Earth Syst. Dynam. Discuss.,
doi:10.5194/esd-2017-27-RC1, 2017

Earth System Dynamics Discussions

Interactive comment on "Fractal Scaling Analysis of Groundwater Dynamics in Confined Aquifers" *by* Tongbi Tu et al.

Anonymous Referee #1

Received and published: 29 April 2017

This manuscript analyzed fractal scaling of groundwater dynamics in confined aquifers and presented important stochastic characteristics of the groundwater. This kind of stochastic analysis is very important to understand the hydrological processes of the groundwater and to improver generalized governing equations of groundwater flow processes. I strongly recommend the manuscript be published in the Journal to share the stochastic properties of the groundwater with the other readers for better understanding of groundwater flow processes in Hydrology. However, minor questions written in below should be considered to revise the manuscript before publication.

1. Well1 and Well2

Why did the authors select these two wells? Please explain how you selected these two wells. Also, please explain the relationship and geophysical and hydrological char-

acteristics of these two wells more clearly. For example, are these two wells located in the same river basin? What is the distance from Well1 to Well2? As such, more detailed explanation should be specified for these two wells. Table 1 presents some information but it is not enough for the readers.

2. The number of wells selected in this study

Why did the authors focus only two wells? I believe there are many wells those provide long period of ground water data. As the authors mentioned, the results presented in the manuscript are site-specific. In that case, it would be much better to explain why only two wells were focused and analyzed in the manuscript.

Interactive comment on Earth Syst. Dynam. Discuss., doi:10.5194/esd-2017-27, 2017.