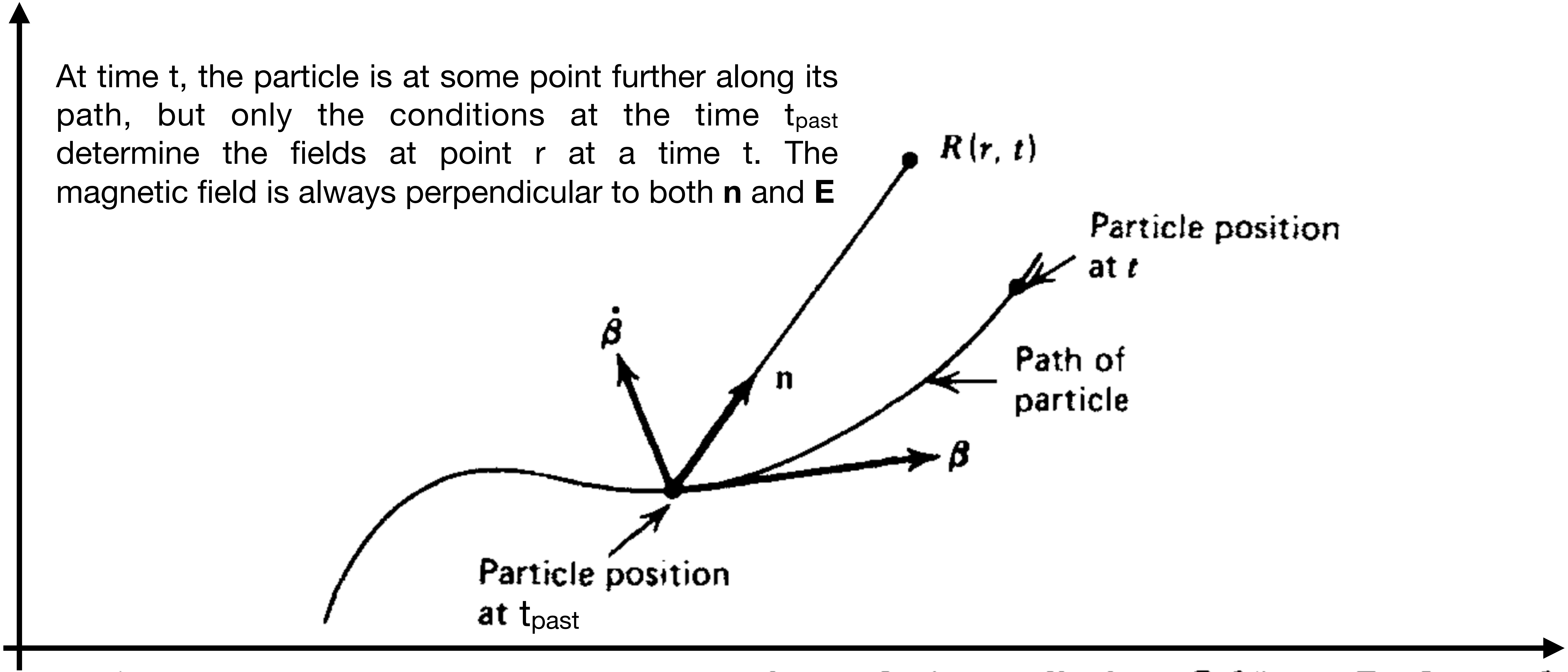

***Figure 3.1** Geometry for calculation of the radiation field at R from the position of the radiating particle at the retarded time.*

Drawn in the plane of n and acceleration.

