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# Challenges of flow harmonic analysis in LHC collisions from large to small systems

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One of the primary goals of heavy-ion physics is to understand the transport properties of the quark-gluon plasma (QGP), which is composed of the smallest constituents of matter, the quarks and gluons, and which filled up our universe a few microseconds after the Big Bang.
The present most challenging question in this research field is to pin down the critical point of the QGP, where the shear viscosity over entropy ratio is at its minimum. As of now, the QGP has the smallest observed value of $\eta/s$, close to the theoretical minimum of $1/4\pi$. Significant advances based on flow harmonic analysis have recently been made. There are, however, still a few remaining challenges in both experiment and theory to constrain the temperature dependence of $\eta/s$ and $\zeta/s$ of the QGP. In this talk, I will highlight the latest results from LHC experiments in this regard and discuss aforementioned challenges.

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