

## 9th Shivalik HEPCATS (High Energy Physics, Cosmology, Astronomy: Theory and Simulations)



Contribution ID: 16

Type: **not specified**

# Origin of magnetic fields during inflation and their subsequent evolution

*Sunday 28 January 2024 10:10 (20 minutes)*

Magnetic fields are found everywhere in the universe, including in intergalactic space. One possible mechanism for producing seed magnetic fields is by assuming a breaking of conformal invariance during inflation. I shall describe this mechanism as well as the evolution and certain quantum measures of these magnetic fields in some inflationary models of interest.

**Author:** TRIPATHY, Sagarika

**Co-authors:** PARATTU, Krishna Mohan (IIT Mandi); RAVEENDRAN, Rathul nath (Indian Association for the Cultivation of Science, Kolkata, India); Prof. LAKSHMANAN, Sriramkumar (IIT Madras)

**Presenter:** PARATTU, Krishna Mohan (IIT Mandi)