Interactive comment on “Two-dimensional numerical investigations on the termination of bilinear flow in fractures” by A. E. Ortiz R. et al.

Anonymous Referee #1

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The paper by Ortiz et al. is a well-written paper that addresses an important topic in production and geothermal studies. It does not, however, provide substantial original work.

The conclusions are supported by the numerical experiments and the general results are well presented. There are some minor issues with the current version that the authors may want to address in a final version of their article (below). I recommend minor revisions only.

1) Section 2.1 would benefit from a simple figure explaining the geometry and conceptual background of the problem
2) Section 3: While the numerical solution of the coupled equations are relatively simple, I think the authors should present a benchmark of their numerical scheme. Some information on the actual numerical technique will also be useful.
3) Figure 3 is not well explained either in the text or in the caption. If the paper needs the figure, it also needs some description.
4) I particularly liked the discussion section.
5) My main concern is that this paper, in its current version, is very specific, and do not address a question of wide interest for the solid Earth community. I’d encourage the authors to reformulate the introduction and implications to make it more appealing to the larger SE audience. This could be done e.g. by rethinking the implications, addressing the numerical problem in more detail, or a combination of them.

Interactive comment on Solid Earth Discuss., 5, 391, 2013.