Evidence for Heavy Leptons". Figure 6 is from this paper. PLUTO was also a large-solid-angle detector and so for the first time we could fully discuss the art and technology of τ research with an independent set of experimenters, with our friends Hinrich Meyer and Eric Lohrman of the PLUTO Collaboration.

With the finding of $\mu-$hadron events I was convinced I was right about the existence of the τ as a sequential heavy lepton. Yet there was much to disentangle: it was still difficult to demonstrate the existence of anomalous $e-$hadron events and the major hadronic decay modes

$$\begin{aligned} \tau^- &\rightarrow \nu_\tau + \rho^- \\ \tau^- &\rightarrow \nu_\tau + \pi^- \end{aligned} \tag{8}$$

had to be found.

K. ANOMALOUS ELECTRON EVENTS

The demonstration of the existence of anomalous electron events

$$e^+ + e^- \rightarrow e^\pm + \text{hadrons} + \text{missing energy}$$

required improved electron identification in the detectors. A substantial step forward was made by the new DELCO detector, Fig. 7, at SPEAR (Kirkby[42], Bacino *et al.*[43]). In Kirkby's talk[42] at the Photon-Lepton Conference, "Direct Electron Production Measurement by DELCO at SPEAR", he stated

> "A comparison of the events having only two visible prongs (of which only one is an electron) with the heavy lepton hypothesis shows no disagreement. Alternative hypotheses have not yet been investigated."

The Mark I detector was also improved by Group E from SLAC and a Lawrence Berkeley Laboratory Group led by Angela Barbaro-Galtieri; some of the original Mark I experimenters had gone off to begin to build the Mark II detector. We installed a wall of lead glass electromagnetic shower detectors in the Mark I, Fig. 8. This led to the important paper