

## Review of: "Determining Affinity of Social Network using Graph Semirings"

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Potential competing interests: No potential competing interests to declare.

This paper proposes an algorithm for determining the stability or affinity of connections between different social groups within a complex social network, using Facebook as an example. The algorithm uses graph theory and semiring operations to decompose the network into components and measure their connectivity and importance. The paper also provides a geometrical interpretation of the algorithm and its application to friend recommendation. However, the paper has some major drawbacks:

- 1) The paper lacks a clear motivation and contribution statement. It is not clear what is the research problem that the paper aims to solve, and how the proposed algorithm is novel or useful compared to existing methods.
- 2) The description of the designed algorithm is ambiguous and difficult to understand. It is suggested that the author use professional computer language to describe the algorithm.
- 3) The paper does not provide any theoretical analysis or empirical evaluation of the algorithm. The paper should provide some proofs, examples, simulations, experiments, or comparisons to support the validity and effectiveness of the algorithm.
- 4) The paper does not follow a standard structure and format for a scientific paper. It is missing some essential sections such as literature review, methodology, results, discussion, conclusion.
- 5) The paper does not explain some key concepts and terms clearly. For example, what is a graph semiring? What is a beta index? What is a path energy? How are they defined and calculated? The paper should provide clear definitions and formulas for these concepts and terms, and cite relevant sources if necessary.

Given the above defects, it is inappropriate for publication.