

Interactive comment on “An automated fracture trace detection technique using the complex shearlet transform” by Rahul Prabhakaran et al.

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Author’s Response The authors would like to thank the Dr. Gauthier for his comments. Please see the attached text file that details the reply to specific suggestions and modifications made. The marked down manuscript created using latexdiff highlights the changes made. Since a significant number of comments were related to the figures, we summarize the changes made to the figures.

Figures that are modified:

Figure 1 (in old manuscript): Inserted as an appendix figure. Referenced within the text of the Appendix. (In the marked down manuscript, referred to as Fig.A1)

Figure 4 (in old manuscript: Moved to the appendix. Referenced within Section

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3.2 where the parameter selection procedure is explained. (In the marked down manuscript, referred to as Fig.A3)

Figure 8 (in old manuscript): The map behind the Parmelan P21 plots in Fig.8(b) is removed and the colorbar scaling has been modified. (In the marked down manuscript, referred to as Fig.7)

Figure 9 (in old manuscript): The colorbar scaling has been modified for the Parmelan manual and automatic interpretations. Rose plots and cumulative frequency plots are added. (In the marked down manuscript, referred to as Fig.8)

Figure 10 (in old manuscript): The colorbar scaling has been modified for the Brejoes P21 plots. (In the marked down manuscript, referred to as Fig.9)

Figure 11 (in old manuscript): The caption has been modified to properly indicate which is manual and automatic. Trace color changed from red to white for better visualization. (In the marked down manuscript, referred to as Fig.10)

Figure 12 (in old manuscript): Assisted trace interpretation results from the original paper of Thiele et al, 2017 has been added for comparison. Rose plots and cumulative length distributions added. (In the marked down manuscript, referred to as Fig.12)

Figure 13 (in old manuscript): Assisted trace interpretation results from the original paper of Thiele et al, 2017 has been added for comparison. Rose plots and cumulative length distributions added. (In the marked down manuscript, referred to as Fig.13)

Figures that have been newly added:

Figure 2 (in marked down manuscript): Depiction of ridge extraction results that vary depending upon parameter changes. This is applied to a very simple fractured sandstone image

Figure 11 has been inserted that depicts rose plots and cumulative frequency distributions for all the stations

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Please also note the supplement to this comment:

<https://www.solid-earth-discuss.net/se-2019-104/se-2019-104-AC3-supplement.pdf>

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2019-104>, 2019.

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