

CORRECTION

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# Correction to: Shigaraki UAV-Radar Experiment (ShUREX): overview of the campaign with some preliminary results

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## Correction

An error in computing the spectral level from time series data from UAV-borne sensors was discovered after this article (Kantha et al. 2017) was published. This error has to do with inadvertent use of non-variance preserving Hanning window during spectral analysis, which leads to significant underestimate of the TKE dissipation rate  $\varepsilon$  derived from pitot tube data, structure function parameter  $C_T^2$  from cold wire data, and dissipation rate of temperature variance  $\chi_T$  and structure function parameter  $C_n^2$ .  $\varepsilon$  was underestimated by an average factor of about 5.1, and  $C_T^2$  and  $C_n^2$  by about 3.0. In addition, the coefficient in

$$\chi_T = 0.9309 C_T^2 \varepsilon^{1/3} \quad (8)$$

relating  $\chi_T$  and  $C_T^2$  and  $\varepsilon$  should have been 0.3125, but instead was 0.9309, a factor of  $\sim 3$  higher. However, since both  $C_T^2$  and  $\varepsilon$  were underestimated by a factor of 3 and 5.1, respectively,  $\chi_T$  was underestimated by a factor of just 1.7.

Therefore,  $\varepsilon$  values in Figs. 12, 13, 15 and 16 should be multiplied by 5.1,  $C_T^2$  values in Fig. 17 by 3.0,  $\chi_T$  values in Fig. 18 by 1.7 and  $C_n^2$  values in Fig. 19 by 3.0. The discussions in the text should be correspondingly modified. The lead author accepts the responsibility and apologizes for this error.

We also take this opportunity to point out that ShUREX 2015 and 2016 data have been processed and the scientific results are available in the references (Luce et al. 2017, 2018a, b) cited in this correction. The reader is also referred to: (Luce et al. 2018c) /Luce H, Kantha L, Hashiguchi H, Lawrence D, Doddi A (2018) Turbulence Kinetic

Energy dissipation rates estimated from concurrent UAV and MU radar measurements, personal communication/ /Kantha L, Luce H, Hashiguchi H (2018) On a numerical model for extracting TKE dissipation rate from VHF radar spectral width, personal communication/.

This has now been included in this correction.

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