

## **Eduardo Ferreira:** Hadronic Structure from Functional Methods

Hadrons are strongly interacting particles composed of quarks and gluons and described by Quantum Chromodynamics (QCD). Their internal structure can be described in terms of structure functions that encode, for example, the momentum and spin distributions of their constituents. Parton distribution functions (PDFs) and Transverse Momentum Distributions (TMDs), for example, describe the quark and gluon momentum distributions inside a hadron. These distribution functions are, however, not easy to calculate, because they are defined on the light front, whereas most hadron calculations are performed in a Euclidean metric. The main problem is then to go from Euclidean onto the light front. We are developing a new method to compute the parton distributions (TMDs and PDFs) from hadronic matrix elements using contour deformations. We will quickly go over our current results, which give us the disconnected and connected contributions to the TMDs and PDFs. We will then follow with a plan for further work, like the calculation of GPDs and GTMDs and discuss the possible physics observables and quantities of interest.