

Abstract Submitted  
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**Energy Localization and the Taub Solution** PAUL HALPERN, University of the Sciences in Philadelphia — In an attempt to define the localized distribution of energy, Einstein proposed the first energy-momentum complex, which would eventually be followed by other measures proposed by Tolman, Landau-Lifshitz and others. Recent years have brought a revival of interest in these methods, following Bondi's 1990 result that energy must in principle be localizable, and the 1996 finding by Aguirregabiria, Chamorro and Virbhadra that for any metric of the Kerr-Schild class, various prescriptions for the energy-momentum complex yield precisely the same distribution. This talk will focus on anisotropic cosmological solutions, particularly Taub's 1951 exact solution for a Bianchi type-IX geometry, and compare the results for several different energy-localization prescriptions, showing that these yield reasonable and well-defined results. We'll comment on how these findings bear on Cooperstock's hypothesis about gravitational radiation.

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