

1. Does the paper address relevant scientific modeling questions within the scope of GMD? Does the paper present a model, advances in modeling science or a modeling protocol that is suitable for addressing relevant scientific questions within the scope of EGU?

This paper showed radial diffusion model used in SpacePy which is integrated data analysis and simulation toolkit for Python. I suppose that the scope of this paper meets that of GMD.

2. Does the paper present novel concepts, ideas, tools, or data?

This paper showed the details of simulation tool in SpacePy.

3. Does the paper represent a sufficiently substantial advance in modeling science?

The numerical scheme for the diffusion calculation (Crank-Nicolson) has been used as a standard technique. However, "MMS" is not familiar with general modelers. More detail explanation would be good for the readers.

4. Are the methods and assumptions valid and clearly outlined?

The methods/assumptions are clearly mentioned.

5. Are the results sufficient to support the interpretations and conclusions?

Yes, the results are sufficient to support conclusions.

6. Is the description sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)? In the case of model description papers, it should in theory be possible for an independent scientist to construct a model that, while not necessarily numerically identical, will produce scientifically equivalent results. Model development papers should be similarly reproducible. For MIP and benchmarking papers it should be possible for the protocol to be precisely reproduced for an independent model. Descriptions of numerical advances should be precisely reproducible.

The authors showed code performance that includes the simulation speed with the modern Intel CPU, which are useful for other modelers as well as code users.

7. Do the authors give proper credit to related work and clearly indicate their own new/original contribution?

The authors cited proper references.

8. Does the title clearly reflect the contents of the paper? The model name and number should be included in papers that deal with only one model.

Yes.

9. Does the abstract provide a concise and complete summary?

Yes.

10. Is the overall presentation well structured and clear?

Yes.

11. Is the language fluent and precise?

Yes.

12. Are mathematical formulae, symbols, abbreviations, and units correctly defined and used?

Yes.

13. Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated?

Yes.

14. Are the number and quality of references appropriate?

Yes.

15. Is the amount and quality of supplementary material appropriate?

Yes.