

Interactive comment on “An extended trajectory-mechanics approach for calculating the path of a pressure transient: Hydraulic tomographic imaging” by Donald W. Vasco et al.

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Received and published: 7 August 2019

General comments

The reviewers comments were generally positive, in the revision we would follow their recommendations and (1) Put in a short overview of the methodology at the end of the section. (2) It is possible to construct the trajectory-based solution without a numerical reservoir simulator. That approach may be much more efficient. Even without that, the semi-analytic sensitivities have some computational advantage over numerical ones.

Specific comments

C1

- (1) P1L7. We will include that in the text.
- (2) P7L30. We will remove the repetition. (3) P9L9. Such limitations may be due to experimental difficulties and might be necessary for both methods
- (4) P10L13. Simply the rate of convergence. Once the method has converged no further iterations are required.
- (5) P10L23. Will rephrase.
- (6) P13L25. Will try and integrate it into another section.
- (7) P14L15. It is hard to say what the improvement will be. A test must be conducted and a comparison made. Fractured media require the correct conceptual model, might not behave like a simple porous medium.
- (8) P14L21. Will change that.
- (9) Fig. 1. Locations on both sides of the model are sources and receivers.
- (10) Figure 7. This is an error. The figure was changed to one without contour lines.
- (11) Figure 11. Thank you for the addition references. They will be included in the revision

In summary, this review is very helpful and we will make all of the suggested changes.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2019-215>, 2019.

C2