

Interactive comment on “Background error covariance with balance constraints for aerosol species and applications in data assimilation” by Z. Zang et al.

A. Sandu (Editor)

sandu@cs.vt.edu

Received and published: 30 June 2016

Previous work reported in the literature has also looked into constructing background error covariances for chemical data assimilation. I would like to bring to authors' attention two particular papers, listed below. In my opinion they are relevant in the context of the approach proposed here.

E.M. Constantinescu, T. Chai, A. Sandu, and G.R. Carmichael: Autoregressive Models of Background Errors for Chemical Data Assimilation. *Journal of Geophysical Research*, Vol. 112, D12309, 2007. (<http://dx.doi.org/10.1029/2006JD008103>)

C4431

K. Singh, M. Jardak, A. Sandu, K. Bowman, M. Lee, and D. Jones: Construction of Non-diagonal Background Error Covariance Matrices for Global Chemical Data Assimilation. *Geoscientific Model Development*, Vol. 4, pp. 299–314, 2011. (<http://dx.doi.org/10.5194/gmd-4-299-2011>)

Interactive comment on Geosci. Model Dev. Discuss., 8, 10053, 2015.

C4432