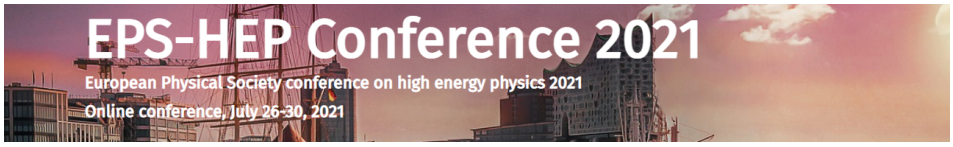

Contribution ID: **1164** Type: **Parallel session talk**

Galactic cosmic-ray propagation

Tuesday 27 July 2021 09:30 (20 minutes)

I will give an overview of the relevant physics and the challenges of Galactic cosmic-ray transport. In particular, I will address recent developments in numerical modelling and physical developments on this field. Corresponding numerical models aim at reproducing cosmic-ray spectra and also diffuse gamma-ray emission from the Galaxy from high to very-high energies. For these numerical models we witness a transition from analytically prescribed two-dimensional azimuthally-symmetric models to those that use a more realistic description for our Galaxy. Focusing on results computed with the cosmic-ray propagation code PICARD, I will address the new aspects that can be incorporated in such three-dimensional models. This includes, e.g., the impact of observation-driven cosmic-ray source distributions and also the possibility to investigate the effect of anisotropic diffusion with respect to the local magnetic field.

First author

Ralf Kissmann

Email

Collaboration / Activity

None

Primary author: KISSMANN, Ralf (Universität Innsbruck)

Presenter: KISSMANN, Ralf (Universität Innsbruck)

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