

***Interactive comment on “Reply to J. Vrugt’s
comment on “How effective and efficient are
multiobjective evolutionary algorithms at
hydrologic model calibration?”” by P. Reed et al.***

P. Reed et al.

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FINAL AUTHOR COMMENT

We would like to thank Dr. Vrugt and the reviewers for their time and comments. Dr. Vrugt continues to make excellent contributions to multiobjective optimization and we hope to build future collaborations between our research groups.

The intent of Tang et al. (2006) was not to pick a single best algorithm but to highlight a metric-based methodology for clearly understanding the efficiency, effectiveness, and reliability of state-of-the-art multiobjective optimization tools.

Our goal in this research was to be fair and clearly demonstrate failures/successes for

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all of the algorithms tested. In this process, we used our algorithm to maximize the performance of the other algorithms. In the case of SPEA2, this led to its superior performance for the Leaf River test case.

We feel that the study has advanced our subsequent research and provides pathways to future innovations. Evolutionary multiobjective optimization tools provide the opportunity for hydrologists to consider new and unique problem classes ("many objective problems or high order Pareto optimization").

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 4, 183, 2007.

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