White Holes

By Clark M. Thomas

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Abstract

Black holes and white holes are typically seen as joined by wormholes linking string universes. String theory has not harmonized 4D GR with its visions of 10⁵⁰⁰ 2D universes. Black holes with various core masses have been characterized by physics math. White holes have conversely been modeled by pure math, because there is no physical data for any white holes. GR math allows for white holes, so some mathematicians continue to explore their imagined 2D multiverse. We here consider black/white hole pairings, and show how physics math models are not very close to what really is.

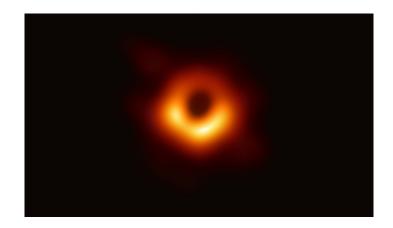
Corrected paradigms and antique paradigms often share some key data and models. A dialectically emerging new paradigm is often the eventual outcome. This essay contributes to a modest portion of the essential 21st-century upgrading task.

Whereas most *Wikipedia* articles are good, every now and then a very excellent one appears. Wikipedia's White Hole **[1]** is very *worthy of your clicking now on this link.* Understanding details in that article helps frame the overall thesis herein. Below is this *Wikipedia* article's introduction:

"In general relativity, a white hole is a hypothetical region of spacetime and singularity that cannot be entered from the outside, although energy-matter, light and information can escape from it. In this sense, it is the reverse of a black hole, from which energy-matter, light and information cannot escape. White holes appear in the theory of eternal black holes. In addition to a black hole region in the future, such a solution of the Einstein field equations has a white hole region in its past.^[1] This region does not exist for black holes that have formed through gravitational collapse, however, nor are there any observed physical processes through which a white hole could be formed. (SMBHs) are theoretically predicted to be at the center of every galaxy and may be essential for their formation. Stephen Hawking^[2] and others have proposed that these supermassive black holes could spawn supermassive white holes.^[3]"

A companion article in Wikipedia **[2]** advances the possible relationships among black holes, white holes, and their wormhole links. Therein is presented a GR discussion of how black holes and white holes have been modeled as linked by wormholes.

In 2019 the global *Event Horizon Telescope* array was directed to explore the supermassive black hole event horizon in Virgo's M87, itself a supermassive elliptical galaxy.**[3]** When this first image below of the magnetic fields around M87's black hole was revealed major science was achieved. Here is that first image:



The supermassive, assumed wormhole-generating object in M87 – M87* – has evidently not generated wormholes leading to white holes and additional 2D string universes. Consider that M87's supermassive black hole is about 1,000 times more massive than our Milky Way galaxy's lesser supermassive black hole, Sgr A*. Nevertheless, no clear wormhole data has ever been discovered toward any white hole. Analysis of M87's magnetic fields about 54 million light years away has revealed nothing having to do with white hole wormholes, despite what GR math alone may allow.

Similarly, the first image in 2022 of Sgr A*, the "less-massive supermassive" black-hole event horizon in our Milky Way galaxy's core, 26,670 light years away, has revealed no connection to any hypothetical wormhole or white hole.[4]

Therefore, it is fair to ask just where are all those theorized 10^500 linked 2D string universes?[5] The layperson may not initially recognize the power of exponents – but simply meditate on how there are "only" about **10^75** *hydrogen atoms* in our entire local visible universe – and that each incremental exponent magnifies the previous quantity ten times. For example, a logarithmic math number of 10^76 is ten times as large as 10^75. So how do we physically get to 10^500 entire universes, short of psychedelic 2D pure math?[6]

The psychedelic hypothesis of white holes, and black holes with holograms inside their event horizons, doesn't need another nail in its burial box, but here it is anyway:

The top allure of Einstein's General Relativity is strangely in its naked maths without full explanation. GR is like a box full of toys with fuzzy rules for each and all. Assuming one local and relative inertial perspective can support all possible brane perspectives is a fundamental error. This delusion poisons the very idea of white holes and black holes linked by such as Einstein-Rosen wormhole bridges.[7] The perspective of our initial Big Bang that created our local visible universe is *not universal*, for three reasons: FIRST: Our local, visible universe is one bubble in the as-if "quantum bubble bath" of the 4D multiverse of interpenetrating local 4D universes. Inter-universal flows of yin/yang "dark" particles and "dark" short strings within the overall quantum sea are thereby *omnidirectional*.

SECOND: Our **outgoing** Big Bang has one omnidirectional vector focus for incoming gravity brane slopes from all multiversal directions. Our BB local history is how growing black holes in our visible universe collect incoming matter/energy – if we follow the GR spacetime 2D-branes idea.

THIRD: Countless *incoming* multiversal, yin/yang "quantum" flows provide countless "net push/shadow streams" toward any black hole. With the overly complex GR math model there would be numerous white holes associated with each black hole. Within the updated cosmic model *there is no need for any white holes*.

Theory thus becomes very messy when old physics seeks to achieve a tidy vision of everything. Elegance only emerges within the improving 21st-century 4D model of physics and astrophysics. Updated cosmic paradigms therefore do not require shoehorned geometric branes and massless forces.

References

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- [3] https://scitechdaily.com/event-horizon-telescope-images-

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- [4] https://en.wikipedia.org/wiki/Sagittarius_A
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- [7] https://en.wikipedia.org/wiki/Wormhole