

Abstract:

The understanding of the strong force acting between nucleons is one of the most fundamental problems addressed by nuclear physics. The simplest reactions to study this force with, besides elastic scattering, are proton-proton real and virtual bremsstrahlung.

Since the mid 90s, a series of experiments were setup at KVI to study real and virtual proton-proton bremsstrahlung at 190 MeV in which the kinematics are chosen such that one goes as far away as possible from the elastic channel, thereby producing high energy photons. In continuation of that work and in order to cover a much larger area of the available phase space, a new setup employing the SALAD and the Plastic-Ball detectors was used. In this experiment much smaller photon energies were measured, thus moving toward the elastic channel. In this talk the details of the experiment along with the results will be presented