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Augmented reality: a 3D-look inside matter to understand how it comes about from QCD quarks and gluons

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We know that quarks and gluons combine to form ordinary matter following QCD, the theory of Strong Interactions. However, at the energies of everyday life the theory is so intricate that we don't know yet how this happens. In order to understand it, we want to build 3D pictures of matter interiors. The tools that allow for a 3D mapping in momentum space, are named Transverse-Momentum parton Densities, or TMDs. In this talk, I will review the current status of our knowledge on TMDs of the nucleon, including the case when quark and/or nucleon are polarized.