

White Holes Are Just Paper Noise ^[1]

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This [Medium.com Starts With A Bang! article ^[2] by Ethan Siegel] is an interesting and beautifully done analysis [of the history of the “white hole” concept, that is, of the hypothesis that matter falling towards a black hole ends up transported to another location in this or a different universe], but the math says white holes can’t exist since nothing can enter a black hole. [As you fall towards a black hole’s event horizon,] escalating time dilation plus Hawking radiation evaporates the hole within seconds or minutes of your time as you head smoothly toward it at uniform velocity. [If you cannot fall in, you cannot be transported to a new location.]

This is not a distortion of the math; it is simply what the math says ^[3]. The non-math part is decades of papers that assume, mostly without a moment’s thought, that neither time dilation nor Hawking radiation apply while moving smoothly and uniformly toward an event horizon.

White holes are just paper noise.

References

- [1] First posted as: <https://medium.com/@terrybollinger/this-is-an-interesting-and-beautifully-done-analysis-but-the-math-says-white-holes-cant-exist-64847587064e>
- [2] E. Siegel, *Ask Ethan: What are white holes, and do they really exist?* (Medium.com member-only story). Starts With A Bang! **2023**, 0210 [Feb 10] (2023). <https://medium.com/starts-with-a-bang/ask-ethan-what-are-white-holes-and-do-they-really-exist-81f5c194e9b>
- [3] T. Bollinger, *Falling Into a Black Hole: Five Even Odder Effects*, Apabistia Notes **2022**, 10032230 [Oct 3] (2022). <https://sarxiv.org/apa.2022-10-03.2230.pdf>

