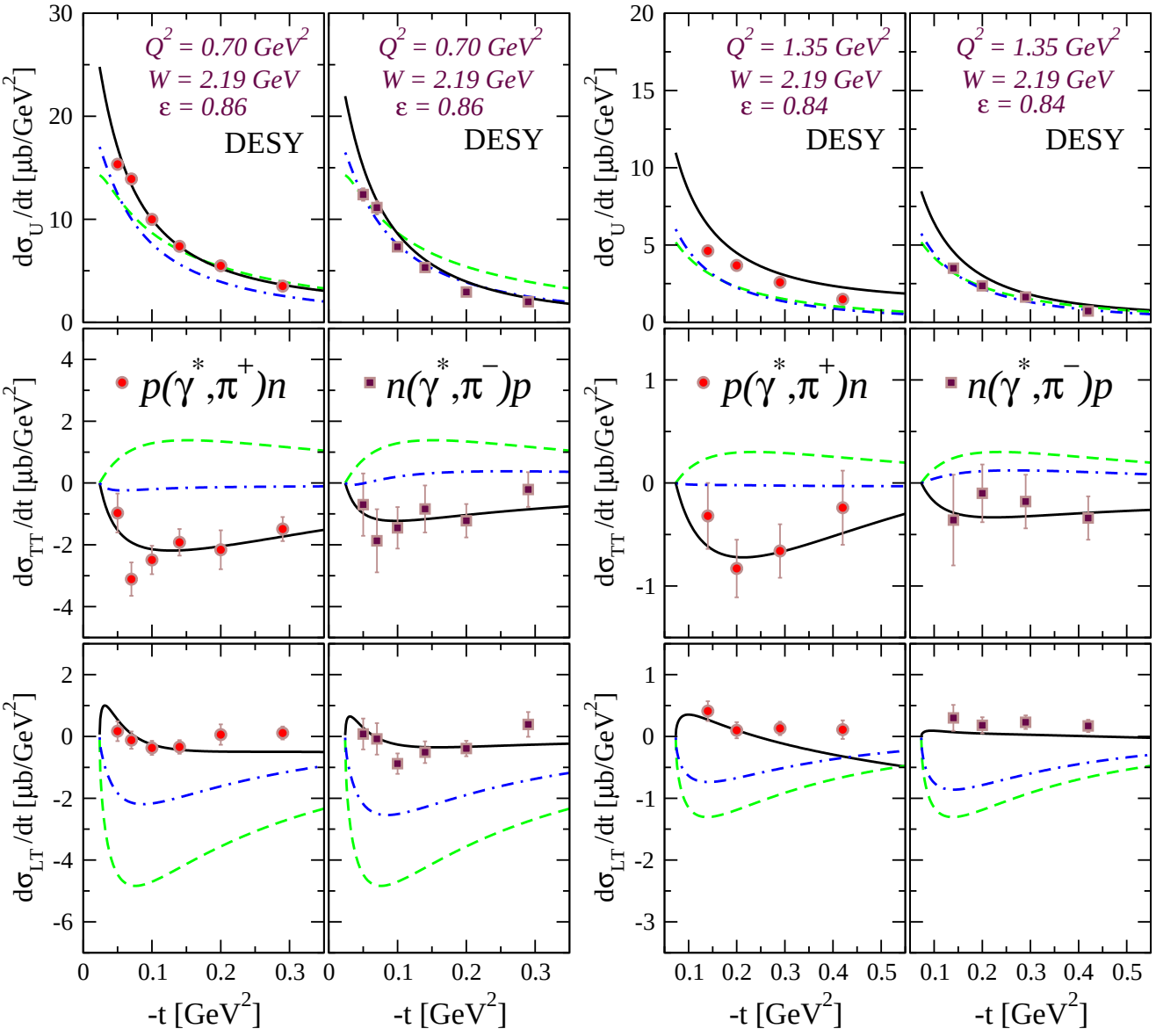

FIG. 12: (Color online) The differential cross sections $d\sigma_{\rm U}/dt = d\sigma_{\rm T}/dt + \varepsilon d\sigma_{\rm T}/dt$ (top), $d\sigma_{\rm TT}/dt$ (middle) and $d\sigma_{\rm LT}/dt$ (bottom) in exclusive reactions $p(\gamma^*,\pi^+)n$ (left panels) and $n(\gamma^*,\pi^-)p$ (right panels) in the kinematics of DESY experiments for the average values of $Q^2 = 0.7$ GeV^2, $W = 2.19$ GeV, $\varepsilon = 0.86$ and $Q^2 = 1.35$ GeV^2, $W = 2.19$ GeV, $\varepsilon = 0.84$. The notations for the curves are the same as in Figure 6. The experimental data are from Ref. [13, 14].

jectory. However, in electroproduction the π^-/π^+ asymmetry is driven by the resonance contributions through the different $(Q^2, s(u))$ dependence of the transition form factors, Eqs. (43) and (44), in the π^+ and π^- channels. For instance, the dash-dotted curves in Figure 11 do not account for the contributions of resonances; the π^-/π^+ ratio is bigger than unity. In the right panel we show the results for the values of $Q^2 = 1.35$ GeV^2 and $\varepsilon = 0.84$.

Our dash-dotted curves which describe the Regge model without the R/P-effects are at variance with the results reported in Ref. [53] where the gauge invariant Regge model with the nucleon-pole contribution has been shown to be in remarkable agreement with the π^-/π^+ electroproduction ratio. This is surprising since the model of [53] is not compatible with the JLAB L/T data in the same (Q^2, W) region [4].

Before drawing definite conclusions concerning these discrepancies, we compare in Figure 12 our model results with the measured differential cross sections $d\sigma_{\rm U}/dt = d\sigma_{\rm T}/dt + \varepsilon d\sigma_{\rm T}/dt$ (top), $d\sigma_{\rm TT}/dt$ (middle) and $d\sigma_{\rm LT}/dt$ (bottom) in exclusive reactions $p(\gamma^*,\pi^+)n$ (left panels) and $n(\gamma^*,\pi^-)p$ (right panels). The experimental data are from Refs. [13, 14]. The average values of (Q^2, W, ε) are the same as in Figure 11 for the π^-/π^+ ratio. The