Fig. 4. Elastic scattering cross sections for electrons from a “point” proton and for the actual proton. The differences are attributable to the finite size of the proton.

Fig. 5. Feynman diagram for inelastic electron scattering.

\[
\frac{d^2\sigma}{d\Omega\,dE'} (E, E', \theta) = \sigma_M \left[ W_2(v, q^2) + 2 W_1(v, q^2) \tan^2(\theta/2) \right] \quad (3)
\]

This expression is the analog of the Rosenbluth cross section given above. The structure functions \( W_1 \) and \( W_2 \) are similarly defined by Equation (3) for the proton, deuteron, or neutron; they summarize all the information about the structure of the target particles obtainable by scattering unpolarized electrons from an unpolarized target.

Within the single-photon-exchange approximation, one may view inelas-