## THE AUTHOR AND EINSTEIN

For starters I am an admirer of Einstein and it is clear to me that he had an unusual grasp of physics. I had served as a nuclear weapons technician in the US Air Force and to me his $E = mc^2$ equation was more than an abstract theory. I was also aware of his work on the photoelectric effect, which won him the Noble prize, and his work that provided the mathematical underpinnings for Brownian motion. I knew that he was not only the father of special relativity (SR) and general relativity (GR), but was one of the fathers of quantum mechanics as well. When I could not track his ideas I assumed that it was because I just did not know enough, which was in large part the truth.

I spent a couple of decades teaching myself to track the math associated with the key ideas of GR including the development of the Schwarzschild solution and the Ricci tensor. I possess an extensive physics library and have studied the books in it intensely.

I am an old retired ranger and naturalist of the National Park Service, who hopes that the math and ideas presented in my papers will speak for themselves. And I have proposed an experimental to test my ideas. Let them stand or fall based on the experiment.

### A dream conversation between Einstein and Handsome Hank (That's me.)

Handsome: Wake up old fellow.

Einstein: You spooked me!

Handsome: I have a bone to pick with you regarding your bowling ball-rubber sheet gravitational analogy.

Einstein: Man are you warped!

Handsome: Be nice! But if we're going to engage in name calling, I'm gone call your analogy "The Space Blanket Model", because I think it's kinda far out.

Einstein: Go crawl in a black hole.

Handsome: Not until I've made my point.

Einstein: Speaking of points, you're the closest thing to a singularity I've seen in a long time.

Handsome: Gothcha, but your analogy is based on circular logic in that it uses gravity to explain gravity. It is gravity that dimples the space blanket in the first place.

Einstein: You've missed my point, namely, that like the blanket, warped space steers other balls that are passively obeying the law of inertia as they approach the bowling ball.

In other words, just like the Coriolis force and the centrifugal force, gravity is only an apparent force - an expression of inertia.

Handsome: I'll come back to apparent forces later, but I humbly point out that if you remove gravitation, the space blanket is not going to steer anything. It is the pull of gravity - not inertia that causes the other balls to veer. If you took your model into gravity free outer space there would be no dimpling of the blanket and no veering of the other balls. Your model is **not** an analogy of how gravitation works, it is a ***demonstration*** of gravity in action. Why not dump a ton of bricks on a bug on a rainy day and watch water drain into the depression and drown the poor ol' trapped bug and claim that as an insight for how gravity works. Of course, that plainly shows that gravity works by breaking, crushing or drowning things.

Einstein: Come on get real! The model is not supposed to be an explanation of gravity. Its purpose is to help students visualize how gravitation is really an indirect force caused by the warping of space. I could devise a model that uses electromagnetic attraction or magnets to dimple the blanket in free space and get the same result.

Handsome: But that's the point. The bottom line here is that **it takes a real force** to dimple the blanket. Besides, no one can imagine three dimensional warped space and I suspect that the problem lies not with people's imaginations, but your analogy.

Einstein: Go away and let me rest in peace!

Handsome: I beg your pardon, but I think you have begged an important issue. I insist that gravity has both active and passive components. In the space blanket model the active component is the dimpling of the blanket and the passive component is the inertial veering of the other balls toward the bowling ball. You never explain the active component: how or why mass warps space.

Einstein: I beg you to leave.

Handsome: Since you brought it up, let's get back to apparent forces for a moment. The formula for centrifugal force is $F = mv^2/r$ and that for the Coriolis force is $F = 2mvw$. Both of these are useful "as if" formulas, but neither describes reality. My point is that math is a language and like any language it is useful, especially for describing operational relationships between stuff. But like with any language, if you push things too far, you can get disconnected from reality. In other words, just describing a pink elephant doesn't obligate nature to provide one. It is my belief that some of your math describes pink elephants, but you're looking kinda tired so I won't belabor the point now.

Einstein: Man, I'm dead. Are you through?

Handsome: In a minute. I just wanted you to know that *the space blanket analogy is a false comforter* and that the Entrained Spatial Medium Gravitational Sink Model does a better job of explaining gravity and inertia. So according to Ockham's razor it ought to

replace portions of General Relativity. Besides I know that you put "curvature" in quotes on at least one occasion and that you felt that the deflection of light was due to two processes. Did you know that Newton felt that gravity involved two processes? I suspect that Newton, you and I are not too far apart.

Einstein: Ockham smok'em!