

# GRAVITATIONAL DEVIATION REACTION

TERRENCE J. SEJNOWSKI

*University of California at Santa Barbara, Calif., U.S.A.*

(Presented by J. B. Hartle)

**Abstract.** A gravitational radiation reaction tensor is calculated for a point quadrupole source in the fast motion approximation. The calculation is in direct analogy with Dirac's original calculation of electromagnetic radiation reaction. In the gravitational case a tidal deviation reaction tensor results which is linear in the fifth derivatives of the source quadrupole moments.