

# Détection de communautés, étude comparative sur graphes reels

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## **Abstract**

Several community detection algorithms have been proposed in last years. Usually, the evaluation of these algorithms consist in identifying communities in generated graphs, not necessarily realistic. In this paper, we try to compare their results on large real world graphs. As we don't know the correct decomposition in communities of large real graph, we first compare results of the different algorithms between them, and then the robustness of their results when graphs are rewired. This allow us to conclude that, on one hand, communities of real graphs are harder to detect than the ones of generated graphs and, on the other hand, current state of the art algorithms did not converge on a unique solution, unlike what happen on generated graphs.

**Key-words:** Community detection, complex networks, evaluation