

## ***Interactive comment on “Fractal analysis of urban catchments and their representation in semi-distributed models: imperviousness and sewer system” by Auguste Gires et al.***

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The article is well written and provides a very comprehensive fractal analysis framework of urban catchments and their representation in semi-distributed models.

The idea to use a simple scaling analysis in this hydrological field is very interesting, also for the use of a fixed size algorithm procedure to find the fractal dimension as a geometric descriptor. In any case, I invite the authors also to provide some additional items about the choice of a simple scaling analysis respect to a multifractal (or multi-scaling) analysis. Many recent studies show a multifractal behavior of river networks at large and small scales. Authors can motivate this choice? I suppose that, in the framework of this investigation, the data set type used is very important for the defin-

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ion, for example, of the fractal dimension of buildings and also for other sub-catchment partitions of the hydrological measures. Overall, I think that the manuscript is worthy of being published in Hess.

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