

## ***Interactive comment on “Site effect classification based on microtremor data analysis using concentration–area fractal model” by A. Adib et al.***

**A. Adib et al.**

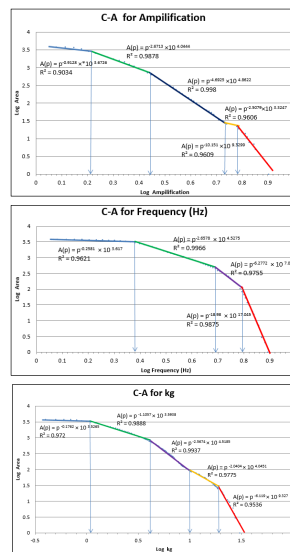
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Received and published: 7 October 2014

Dear Sir, Based on the reviewer comment, We add descriptions about multifractal natures of my parameters in the area. Fig. 7 is edited and power-law relationships with R2 are added to the log-log plots for showing of multifractal nature of the data.

Interactive comment on Nonlin. Processes Geophys. Discuss., 1, 1133, 2014.

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**Fig. 1.** Fig.7:

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1 According to the C-A log-log plots, four populations were distinguished for  
2 frequency and five populations for amplification and  $K-g$  reveals multifractal nature for  
3 the parameters in the Meybod city, as depicted in Fig 7. There are multifractal natures for  
4 frequency, amplification and  $K-g$  based on the more than two straight segments. The  
5 straight segments fitted lines were derived based on least-square regression (Agterberg et  
6 al., 1996; Spalla et al., 2010). All R-squared values are higher than 0.9 and most of them  
7 have  $R^2$  higher than 0.95 which is show a proper correlation (Fig. 7). The power-law  
8 relationships between the geophysical parameters and their occupied areas were indicated  
9 in the Fig. 7. According to the Eq. 2, there is different values for  $\alpha$  which is exponent  
10 equal to fractal dimensions, as depicted in Fig. 7. The variation of fractal dimensions  
11 reveals a multifractal nature for frequency, amplification and  $K-g$  in the area. Data  
12 distribution based on C-A model has been shown in Fig 8. The sites with high intensity  
13 values of frequency are situated in the central parts of the area and the sites with high  
14 intensive amplification and  $K-g$  are located in the northern and eastern parts of the  
15 Meybod city.

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**Fig. 2.** Comment

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