## Hadron structure from the lattice

The understanding of the inner structure of the nucleon is an active field of research with implications on high-energy physics, nuclear physics and astroparticle physics. Information on, for example, how the nucleon's energy and spin are divided among the quarks and gluons, the building blocks of matter, is encoded in nucleon structure functions, which are under study at major facilities like Jefferson Lab, Brookhaven National Lab, DESY and CERN. In this project unpolarized and polarized nucleon structure functions are computed from first principles on the space-time lattice, overcoming the limitations of the parton and light-cone model and effective theory, thus taking full account of the interaction of quarks and gluons at various levels of magnification. This project will leverage the computational advantage provided by NHR resources to break new ground in nuclear and particle physics and challenge the current understanding of the fundamental interactions between the building blocks of matter.