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## **New Galactic Magnetic Field model and cosmic ray propagation**

*Friday, 21 March 2025 17:40 (20 minutes)*

We constructed new model of large scale Galactic Magnetic Field. We have achieved several important improvements compared to previous approaches. Due to account of our location inside of the Local Bubble our model does not require introduction of striated fields. For the first time we showed that the Fan Region in outer Galaxy can be modelled as a Galactic-scale feature. We identify the GMF components responsible for deflections of ultra-high energy cosmic rays in various regions of the sky and discuss the uncertainties in modelling these components, as well as potential future improvements. For LHAASO energies we expect propagation of cosmic rays in halo follow the structure of large scale Galactic Magnetic Field, which produce strongly elongated gamma-ray images.

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