

Peer Review

Review of: "Stability and Synchronization of Kuramoto Oscillators"

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I would suggest a very, very careful revision, adding definitions, notations, and rigorous proofs and justifications of the results before publishing.

- Some sentences have to be rewritten since they are not understandable. E.g., in the introduction, this sentence: But how high does a coupling constant do we need? has to be restated.
- The description of the order parameter has to be rewritten, putting commas, dots, and stating sentences in a correct way.
- The picture of the evolution of $r(t)$ should be justified in some way: why is the evolution like this? It is not proved at all. Please add some details and, in case, some references. Why $K_c > 0$?
- Give some reference or some details for the properties of the incidence matrix. Explain the relation with the Kuramoto system. It has not been defined that the Kuramoto system is on a graph.
- Result 1: it is quite obvious; please remove it and add a more clear justification of the simplification of the model by eliminating the natural frequencies.
- Result 2: state the result in a rigorous way, adding also the definitions. What is the rate of approach? Why 2 different proofs?
- Section 2.3 contains statements and results referred to quantities that have not been defined, so it is completely incoherent.

Declarations

Potential competing interests: No potential competing interests to declare.