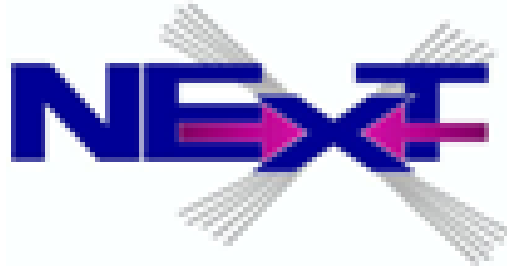


# XI NExT PhD Workshop: Probing fundamental physics at colliders and beyond



Contribution ID: 18

Type: **not specified**

## Vorticity and spin in relativistic heavy-ion collisions

*Wednesday, 30 June 2021 15:40 (5 minutes)*

Since the first positive measurement of the  $\Lambda$ -hyperon global spin polarization in heavy-ion collisions by STAR in 2017, the understanding of the nature of this phenomenon is one of the most intriguing challenges for the community. As relativistic fluid dynamics celebrates multiple successes in describing collective dynamics of the QCD matter in such reactions, the natural question arises whether the spin dynamics can also be modeled in such a framework. In this talk, the motivation for and recent outcomes of the experimental hunt for the macroscopic footprints of quantum spin in the relativistic heavy-ion collisions will be presented and the theoretical challenges connected with formulating its collective description will be discussed.

**Primary author:** Mr SINGH, Rajeev (Institute of Nuclear Physics Polish Academy of Sciences)

**Presenter:** Mr SINGH, Rajeev (Institute of Nuclear Physics Polish Academy of Sciences)

**Session Classification:** Student talks