Hydrol. Earth Syst. Sci. Discuss.,
https://doi.org/10.5194/hess-2018-519-AC2, 2019

Hydrology and Earth System Sciences
Discussions

Interactive comment on "Large-scale ERT surveys for investigating shallow regolith properties and architecture" *by* L. Gourdol et al.

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Received and published: 6 February 2019

During the Access review of our manuscript, the editor suggested us to have a look on an on-going line of research related to the objective of our work and which might be mentioned in our study: the optimization of ERT survey design. Indeed, in recent years, there has been substantial development of algorithms dedicated to automatically determine non-conventional electrode configurations (Loke et al., 2013). Those algorithms can lead to inverted ERT images whose resolution is superior or equal, respectively with the same or fewer number of measurements, to those using standard survey designs (for example, Wenner-Schlumberger or dipole-dipole (eg. Stummer et al., 2004; Furman et al, 2004, 2007; Wilkinson et al., 2006, 2012; Loke et al., 2014; Abdullah et al., 2018; Uhleman et al., 2018)). Thus, in the scope of large-scale ERT

surveys, such optimized non-conventional electrode arrays could help reducing the operational measurement time without reducing the information content. We agree with the editor (and we thank him for this suggestion) that this area of research deserves to be mentioned and discussed in our study (even if our work is different) and, if our manuscript is accepted for publication, we plan to bring new elements in this sense in the section "4. Discussion".

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2018-519, 2018.