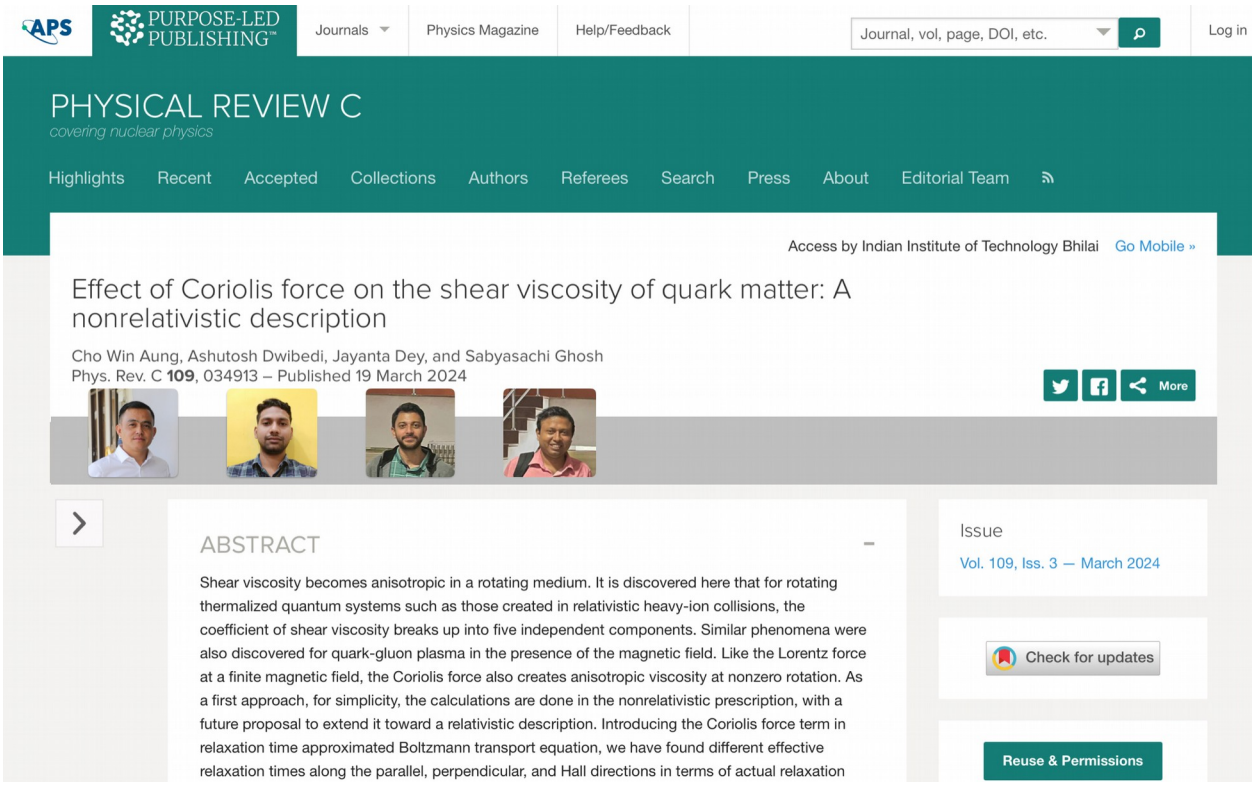
1. Effect of Coriolis force on the shear viscosity of quark matter: A nonrelativistic description

2. Effect of the Coriolis force on the electrical conductivity of quark matter: A non relativistic description

An artificial baby universe made of quarks and gluons, called quark gluon plasma (QGP) can be produced in the Large Hadron Collider (LHC) at CERN, Geneva and Relativistic Heavy Ion Collider (RHIC) at BNL, USA. This QGP is produced by accelerating and colliding two high energetic nuclear beams inside the particle accelerator. Two articles from the QGP group of IIT Bhilai are published on 19th March, 2024 in the same volume of Physical Review C journal.

1. DOI: 10.1103/PhysRevC.109.034913



2. DOI:: https://doi.org/10.1103/PhysRevC.109.034914

A theoretical study on the shear viscosity and electrical conductivity of QGP created in the Heavy Ion Collisions is carried out by the research group of Dr. Sabyasachi Ghosh (Assistant Professor, Department of Physics, IIT Bhilai) with his PhD students - Mr. Ashutosh Dwibedi, Mr. Cho Win Aung (ASEAN-PhD fellow) and Dr. Jayanta Dey (former PhD student of Dr. Ghosh and currently doing post-doc in IIT Indore). They have found the effect of Coriolis force due to rotation of quark matter on the magnitude of shear viscosity and electrical conductivity.