

# Cosmographic model of the astroparticle skies

**400,000 galaxies within 1 Gyr to constrain the astroparticle skies** ([arXiv:2105.11345](https://arxiv.org/abs/2105.11345), Biteau+ 2021 ApJS in press)

Expands on near-infrared catalogs proposed gravitational-wave (GW) community: **improved distance & completeness estimates**

Provides **stellar mass and star formation rate (SFR) estimate for each galaxy**, with resolution & bias X-checked against deep fields

**Of interest to  $\nu$ ,  $\gamma$ -ray, GW and UHECR wide field-of-view searches:** latter explored in this ICRC contribution

Local overdensity impact on **UHECR spectrum, composition, and flux maps**, in a transient UHECR scenario (production  $\propto$  SFR)

Constraints on transient rate: **promising match with UHECR data**. Skymap discrepancies: likely **confinement on cluster scales**.

