

## ***Interactive comment on “A measure of watershed nonlinearity: interpreting a variable instantaneous unit hydrograph model on two vastly different sized –watersheds” by J. Y. Ding***

**J. Y. Ding**

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### **Acknowledgment of comments by Referees and publication of the revised Figure 1**

The author thanks Anonymous Referees # 2, 3, 4 and Referee Sivakumar for their thorough review of and thoughtful comments on his paper. The paper under review is essentially an unfinished manuscript because of the mixed-up in the conversion of the scale parameter ( $c$  and  $C_h$ ) from one time unit to another, for which he apologizes.

The application of the variable IUH shape factor method to the Minshall unit hydrograph data on the Edwardsville catchment represents a new contribution by the author. Since it attracts much criticism from the Referees and becomes the most contentious

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part of the paper, the author is preparing a longer note to respond to comments on this topic, which also will address other fundamental issues raised by some Referees. Other separate notes will respond to specific or minor comments raised by individual Referees.

The author takes this opportunity to publish a revised Figure 1 showing the corrected  $C_h$  values. An extra line has been added to the caption to indicate the methods by which the parameters are calibrated. The revised figure shows much better calibrated results for  $C_h$ , especially for the four moderate storms as a group.

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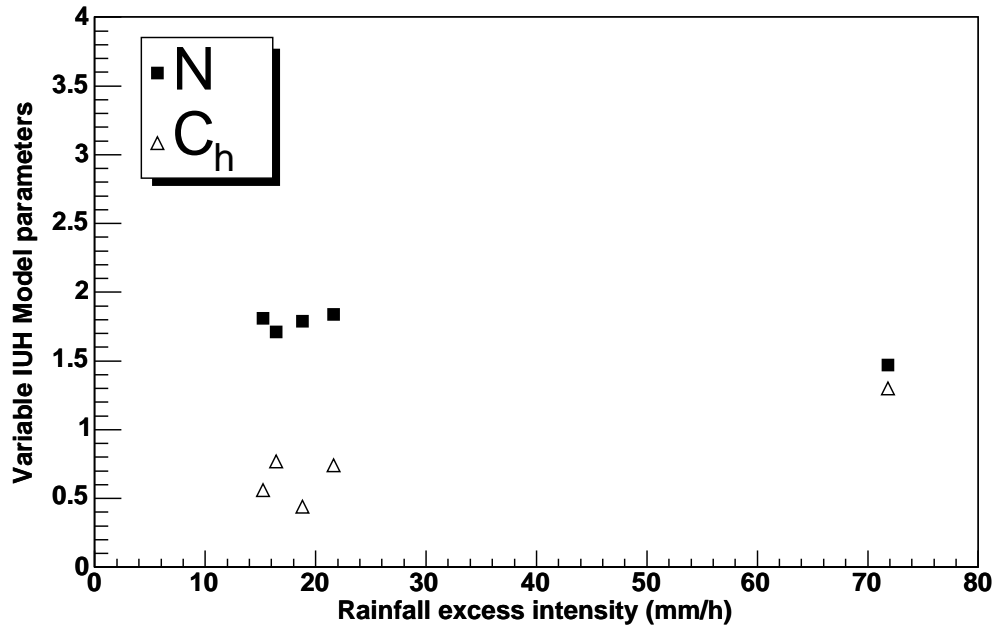


Figure 1: (Revised). Variations of the variable IUH model parameters with the rainfall excess intensity for the Edwardsville catchment. Parameter  $N$  values calibrated by the variable IUH shape factor method, and  $C_h$  by the unit peak flow equation.

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