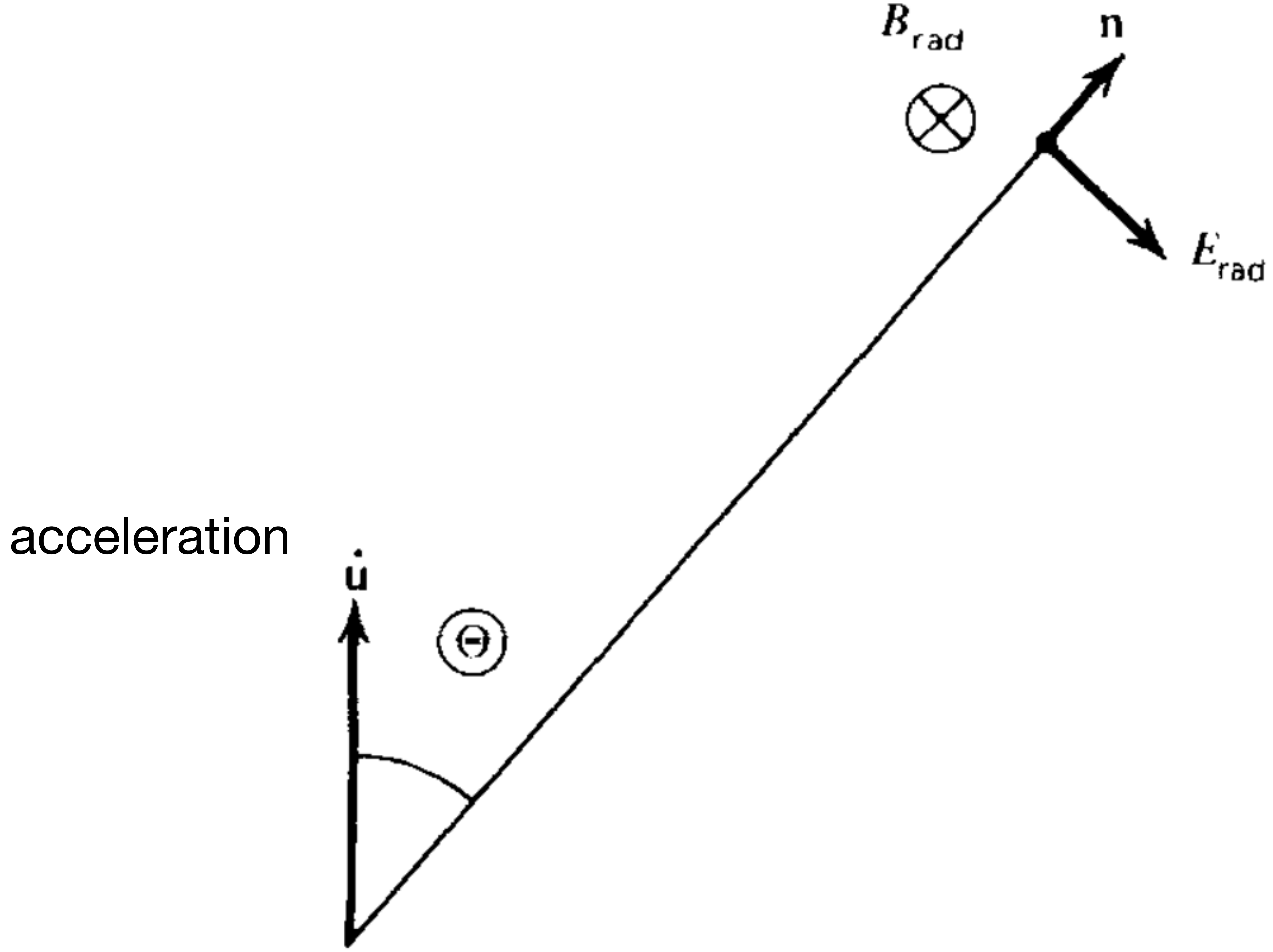

***Figure 3.3** Electric and magnetic radiation field configurations for a slowly moving particle. The direction of $\mathbf{B}_{rad}$ is into the page.*

