

Interactive comment on “Bayesian full-waveform inversion of tube waves to estimate fracture aperture and compliance” by Jürg Hunziker et al.

Anonymous Referee #1

Received and published: 5 January 2020

The paper is interesting and generally well written. The authors present a method to successfully estimate fractures apertures and compliances using Bayesian Full Waveform Inversion of VSP tube-wave data. However, since the method can not clearly discriminate between the aperture of fractures that are relatively close to each other, do the authors think that the method could be successfully applied in complex geological settings such as in carbonates that are usually characterized by the presence of several fractures?

Minor corrections:

Figure 1; please consider improving the resolution so that the different phases can be followed easily.

C1

Page 6 Line 135: remove "thus".

Page 6 Line 158: "A time-gated version of...." please specify the window size.

Page 8 Line 175: change " We have run" to we ran.

Page 9 Line 193: Please consider changing "might explain the data well too" to "might equally explain the data".

Page 14 Line 300: " ... and the second fracture as small one..." replace as with a.

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2019-183>, 2019.

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