

Review of: "Horizon and curvature"

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Potential competing interests: No potential competing interests to declare.

It is an interesting experience reviewing such a publication. By the time I've got to posting this review, some of my points have already been addressed! The paper deals with an original question, using essentially elementary methods, and it was fun to read. Below is a list of suggestions which may improve it:

- This is a minor typo "and the disk , intersection of the planet". I suggest adding "the" before intersection.
- Another minor one "from an airplane, when If". Either "when" or "if" should be removed. Probably better to remove "when".
- Remark 4.2 makes a false statement. A simple counterexample is given here:
<https://math.stackexchange.com/a/2693465>
- I believe that proposition 5.1 is confusing as stated: First, why is the inequality stated in terms of $2H_0$? After all, H_0 is arbitrary. Second, it seems that any convex polygon (with smoothed corners, if one insists on C^∞ regions) of a sufficiently small size would constitute a proof. After all, one can reduce the size of H simply by rescaling the region.
- Unless I'm missing something, it seems that a sufficiently small disk would give the proof for proposition 5.2.
- Theorem 6.1 follows at once from the local canonical form of curves (see e.g. section 1-6 in Do Carmo's "Differential Geometry of Curves and Surfaces"). Also, I'm not sure why (6.1) should be stated separately as it follows at once from (6.2).