

## ***Interactive comment on “A stochastic design rainfall generator based on copulas and mass curves” by S. Vandenberghe et al.***

**F. Beck**

ferdinand.beck@iws.uni-stuttgart.de

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There is a slight misinterpretation of the statistical significance of the hypothesis testing. Any hypothesis test can only estimate the error probability when  $H_0$  is rejected (error of 1st order). You do not know the probability of making a mistake when  $H_0$  is not rejected (error of 2nd order). When the goodness of fit testing is performed for the A12 copula, you stated that it is a significant fit if the hypothesis  $H_0$  is not rejected. This is wrong. Your test can only give you information on the significance when  $H_0$  is indeed rejected. This may seem paradoxical but it becomes clearer when one looks at the P-values of the hypothesis tests. The highest P-value that is obtained is 6%. This means that if one rejects the hypothesis that the A12 is suitable, one only makes an

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error in 1 out of 18 cases. So there is, in all four seasons, considerable doubt about the fact that the data follows the A12 copula. In Spring and Summer it is just not high enough to reject  $H_0$  on the 1% significance level. The same problem occurs to some of the fits for the Huff curves.

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