

# Features of a single source describing the very end of the energy spectrum of cosmic rays

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ICRC 2021, June 13th Institute of Physics of the Czech Academy of Sciences, Prague, Czech Republic

## What is this contribution about?

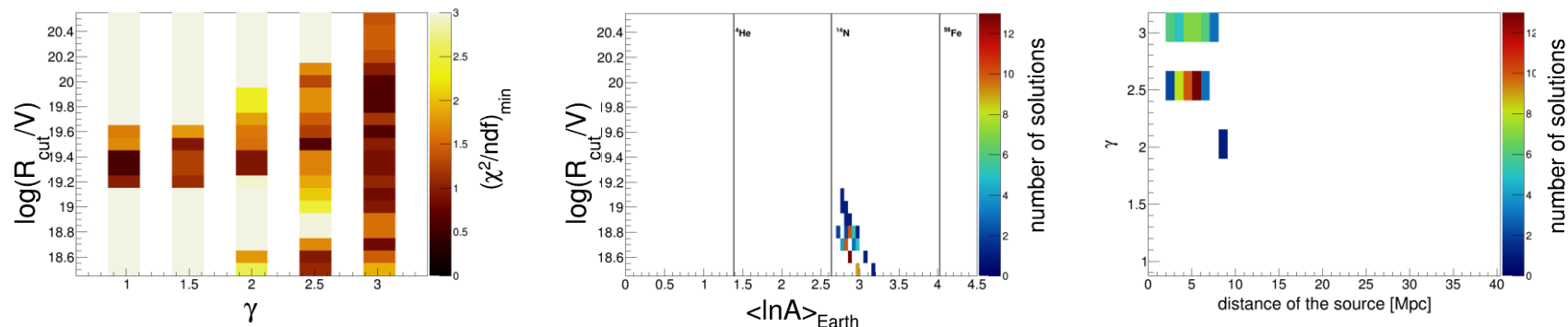
- We investigate if the energy spectrum of cosmic rays (CRs) measured by the Pierre Auger Observatory above  $\log_{10}(E/V) = 19.5$  can be explained by a single dominant source.

## Why is it relevant / interesting?

- The Pierre Auger Observatory and Telescope Array observe different suppression of the flux of CRs at the highest energies and this might be explained by the ability to observe different sources in the Northern and Southern hemispheres.

## What have we done?

- We investigate different characteristics of sources and compare the energy spectrum and mass composition of CRs after their propagation simulated in CRPropa 3 with available measurements.



## What is the result?

- A source distant within 10 Mpc from the Earth with spectral index  $\gamma \gtrsim 2.0$  and  $\log_{10}(R_{\text{cut}}/V) < 19.2$  can produce energy spectrum and mass composition on the Earth compatible with Auger measurements.