

Interactive comment on “Complex networks description of ionosphere” by Shikun Lu et al.

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Thanks very much for the positive comments and constructive suggestions, which are helpful to improve the quality of the manuscript.

1 Thanks for the helpful advice. The curve of distribution fitting by Kernel smoothing method has been added in the Figure (as is shown in the following) to show the distribution intuitively.

2 As introduced in subsection 3.3, the small-world structure is caused by the long-range edges. The long-range edges make the complex network stable and efficient in information transmission. For example, a disturbance is generated somewhere in the complex network. However, the small world structure of the network allows the system to respond quickly and coherently to variations introduced into it. This mechanism about information transmission diffuses local variations thereby reducing the possibil-

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ity of prolonged local anomalies and providing more stability for the system. Thus, chances of major shifts are reduced.

3 Thanks for the advice. After comprehensive thinking, the subtitle of 2.2 and 3.2 have been replaced with "Mapping the data to a complex network" and "Joint distribution of the edge spans". We will learn more about the application about the complex and make an overall revision which will be shown in the revised manuscript.

Interactive comment on Nonlin. Processes Geophys. Discuss., <https://doi.org/10.5194/npg-2017-29>, 2017.

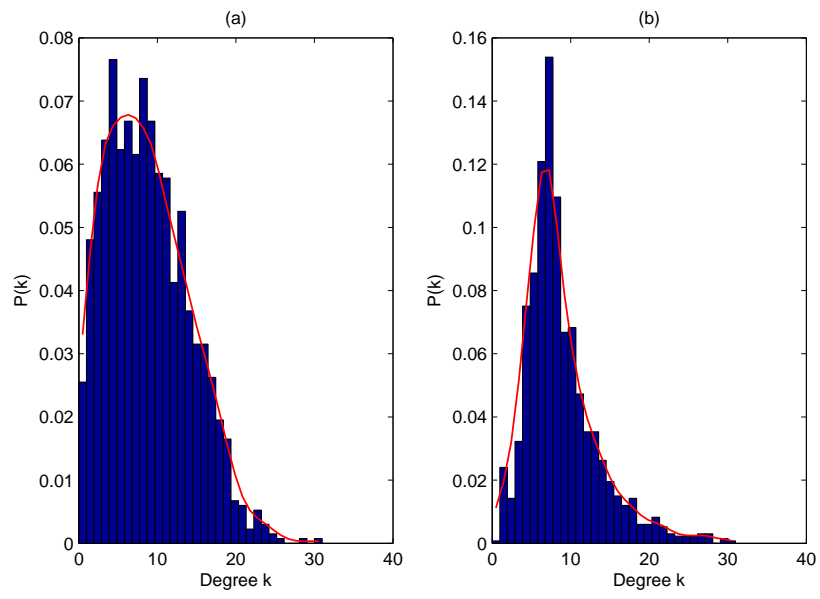


Fig. 1.