

Interactive comment on “Assessment of structural sediment connectivity within catchments: insights from graph theory” by Étienne Cossart and Mathieu Fressard

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Dear Mr. Schmitt,

Thank you for your interest in the paper and your last comment.

Regarding your first question; yes, we agree that the IC index aims at spatially reproducing the (dis)organization of the system at the catchment scale.

We consider here building the basis of a more complex analysis that would integrate sediment and water fluxes in the catchment. We plan also to work on the application/validation of it through practical cases studies. Additionally, the discussion of the manuscript is now raising the potential improvements of the approach.

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Regarding your last question, we also think that the partial (dis)connections can be assessed in this framework, but we still have to develop the methodological (both conceptual and practical) tools to integrate/analyze it. Therefore, we guess that it is beyond the scope of the paper, but it will consist in the next research steps in graph theory analysis to us. We hope we could find an opportunity to meet and discuss more deeply these questions in the future.

Best regards,

Etienne Cossart and Mathieu Fressard

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