## SEMPARIS – Séminaires en région parisienne

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## **Particle Physics at LPTHE**

Vendredi 29 Mars 2024, 14 :00

LPTHE, Library and Zoom (link in the comments)( https://cern.zoom.us/j/63031219326?pwd=ST

Domaines : hep-ph

Titre : Phenomenology of Galactic cosmic-ray transport

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Résumé : Despite the important role of cosmic rays in the Galactic interstellar medium, the origin of these particles is still not unambiguously identified. Supernova remnants have long been considered as the most potential class of sources for Galactic cosmic rays. This hypothesis is commonly known as the supernova remnant paradigm. There exist many arguments supporting this paradigm. Some limitations however still persists especially in the MeV and PeV energy ranges, the two energy frontiers of Galactic cosmic rays. Understading the transport of these particles on Galactic scales is, in fact, the key in verifying or falsifying the supernova remnant paradigm. In this talk, I will provide a brief summary of our current understanding on Galactic cosmic-ray transport and its potential implications for the supernova remnant paradigm.