

## ***Interactive comment on “Modeling geophysical complexity: a case for geometric determinism” by C. E. Puente and B. Sivakumar***

### **Anonymous Referee #1**

Received and published: 18 July 2006

### **Comments to Authors**

Fractal and multifractal based interpolations and extrapolations have offered several advantageous to model several geophysical dynamics. Authors provide a concise review of certain focussed literature that is evidently addressing modelling and characterisation of time series data of hydrological relevance. Authors' contribution to this topic is obvious since early 1990s. Hence, this article – correctly written, well structured with clarity and understanding, with free of any grammatical and spelling mistakes – reviewed previous cited works that occupied more than 50% of the authors' works alone. How this existing literature prompts researchers to aim at geometric procedures to model complex geophysical data is lucidly explained. Whole set of developments in the field of modelling geophysical complexity is very well explained chronologically with

reference to two Figures.

During the years to come, I also anticipate the success of “Pattern Spectrum” approach (which is popular in digital image processing/analysis contexts) in the context of characterisation of geophysical complexities. Such an approach captures the shape-size based complexity of both functions, and sets that could be decomposed from functions.

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 3, 1407, 2006.

**HESSD**

3, S482–S483, 2006

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