THOMSON SCATTERING

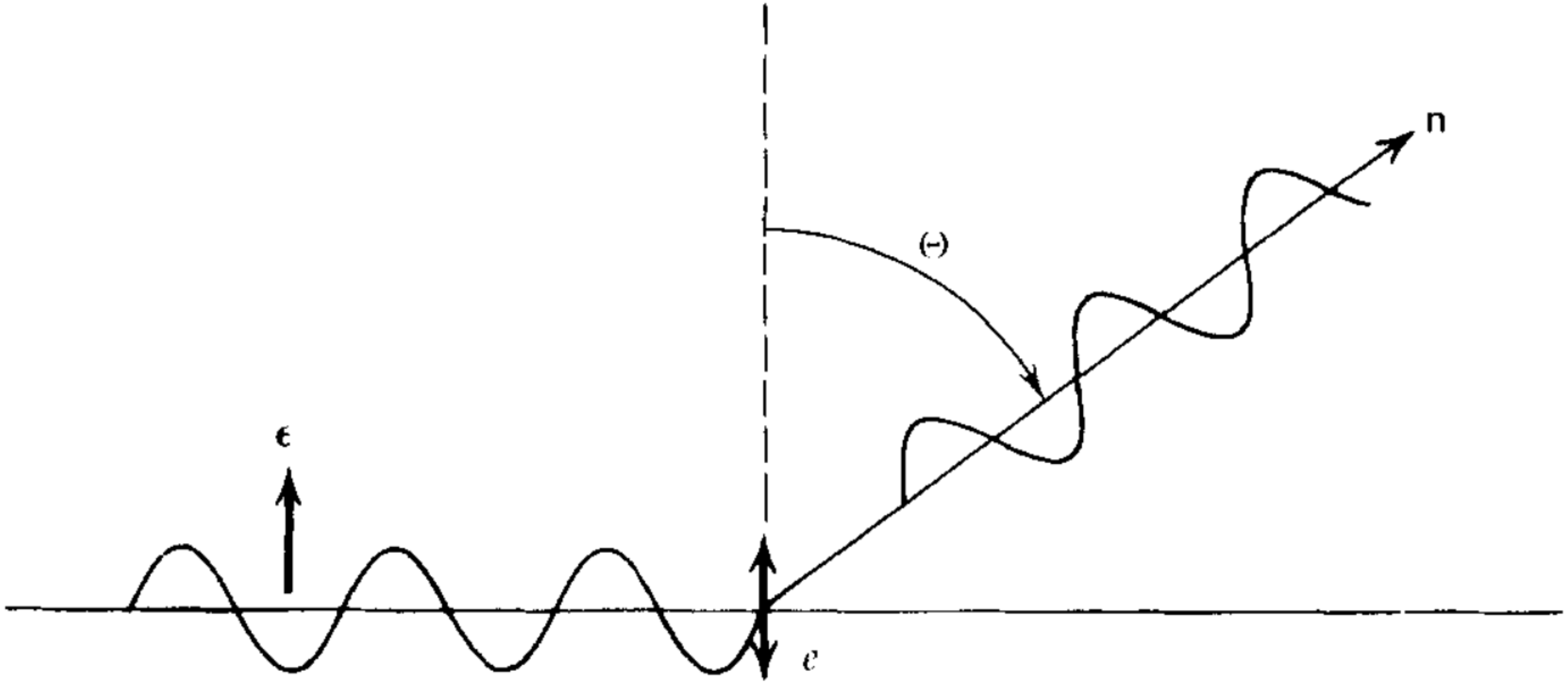

Figure 3.6 Scattering of polarized radiation by a charged particle.

The incident electromagnetic wave accelerates the electron, causing it to emit radiation at the same frequency of the incident wave, resulting in the wave being scattered.

