

Einstein's Missing Energy

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Einstein worked on General Relativity for a decade before releasing it in 1916. For several of those years he struggled to include gravity's own energy into his equation. He couldn't get it right, so he just dropped it. How do we consistently put gravitational energy back into the equations? In this essay, Einstein's own solution to this problem - the energy pseudo tensor, along with variants are quickly reviewed and found wanting. Quasilocal energy is thus used, and we include this energy into Einstein equations. Perhaps unsurprisingly, general covariance is broken. As an example, a Schwarzschild like solution is developed, but unlike a black hole, this solution shows no horizons and no massive singularity. This also allows for new polarization modes, namely monopolar radiation.

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