New results from flow, chirality and vorticity at RHIC-STAR

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Heavy-ion collisions quickly form a hot and dense phase of Quantum Chromodynamics (QCD) matter, so called the strongly interacting quark-gluon plasma (QGP). The QGP persists for only a much shorter time (10^{-23}s), then cools and translates into a lower temperature hadronic phase. Analyzing these final particles in a variety of different ways offers a unique insight into the properties of QGP and the complex dynamics of multi-scale processes in QCD. In this talk, several observables including the characteristic features of collective flow, chirality, and vorticity to understand this smallest and hottest droplet of liquid from recent STAR experimental preliminary results will be addressed.