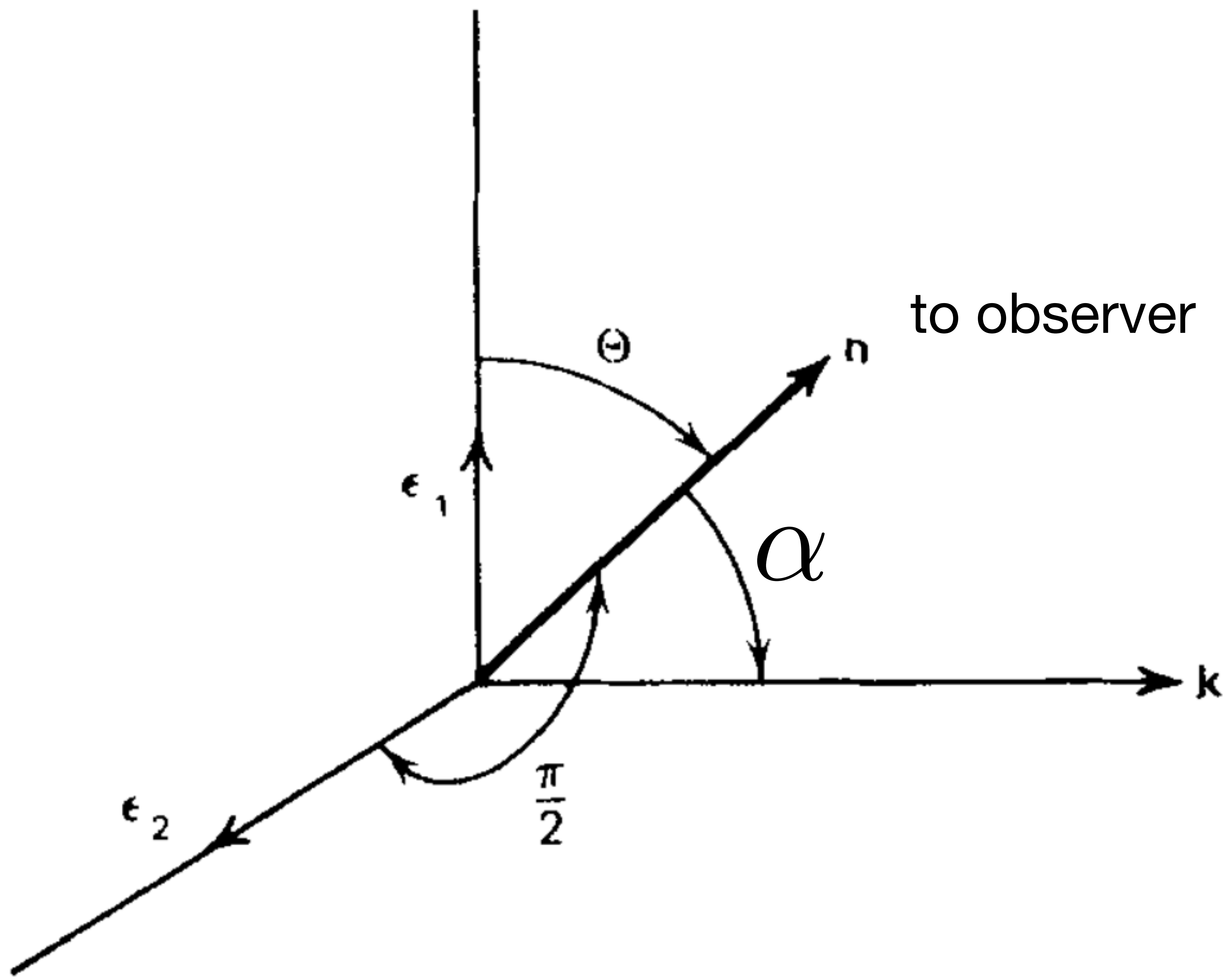

Figure 3.7 Geometry for scattering unpolarized radiation.

