Hi Bin,

I am done with the first review of the manuscript. I skipped the appendix and the formula, I will work on them later to find typo errors. Anyway, the derivations seem perfect. Now, there are some critical issues we should discuss. In order:

1. the fluid volumetric budget equation is in m^3/s, and, as I mentioned before, the left-hand side term is not physically consistent unless you introduce, instead of k in m^2, a fracture intrinsic transmissivity t in m^3 or multiply by the aperture (please thoroughly check if I am right)
2. Given point 1, in all the examples you should specify both k and the aperture (i would call it e, not h, this last one is conventionally used for the hydraulic head), or, alternatively, this t I introduce above and in the notes I sent you days ago; in the last example you mention e for all the fractures, and the Lomize formula to define k, this should be done for all the examples (anyway, ke is the intrinsic transmissivity t). I understand that you used a pdf for e to generate the k values. My question is: which parameters did you utilize in the simulations?
3. in the fluid volumetric budget, q\_t is in m^2/s I suppose (multiplied by the length of the line source you get m^3/s) and it is a specific discharge (cubic meters crossing an aperture of unit width in unit time); the derivative of p (pressure) is not a q, it is only the flux of p, so in the BIEs I would put (dp/dn) to avoid confusion. Please check what u represents, is it in m/s? (otherwise you could not call it a velocity); however, the velocity is significant only in view of a transport analysis. Please, for all this, read my small notes and our last paper in JOH, I think we should be consistent. No problem to expand the initial part in order to avoid confusion
4. please, decide if we deal with a method or an algorithm. I think you have defined a novel BE method (and you can use this locution throughout all the text), whereas I would leave algorithm for the DDM (a DDM algorithm)
5. please specify the FEM code used for the comparisons; however, I think there is the need to compare your results also with the results offered by the code of Berrone et Alii, it sounds more logical.
6. one problem is the weak convergence of the DDM algorithm; probably, there is the chance to improve it without struggling that much;
7. comparing BEM with FEM is a delicate issue; of course, with BEM, through the reduction of dimensionality of the problem you reduce the amount of discretization and focus on the relevant quantities only (those at the boundaries or at the sources); you gain precision, but take into account that you don't necessarily gain time; in this case, the weak convergence of DDM is a problem, one may say that there is no point in reducing the amount of discretization if you waste time in solving the system. Consider also the other limitations of BEM, the most restrictive is that BEM cannot deal with heterogeneities. You don't have to boast that much that your work is good, it is good because is an excellent work and provides the ingredients for an alternative tool
8. finally, the apertures (or the transmissivity) are not variable in your method, you use homogeneous values within a fracture, so your statement is not right

Please, accept or reject all the revisions. I hope now my colleagues can give an additional feedback. Specifically, there is the need to provide a more elegant formulation for the first equation. I don't think we can introduce linear or punctual sources that way (for example, punctual sources require the Dirac function). Other rounds of revision are required, anyway.