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An independent check of the CVC hypothesis in the charged pion via the radiative pion decay $\pi^+ \to e^+\nu\gamma$ MAXIM BYCHKOV, University of Virginia, PIBETA COLLABORATION — The PIBETA experiment has collected the world largest sample of the positive pion and muon decays to date, using Paul Scherrer Institute meson facility in Switzerland. The radiative pion decay $\pi^+ \to e^+\nu\gamma$ is the key element of the PIBETA data stream analysis. This decay is sensitive to the structure of the charged pions and serves as an independent check of the CVC hypothesis. Measuring this decay is experimentally challenging and it provides much deeper level of understanding of the systematic effects in the PIBETA detector. This talk will concentrate on the combined analysis of $\pi^+ \to e^+\nu\gamma$ decay in the entire PIBETA data set. Particular emphasis will be given to the new precise determination of the charged pion vector form factor F_V and its dependence on the momentum transfered to the lepton pair.

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