Hydrol. Earth Syst. Sci. Discuss., 2, S1301–S1302, 2005
www.copernicus.org/EGU/hess/hessd/2/S1301/
European Geosciences Union

Hydrology and Earth System Sciences Discussions

Interactive comment on "Comparison of two model approaches in the Zambezi river basin with regard to model reliability and identifiability" *by* H. C. Winsemius et al.

Anonymous Referee #2

Received and published: 17 January 2006

The authors responded to some my comments by making needed changes to the original paper. However, I still have a few concerns which were not accepted or misunderstood: 1. 'Orthogonal' information. This is a mathematical term that has a clear definition. To use it one should present a qualitative measure of this. I still think that a softer qualitative definition of different data sets is more appropriate. 2. It is not true statement that 'a spatial probability function of a threshold is also a threshold'. If all threshold-type storages are equal, it can be true. However, in reality they are very different that makes spatial averaging and deviating from threshold-type behavior. 3. 'Model structure'. The model structure is exactly what is presented in Figs. 6 and 8 and the authors agree with this in their response. This is basic model physics. When you

apply this physic over a basin you are looking for a spatial resolution, but the model is still the same. 4. Monthly time step. My point was that a high resolution distributed approach can not provide a real value compared to a simpler semi-distributed approach for such a smooth long memory behavior. Large Ks and Kq values are exact indicators of this.

Interactive comment on Hydrology and Earth System Sciences Discussions, 2, 2625, 2005.