Nonlinear Processes
in Geophysics
Discussions

NPGD

Interactive
comment

Interactive comment on "Time difference of arrival estimation of microseismic signals based on alpha-stable distribution" *by* Rui-Sheng Jia et al.

Anonymous Referee #2

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Here are some suggestions, I wish these suggestions are useful to you. 1.The number of Eq.(7) is not aligned 2.Your innovation is not highlighted in the theoretical parts. 3.In step2 of 3.3, 0.95 should be introduced. 4.In experiment 1, the definition and formulas of GSNR should be introduced. 5.In Fig3(a), the energy of P wave is larger than the energy of S wave. But in most field microseismic data, the energy of S wave is larger than the energy of P wave, so I think your measured microseismic signal is not representative. 6.In Fig6, your method is just compared with one conventional method. I think this is not enough, your method should be compared with two conventional methods at least so that the advantages of your method are more persuasive. 7.In experimental part, your method is not tested by field microseismic data, you should add actual experiment in this paper. 8.Three components of microseismic signals should

be added in your paper. 9.In experimental part, the value of the GSNR is only one , I think you should change the value of GSNR and do more experiments. This can verify whether your method will be affected by the energy of the noises.

Interactive comment on Nonlin. Processes Geophys. Discuss., https://doi.org/10.5194/npg-2017-49, 2017.