

Appendix A: Supplementary material

As supplementary material of this paper, we provide our fit results shown in Figs. 4 and 5 for the pion form factor phase and modulus squared in two data files named FormFactorPhase.dat and FormFactorModulusSquared.dat, respectively.

In the FormFactorPhase.dat file, the first column is \sqrt{s} (in GeV) and the other two columns correspond to the numerical value of the phase and the statistical error for each fit, and they are given until 2 GeV. For our reference fit (Fit 1), moreover, we provide a fourth column with our conservative estimate for the systematic error. We calculate this after symmetrizing the asymmetric systematic uncertainties associated to the fit parameters presented in Eq. (42) and by assuming a Gaussian error propagation while simultaneously varying the corresponding parameters.

In the FormFactorModulusSquared.dat file, the first column is s (in GeV^2) and the second column is the value for the form factor modulus squared for each fit, and is given until $s = m_\tau^2$. The associated upper and lower statistical error bands are collected in the third and fourth columns of the file, respectively. As before, for our reference fit (Fit 1), we also provide an estimated systematic error, and the resulting upper and lower bands are gathered, respectively, in columns fifth and sixth of the file.