

CORRELATIONS OF ARRIVAL DIRECTIONS OF ULTRAHIGH ENERGY COSMIC RAYS WITH THE LARGE-SCALE STRUCTURE OF THE UNIVERSE

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The analysis results of arrival directions of cosmic rays with the energy $E_0 \geq 10^{18}$ eV and zenith angles $\theta \leq 45^\circ$ registered at the Yakutsk array for 1974–2000 are presented. It is found that the increased particle fluxes with the $(4-5)\sigma$ excess relative to the expected levels for random distribution are observed from the Galaxy's plane at $E_0 \approx (2-4) \times 10^{18}$ eV and from the Supergalaxy at $E_0 \geq 8 \times 10^{18}$ eV.