

Title: Automated calibration methodology to avoid convergence issues during inverse identification of soil hydraulic properties

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Dear editorial board,

We are pleased to submit our original manuscript entitled "Automated calibration methodology to avoid convergence issues during inverse identification of soil hydraulic properties" as a research article for consideration of publication in your journal.

The submitted paper aims to describe issues as well as successful approaches for inverse analyses of Richards equation problem, particularly an inverse analyses of the well-known single ring infiltration experiment. However, we have a strong believe that the applicability of the proposed approaches may find wide application field for different Richards equation inverse modeling problems and so it may attract readers' attentions from a broad community of modelers in soil sciences.

All computational results presented here were obtained from software modeling tools developed at our departments and distributed as opensource with a hope of delivering usability to scientific community.

We certify here there is no concurrent submission of this manuscript and it is formed out of the authors' original research. We would like to thank you for your consideration for publication.

kind regards

Michal Kuraz
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Czech Republic, Prague, February 22, 2022