Nonlinear Processes
in Geophysics

Open Access

EGU

Discussions

Interactive comment on "Fractal behavior of soil water storage at multiple depths" *by* Wenjun Ji et al.

Anonymous Referee #2

Received and published: 16 March 2016

This work makes use of multifractal analysis and joint multifractal analysis to study the spatio-temporal behavior of soil water storage (SWW) at multiple depths. Several interested implications about the scaling nature of SWW that are relevant to transfer information from one scale to another, are shown.

The manuscript is well structured and conclusions are drawn from sound mathematical theories applied to a rich enough database consistent with the algorithms used to estimate theoretical parameters. Therefore, I recommend acceptance following minor revisions. My specific comments are itemized below:

page 6, line 163 and page 6, line 167: I suggest to use Chhabra and Jensen (1989) as a reference instead of Everest and Mandelbrot (1992).

page 7, line 197 and page 17, line 478: This parameter was first introduced in Caniego,

Martín and San José (2003)

page 14, line 384: There are two points instead of one to the end of the line.

Reference: Caniego, F.J., Martín, M.A. and San José, F., 2003. Rényi dimensions of soil pore size distribution. Geoderma 112 (2003) 205– 216.

———————————————