Approximate analytic formulas for <g$_{ff}$>

U.P. = uncertainty principle dominated regime

$$u \equiv \frac{h\nu}{kT}$$

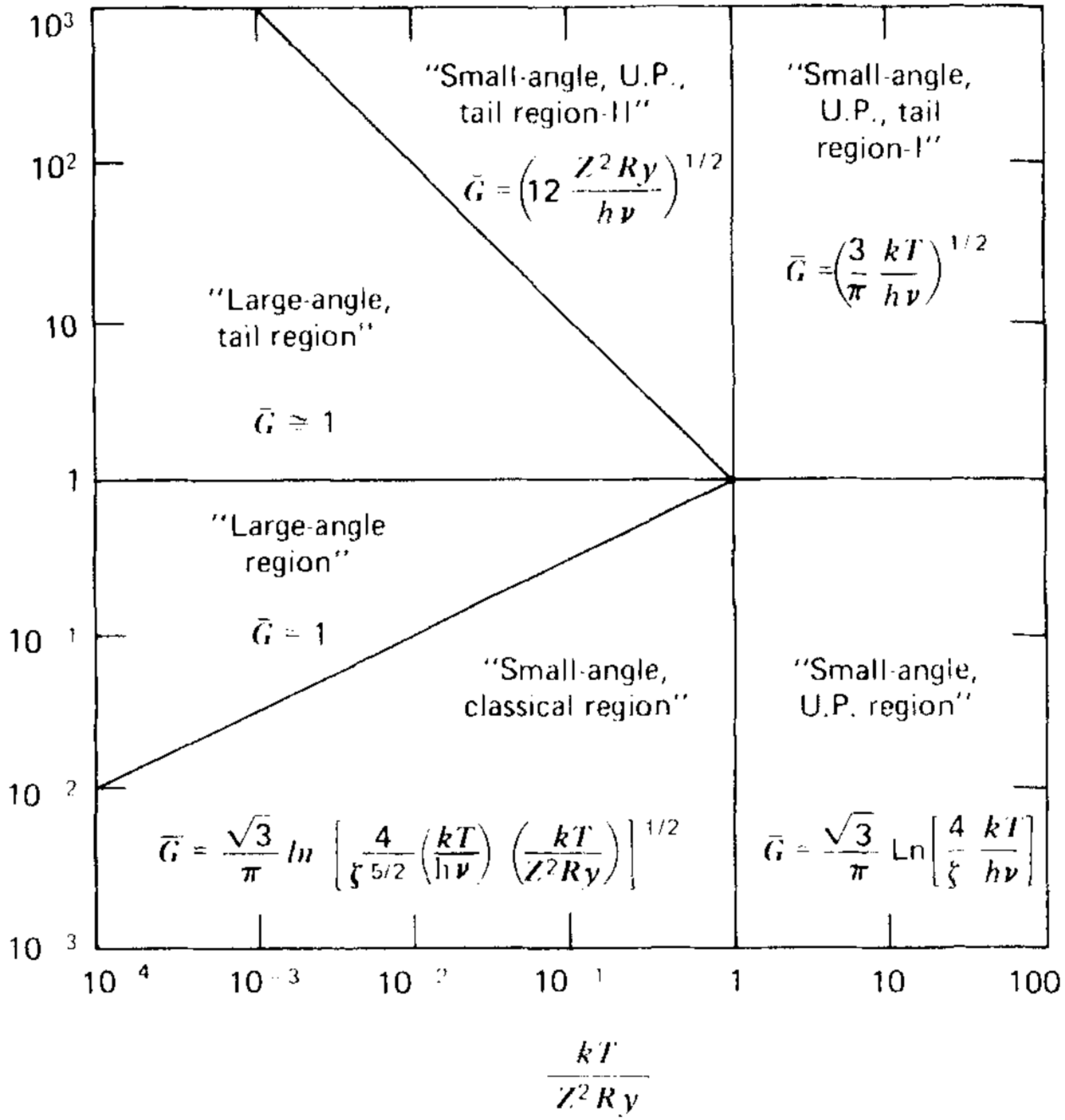

Figure 5.2 Approximate analytic formulae for the gaunt factor $\bar{g}_{ff}(\nu, T)$ for thermal bremsstrahlung. Here $\bar{g}_{ff}$ is denoted by $\bar{G}$ and the energy unit $Ry = 13.6$ eV. (Taken from Novikov, I. D. and Thorne, K. S. 1973 in Black Holes, Les Houches, Eds. C. DeWitt and B. DeWitt, Gordon and Breach, New York.)

