Auger Youngsters Meeting 2024 (Siegen)



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Investigating the Elemental Spectra and Arrival Directions of UHECRs

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The origin of the UHECRs remains unknown. Yet the properties of the detected spectra can provide us with useful clues. We aim to study the features of the energy spectra in dependence on arrival air showers using artificial neural network mass estimators. Obtaining the elemental group of the primary particle on a single-event basis allows for the separation of the lightest particles which are minimally deflected on the extragalactic magnetic fields. We are searching for small- and large-scale correlation patterns in the sky in comparison with existing object catalogs.

Primary author: ČERMÁKOVÁ, Berenika (KIT)

Presenter: ČERMÁKOVÁ, Berenika (KIT) **Session Classification:** Main session