

Interactive comment on “Calibration of a crop model to irrigated water use using a genetic algorithm” by T. Bulatewicz et al.

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Comment 1

"A flowchart is suggested to be included which can clearly illustrate the features of the integrated model and relate the maximum entropy estimation versus the genetic algorithm used in the proposed model."

Response

We agree that it would be helpful to include a diagram of how the optimization operates.

Changes to the Manuscript

Add new figure (see below) to page 2378 line 11.

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Comment 2

"The model uncertainty needs to be addressed."

Response

Model uncertainty is addressed in the first paragraph of section 6.1 (and figures 5-9), and section 6.2

Changes to the Manuscript

None.

Comment 3

"The section 6.3 predictability of the model is actually more like the model verification. Thus 'model verification' is a more suitable title for section 6.3."

Response

We agree that 'Model Verification' is a more appropriate title for section 6.3.

Changes to the Manuscript

The title of section 6.3 has been renamed to 'Model Verification'

Comment 4

"The authors need to discuss how to translate all the information generated from the model to useful knowledge which can assist local farmers, engineers and decision-makers to efficiently operate and manage the irrigation water use."

Response

We agree that this is not clearly stated in the manuscript.

Changes to the Manuscript

Add to page 2386, line 18:

"The particular team assembled for this paper crosses the spectrum of hydrologists,

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agronomists, economists, and computer scientists, and the results are being shared and translated by disciplinary specialists to interested collaborators, stakeholders and agencies with which the team is working. Examples include applications of the calibrated model in both irrigation studies and in the assessment of the economic impacts of water policy on farmers in western Kansas as part of an integrated model."

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 2367, 2009.

HESSD

6, C1598–C1601, 2009

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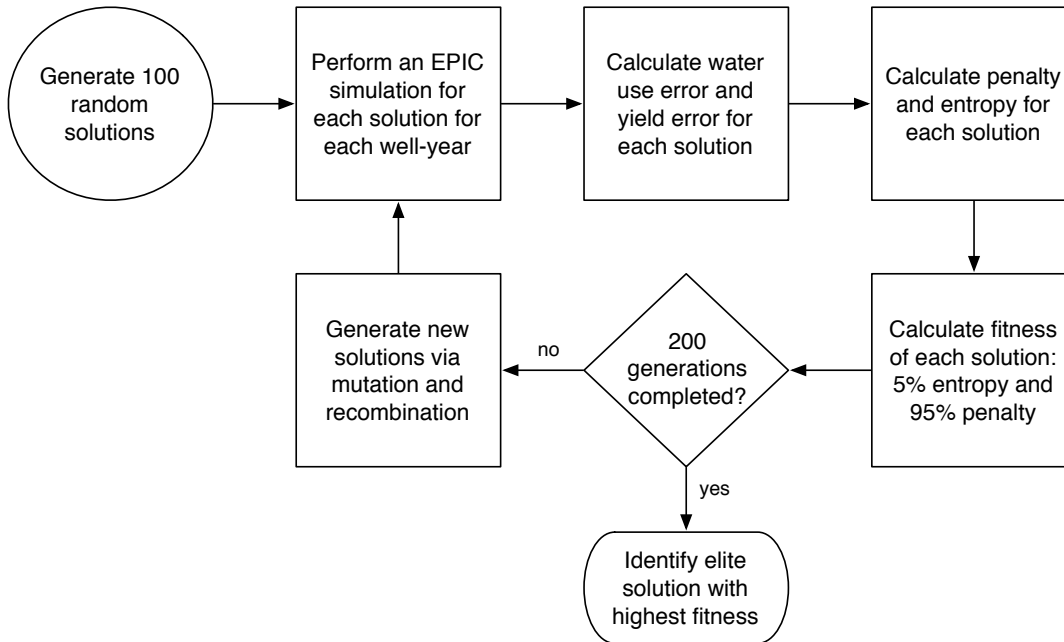


Fig. 1.

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