having the dimension $T(a,b)$ to the fourth power.

Patterns in the figures remain correct, but both calculated statistics based on wavelet coefficients and the associated significance levels have been mistakenly multiplied by δt or δt^2.

References

Ge, Z.: Significance tests for the wavelet power and the wavelet power spectrum, Ann. Geophys., 25, 2259–2269, doi:10.5194/angeo-25-2259-2007, 2007.

Torrence, C. and Compo, G. P.: A practical guide to wavelet analysis, B. Am. Meteorol. Soc., 79, 61–78, 1998.

Zhang, Z. and Moore, J. C.: Comment on "Significance tests for the wavelet power and the wavelet power spectrum" by Ge (2007), Ann. Geophys., 30, 1743–1750, doi:10.5194/angeo-30-1743-2012, 2012.

Published by Copernicus Publications on behalf of the European Geosciences Union.