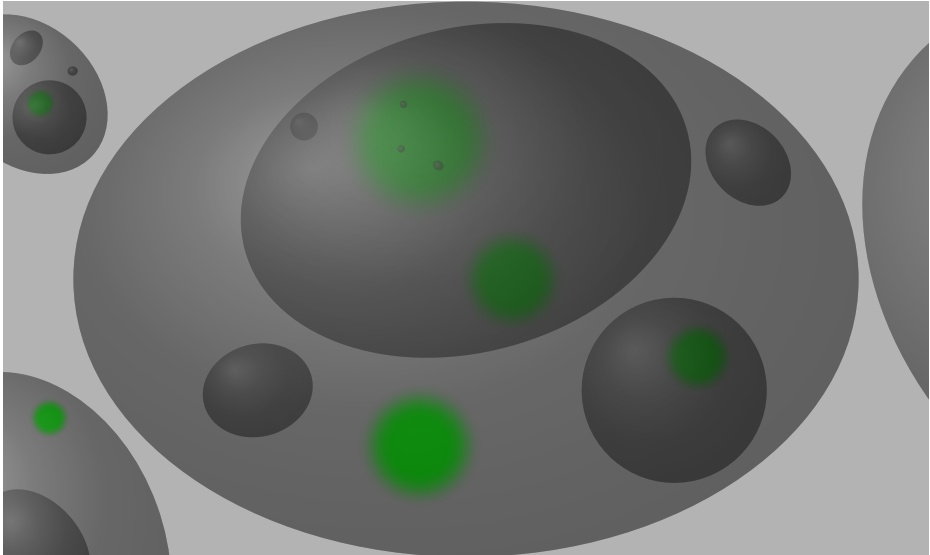


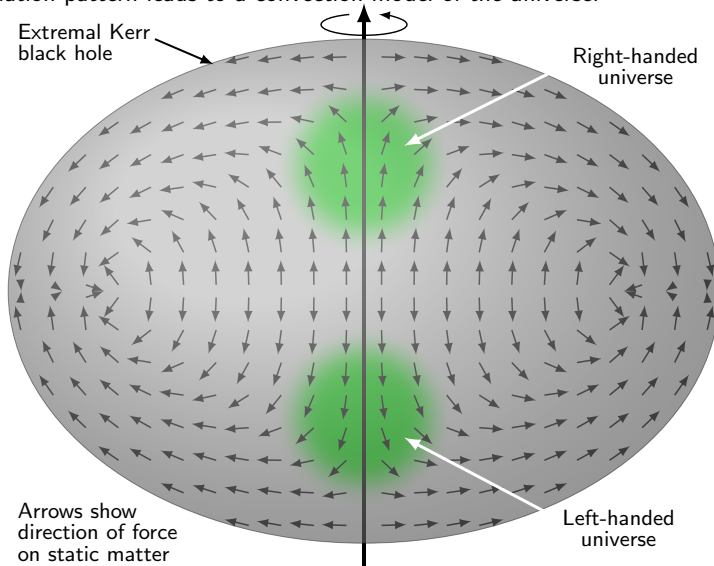
# The holoverse: infinitely nested black holes and universes

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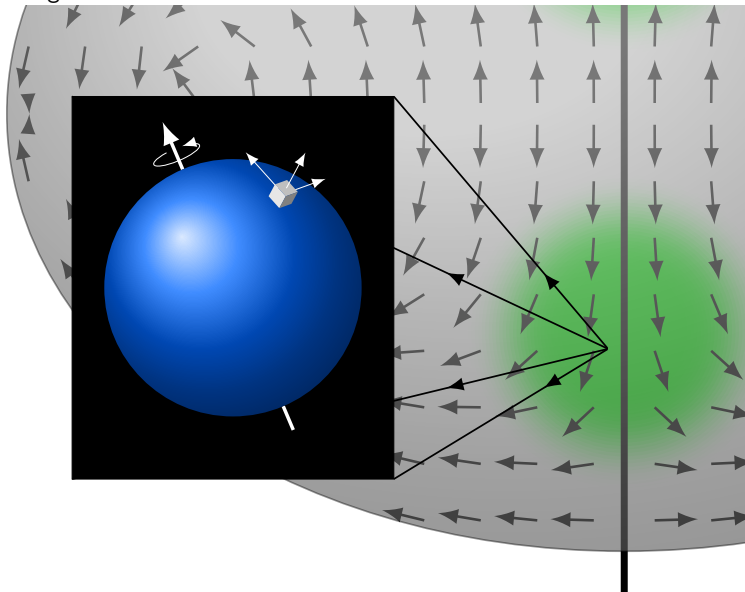
If our universe is inside an extremal Kerr black hole, then the black holes inside our universe may themselves contain other universes (endoversees), and our black hole may be inside an even larger universe (our exoverse), and so on. This potentially infinite structure of nested black holes and universes (in green) comprises the holoverse.



