

An inspiring day

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I've been struggling with cosmic ideas and socioeconomic trivialities which I knew from the very beginning that I couldn't handle. In this evening-morning, after a day at an academic conference on economics, I arrive at the following "observations" and "problems", which are just food for laughing thoughts. They will be revised, or more probably deleted, as I turn even more aware of what a fool I'm.

1. All laymen's universe is presumably 4-dimensional (excluding autistic persons, some of who must be geniuses).
2. Given spacetime curvature, it would be 7-dimensional or more (Einstein's general relativity). It's like a "god" shaking a vast rubber sheet where every mass makes a dent (a hopelessly inaccurate 3-dimensional analogy).
3. In terms of mathematics, the universe is a complex set of dynamic partial differential equations with trigonometric variables. For example, the theoretical models of black holes ("dark stars" before the 1970s) have a root in the Schwarzschild metric, one of the earliest solutions to Einstein's equations, worked out in 1915 by Karl Schwarzschild:

$$ds^2 = -c^2 \left(1 - \frac{2Gm}{c^2 r}\right) dt^2 + \left(1 - \frac{2Gm}{c^2 r}\right)^{-1} dr^2 + r^2 d\Omega^2$$

where $d\Omega^2 = d\theta^2 + \sin^2 \theta d\phi^2$ is a standard element of solid angle.

And there are the Kerr metric for a rotating black hole and the Reissner-Nordström metric for charged black holes etc., etc. (Now I'm bluffing and don't quite know what I'm talking about.)

I better stop here. But before that, how would social scientists and economists with mathematical inclinations fancy the idea of further complicating these n-dimensional models? On top of the variables of dynamics and trigonometry, what about behavioural "pulsars" {0,1} over a horizon? Theoretical solutions or simulations?

These are not only universal puzzles; they are quantum mysteries as well. Human lives could be even more intriguing, for humans, at least.