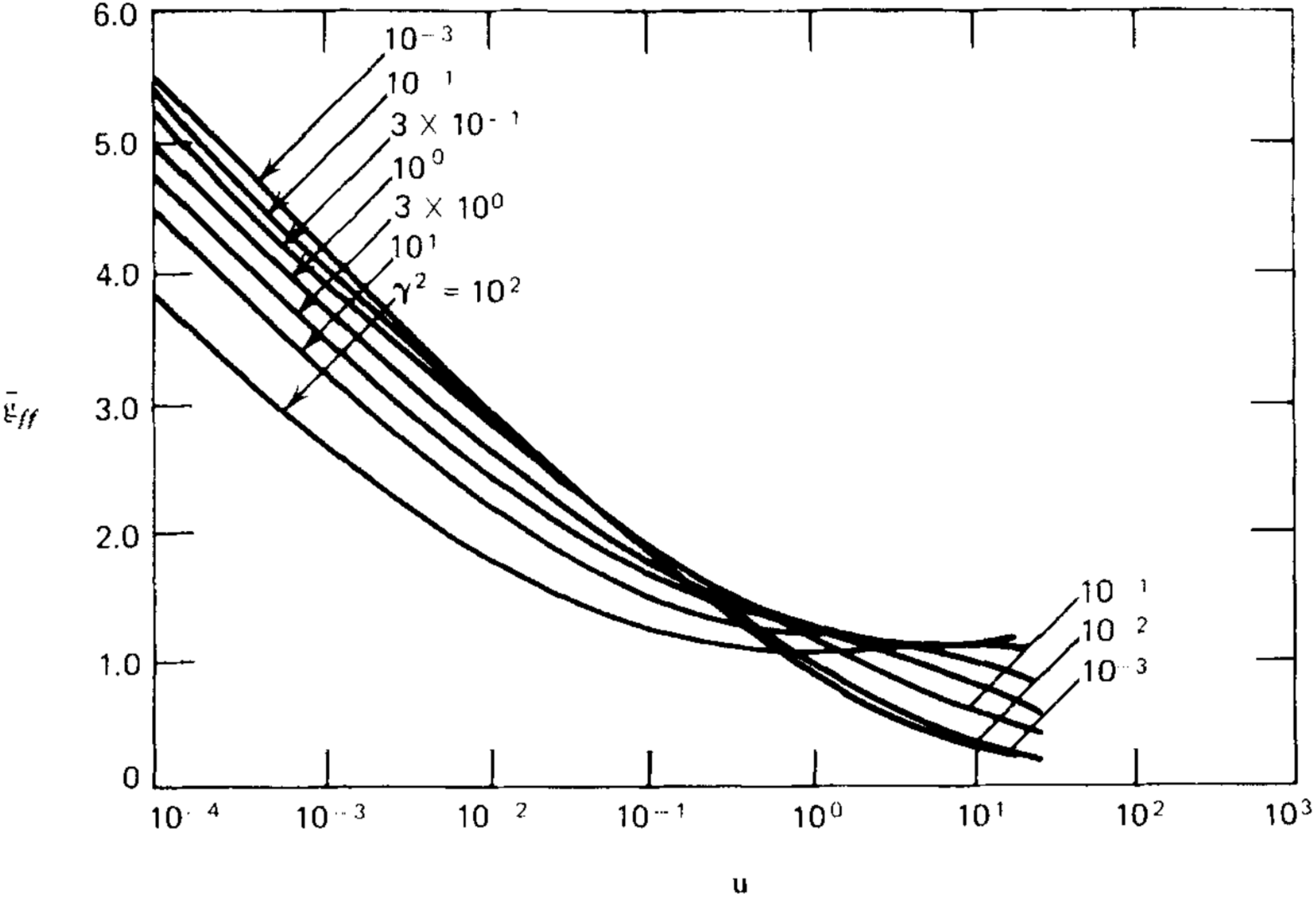

***Figure 5.3** Numerical values of the gaunt factor $\bar{g}_{ff}(\nu, T)$. Here the frequency variable is $u = 4.8 \times 10^{11}\nu/T$ and the temperature variable is $\gamma^2 = 1.58 \times 10^5 Z^2/T$. (Taken from Karzas, W. and Latter, R. 1961, Astrophys. J. Suppl., 6, 167.)*

- Spectrum of Thermal Bremsstrahlung