

# Review of: "Time evolution and convergence of simple migration models"

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Potential competing interests: No potential competing interests to declare.

This study presents a numerical investigation of migration networks based on gravity and radiation models. Remarks:

- The observations and conclusions of the author are mostly based on numerical simulations, e.g. the steady state Gaussian population distribution in simplistic scenarios. Such affirmations need further theoretical analysis.
- According to Figs. 2 and 7 the author applies planar graphs as the underlying graph of the migration network. This is a quite strong assumption. In the case of human migration, the migration networks have more complicated structures.
- Some affirmations of the study are quite speculative, e.g. "We assume that those positive eigenvalues are caused by the fact, that we use some approximation and we do not have the analytically exact steady state". Here, further investigations are necessary.
- There are some inaccuracies from the demography perspective as well. E.g. Introduction section, first paragraph: "these mathematical models are able to make migration projections for several decades". This cannot be true for the case of involuntary (forced) migration.
- The quality of the presentation needs improvement. Some examples: last paragraph of the introduction section (Citations); The gap between the paragraphs in page 4; notations in Fig. 1:  $p_i/p_j$  instead of  $m_i/m_j$ .

However, the performed numerical analysis could give some good hints for further migration network-related research.