



EGUsphere, referee comment RC2
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Comment on egusphere-2022-420

Anonymous Referee #2

Referee comment on "Spatial filtering in a 6D hybrid-Vlasov scheme to alleviate adaptive mesh refinement artifacts: a case study with Vlasiator (versions 5.0, 5.1, and 5.2.1)" by Konstantinos Papadakis et al., EGU sphere,
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This paper designs some kernels to filter the staircase effects arising from AMR, which is innovative. The authors carefully examine the mass conservation and computational overhead. Great work!

We encourage the authors to check WarpX's work (<https://warpX.readthedocs.io/en/21.02/theory/amr.html>) to see if any techniques related to the absorbing layers can be utilized. Also, moving the codes to the GPU architecture is another trend.