The angular momentum vector of the extremal Kerr black hole is the axial vector responsible for parity violation in the weak force. The upper and lower universes have opposite parity violation. Divergent lines of force explain the expansion of the universe. The circulation pattern leads to a convection model of the universe.



The rotation of the Earth may cause a daily variation in parity violation. Experiments along these lines have already been performed, and the results are consistent with our universe being inside an extremal Kerr black hole.



- ▶ No spacetime. Space is 3D, time is universal, like classical mechanics.
- ▶ No general covariance. Equations are specific to absolute space and time.
- ▶ At least 3 kinds of gravitons: scalar, vector, and matrix.
- ▶ Gravity is transmitted by gravitons, not by curved spacetime.
- ▶ Gravitons are dark matter.
- ▶ Distant events can be simultaneous.
- ▶ Photons speed up and slow down, as do electromagnetic clocks.
- ▶ Stationary event horizons are hard shells, matter cannot fall through.
- ▶ No tensors are needed to write the absolute gravity force equation. In the standard 3D notation of classical mechanics, with  $\mathbf{r} = [r_x, r_y, r_z]^T$ ,  $\mathbf{v} = \dot{\mathbf{r}}$ , and  $\mathbf{a} = \ddot{\mathbf{r}}$ :

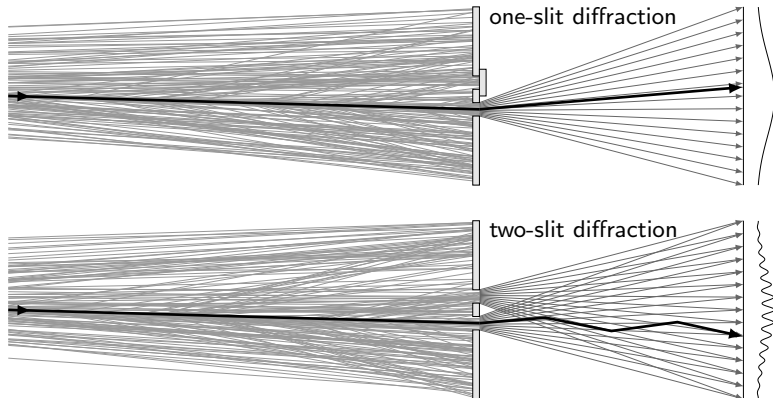
$$\mathbf{a} = - (b\bar{\mathbf{w}} + \bar{\mathbf{S}}\mathbf{d}) + (b\bar{\mathbf{g}} + \bar{\mathbf{w}} \cdot \mathbf{d})\mathbf{v}/c.$$

For definitions of the auxiliary 3D symbols, see the references at pgu.org. Mass does not appear in the force equation until electromagnetism is added.

- ▶ Adding electromagnetism to absolute gravity, and quantizing the combination, yields quantum electrogravity (QEG).
- ▶ QEG encompasses all known forces.
- ▶ QEG offers physically sensible explanations for the mysteries of quantum mechanics.
- ▶ I think QEG is the Grand Unified Theory.

Feynman said that electron two-slit diffraction is “a phenomenon which is impossible, *absolutely* impossible, to explain in any classical way, and which has in it the heart of quantum mechanics. In reality it contains the *only* mystery.”

QEG provides a simple classical explanation. The electron causes a graviton shower, the gravitons go through both slits while the electron goes through one slit, and reference frame interference ensues. QEG is a physical way to implement path integrals.



There is no wave/particle duality; everything is particles. This explains why the Schrödinger equation is so similar to the classical diffusion equation — particles (in this case, one energetic electron) are diffusing through gravitons.