

Review of: "Horizon and curvature"

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Potential competing interests: No potential competing interests to declare.

In my opinion, the article is well-written and interesting. I would like to contribute as a reviewer with some comments around Proposition 4.1. It seems to me that the final part of the proof is unnecessary. I would like to point out that \$\mathbb R^3\$ appears in the statement, whereas it should be \$\mathbb R^2\$. Additionally, in the proof, there is a missing exponent of \$2\$ for the derivative of \$y\$ in the first displayed inequality. Regarding Remark 4.2, it is clearly not possible for the result to still hold if the curve has self-intersections (an infinite trochoid is a counterexample). Remark 4.3 essentially corresponds to the Bonnet-Myers theorem (using sectional curvature).

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