CORRIGENDUM

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In Weber and Talkner (1993) it is reported that the Gaussian correlation model \( \exp(-a \theta^2) \) (\( \theta \) is the great circle distance) is not positive definite on the sphere for small values of \( a \), but is positive definite for large values of \( a \). This latter claim was based on the results of approximations of the spectral expansion of the correlation function. However, beyond the validity range of these approximations the spectral expansion coefficients may become negative for all values of \( a \), thus demonstrating that the Gaussian model is not positive definite on the sphere for all nonzero values of \( a \), a result that is nicely proved in Gneiting (1998, manuscript submitted to Mon. Wea. Rev.).

To obtain a positive definite Gaussian-like correlation function on the sphere, the great circle distance \( \theta \) must be replaced by the Euclidean distance as in Eq. (15) of Weber and Talkner (1993).

Acknowledgments. We thank Dr. Gneiting for sending us his work prior to publication.

REFERENCES