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## Bound and Free Nucleon Structure

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Atomic nuclei are made of protons and neutrons, themselves composed of quarks and gluons. Understanding how the nuclear environment impacts the quark-gluon structure of bound nucleons is an outstanding challenge. While the first evidence for such impact, known as the 'EMC effect', was observed over 35 years ago, a generally accepted explanation of the dynamics driving it is still lacking. I will present new high-energy electron-scattering data, that, combined with existing data, indicate that the underlying cause and dynamics of the EMC effect is the structure modification of close-proximity nucleons. A global analysis of deep inelastic scattering (DIS) data on the proton and on nuclei from  $A = 2$  (deuterium) to 208 (lead) presented here, quantify the modification of the structure function of nucleons bound in atomic nuclei (the EMC effect) within the framework of a universal modification of nucleons in short-range correlated (SRC) pairs. It also allows to extract neutron-to-proton structure function ratio ( $F_n/F_p$ ) with smaller uncertainties than previous extractions.

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