GRAVITATIONAL RADIATION BY ULTRARELATIVISTIC BODIES

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Abstract. I have shown (Westervelt, 1966) that ultrarelativistic bodies do not radiate gravitational waves in the forward direction. This work has been extended so as to apply to circular orbits. Even if low efficiency of generation precludes direct observation of gravitational waves, indirect evidence for their existence is available in a recent analysis (Westervelt, 1969) of Shapiro's fourth test of general relativity.

References

Westervelt, P. J.: 1966, J.E.T.P. Letters 4, 225. Westervelt, P. J.: 1969, Acta Phys. Polon. 35, 203.

C. DeWitt-Morette (ed.), Gravitational Radiation and Gravitational Collapse, 60. All Rights Reserved. Copyright & 1974 by the IAU.