

## Authors' comments on the revised manuscript

July 20, 2015

Dear Editor,

Many thanks to Dr. C. Staudt for the insightful comments and suggestions. We have addressed his suggestions in point 1 regarding the scalability limitation of NetworKit (omitted) and the size of Fig. 5 (enlarged) in the revised manuscript.

Additionally concerning the suggestion to provide experimental comparison between Par@Graph and existing software tools, we agree that such study would have added more to the paper, indeed. However, a complete comparison should aim at analysing existing software performance for various types of networks (not only correlation climate networks), various topologies, densities and sizes, not to mention the consideration of the parallel hardware. We therefore believe this must be addressed in a separate work and that is outside the scope of this paper.

Finally, on the issues raised in point 3, we agree that statistical methods that give good approximate results are a practical alternative to analyse complex problems, therefore we will discuss this further conjointly with an extensive analysis on Par@Graph's performance (and limits) in a future work.

On the single or global threshold selection, it is no doubt a valid argument that a single threshold might not be appropriate to discover significant statistical similarities in a global domain. However, it is up to the researcher based on his hypothesis, sensitivity studies, etc. to choose a value for the threshold to apply. Par@Graph, as a software, is not aimed at being part of the validity of a user's choice of threshold. On the other hand, a variable threshold is directly and technically possible to implement in Par@Graph. In which case multiple thresholds could be considered to define links between nodes based on, e.g. their location, distance, and so on.

Best regards,  
Authors.