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Prospects of testing an UHECR single source class model with the K-EUSO orbital telescope

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KLYPVE-EUSO (K-EUSO) is a planned orbital detector of ultra-high energy cosmic rays (UHECRs), which is to be deployed on board the International Space Station. K-EUSO is expected to have an almost uniform exposure over the celestial sphere and register from 120 to 500 UHECRs at energies above ~ 57 EeV in a 2-year mission. We employ the CRPropa3 package to estimate prospects of testing the UHECR single source class model by Kachelriess, Kalashev, Ostapchenko and Semikoz (2017) with K-EUSO in terms of the large-scale anisotropy. According to the simulations, K-EUSO will be able to probe the model in case it records ~ 200 or more events and the from-source flux constitutes $\sim 20\%$ of the whole data set.

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