

## **Review Kruse et al. : Implementing spatially explicit wind-driven seed and pollen dispersal in the individual-based larch simulation model: LAVESI-WIND 1.0**

My comments have been addressed. Some of the changes result in inconsistencies in the formulation. I've tried to mention them, but the authors should check their text again.

My remaining minor comments

44: In Epstein 2007 the FLM TreeMig has been applied on a 2200 km transect from boreal to arctic conditions in Central Siberia, not exactly a small area. Forest landscape models are indeed what you seem to aim for in your outlook part in the discussion. So I would rather stress the novelty of including wind and pollen into such models.

78-86: Mention the importance of pollen modelling, and smooth the transition to the follow-up sentence. ("Besides---traits")

130: is randomly determined according to this probability

147: pollination probability, omit mathematical form

148: Just to make sure:  $p$  is the probability that a pollen donor standing in distance  $r$  to the mother tree is the father? If so, write probability  $p$  in line 129. Or is this probability normalized by the sum of the probabilities of all father trees?

211: does climate only influence tree growth or also survival and establishment (which are much more important)?

264: parametrisation

309: hand over? Unclear. I guess you distribute different tree individuals to different CPUs?

405-407: How can the simulation of a single species help to overcome the difficulties introduced by lumping several species into one artificial PFT??? Either explain or omit.

413-415: But how? You would still have the problem of intra-grid migration and the discretization error by the large grid cells. Have a look on the newest migration upscaling modelling approaches, which keep a fine resolution for the dispersal and simulate the local dynamics only in selected cells, e.g. Nabel 2015, and in particular Lehsten et al. 2018, GMD, *Simulating migration in dynamic vegetation models efficiently with LPJ-GM*,