behavior of the resonances excited in electron scattering. In addition to these bumps there is a broad continuum of large cross-section. These spectra have a qualitative similarity to those observed in inelastic electron-nuclear scattering. The spectra shown have full radiative corrections. While the radiative corrections are the largest corrections to the data and involve a considerable amount of computation, they are understood to within the 5% to 10% level and do not significantly increase the total error in the measurements. In Figure 3 is shown the relative magnitude of the radiative correction as a function of W for a typical spectrum.

The general behavior of the measured spectra as a function of laboratory energy and angle can be seen in Figures 4 and 5, in which some of the measured spectra are sketched.[5] These figures show that the excitation of discrete states is dominant for lower angles and incident energies, but at larger angles and incident energies the continuum channels dominate the scattering. The Mott cross-section (without the kinematic correction for target recoil) is given for each energy and angle to serve as a scale for the scattering cross-sections. The figures indicate that the resonances damp out more rapidly than the bulk of the continuum with increasing values of $q^2$.

To extract the effects of the nucleon structure in the scattering process it is useful to separate out the pure Q.E.D. dependence of the scattering cross-section. On the assumption of one photon exchange, the differential cross-section[6] in the laboratory frame for electron scattering in which only the scattered electron is detected is

$$\frac{d^2\sigma}{d\Omega dE} = \frac{e^4}{4E^2} \frac{\cos^2\theta/2}{\sin^4\theta/2} \left[ W_2 + 2W_1 \tan^2 \theta/2 \right]$$