



Contribution ID: 32

Type: **Poster**

## 20 years of Arrival Direction Studies at the Pierre Auger Observatory

*Monday, 17 June 2024 16:55 (3 minutes)*

The Pierre Auger Observatory is the largest detector for ultrahigh-energy astroparticles in the world. Located in the Argentinean pampa, it observes cosmic rays from approximately 80% of the sky, including the Galactic Center. The Observatory is sensitive to cosmic rays at energies of approximately 10 PeV up to 100 EeV, and has made significant discoveries in cosmic-ray research; for example, the discovery of a modulation in right ascension above 8 EeV with a current significance of  $6.9\sigma$  confidence level, suggesting an extragalactic origin of ultrahigh-energy cosmic rays. Furthermore, searches for localized and intermediate-scale excesses are ongoing.

We present latest results of searches for anisotropy in the Auger data, and we outline future prospects utilizing novel analysis methods and Phase2 of the Observatory.

**Primary author:** STADELMAIER, Maximilian (Istituto Nazionale di Fisica Nucleare)

**Presenter:** STADELMAIER, Maximilian (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Flash Talks-1

**Track Classification:** Ultra-High Energy Cosmic Rays