

Interactive comment on “AnaWEGE: a weather generator based on analogues of atmospheric circulation” by P. Yiou

Anonymous Referee #1

Received and published: 18 December 2013

The application of weather generators as a means of downscaling of weather and climate values is still a topical theme. One great advantage, among others, is their very low calculating time, in comparison to dynamical models. The disadvantage of these generators is that they require a stationary or, at least, a quasi stationary climate - a fact which is pointed at in the article. This disadvantage can be diminished if not only SLP fields are used – as it has been done here – but further parameters from higher layers of the atmosphere are included which better describe the weather characteristics (see, e.g.: Bissolli, P. and Dittmann, E., 2003; Spekat et al., 2006, Kreienkamp et al., 2013). If those values are neglected, the application of this weather generator for the simulation of a future climatic development where, e.g., major temperature trends are expected, will be questionable resp. error-prone. It is not specified if certain situations have preferably been chosen for methodical reasons. If this is the case, this could

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increase the error in future simulations. References lack valuations on this topic. In contrast, the method validation on the basis of summer and winter temperatures in Europe can be assessed as sound.

The list of references should still be extended. As an example, there are more recent publications by two of the authors mentioned here (Semenov, 2008, Wilks, 2010). Busuioc & v. Storch (2003) should not be omitted, as well as the interesting paper by & Sharma (2009) on the evaluation of the spatio-temporal representativeness using three stochastic multi-site weather generators.

It is recommended to publish the article when these minor changes and additions will have been done.

Interactive comment on Geosci. Model Dev. Discuss., 6, 4745, 2013.