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

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Potential competing interests: No potential competing interests to declare.

This paper is interesting and very useful to start thinking about the modeling and setting in describing the migration (the expected tendency in the final outcomes.) Beginning with simple cases, authors present some extensions while it seems many more extensions have not been studied yet and to come in the future.

It has successfully described not just the variations in models but also the ones in outcomes depending on the settings.

Some minor comments:

1. The author writes “the Gravity model uses the distance as a direct variable with migration flows being inversely proportional to the distance,” but later the denominator is more generally defined as dij ^ gamma. Any different expression in the sentence would be preferred.
2. As has been already noted by other reviewers, “Fig. 2” in II. A. should be “Fig. 1.”
3. The Gravity model has been originally mi * mj / dij ^ 2 when it is actually used to describe the physical gravity. In most applications, alfa = beta is still assumed. The case in which alfa > (or <) beta is some particular application and equation (2) in this paper directly follows from the specification the researchers make, intendedly or unintendedly. The analysis in II. A. is interesting but it should be noted that alfa > (or <) beta is some purposeful (can be tautological) setting by its nature.
4. As noted above, the Gravity model is generalized and has exponential parameters in this paper but the Radiation model does not. Why the author has not considered generalizations such as mi ^ alfa or mj ^ beta to be consistently compared to the Gravity case? Is it also possible to obtain a “larger cities to smaller cities” result by changing those parameters?
5. In the Radiation model, if the area has a vacant place such as a big lake or mountain in the middle, what happens? Just for a curiosity.