Contents

In this set of notes I collect the technical aspects concerning generalised parton distributions (GPDs). Since the computation GPDs introduces new kinds of convolution integrals, a strategy aimed at optimising the numerics needs to be devised.

1 Evolution equations

We start by discussing the implementation of the evolution equations. I will try to stick to Ref. [1] for the general notation. First, I introduce the main variables involved in the computation of GPDs:

- $x \equiv \frac{Q^2}{2pq}$ is the usual Bjorken x defined in the range $[-1:1]$,
- $\xi = \frac{p^+ - p'^+}{p^+ + p'^+}$:
- $t = (p - p')^2$ is the usual t-channel squared energy,
- μ the renormalisation scale

Sect. 3.1 of Ref. [1] gives a comprehensive review of the relevant variables and notation.

References

[1] M. Diehl, Phys. Rept. **388** (2003) 41 doi:10.1016/j.physrep.2003.08.002, 10.3204/DESY-THESIS-2003-018 [hep-ph/0307382].