Review of: "Slow diffusion around pulsar -ray halos and its impact on cosmic rays propagation"

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The article argues that the ballistic-diffusive model alone cannot adequately explain the gamma-ray halo profile. A slow diffusion region around the pulsar is necessary to account for the surrounding -ray halos and slow diffusion has an important impact on cosmic ray propagation.

1. The fitting results to the HAWC data show that slow diffusion is necessary to account for the pulsar -ray halos.
2. The two-zone diffusion model is studied in the pulsar scenario accounting for the positron spectrum on the Earth to investigate the impact of the slow diffusion on cosmic ray propagation.
3. The slow-disk diffusion model in the dark matter scenario reexamine to find that it satisfies all the -ray limits in the new propagation model.

The article is well written and is worth to be published. I have a minor suggestion: It would be much better if the author provides some critical definitions, basic formulas and background knowledge, such as slow diffusion models, diffusion coefficient, transfer efficiency and so on. This would greatly help the readers to comprehend the physical background of the article.