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Sensitivity of the orbiting JEM-EUSO mission to large-scale anisotropies THOMAS WEILER, Vanderbilt University, LUIS ANCHORDOQUI, University of Wisconsin - Milwaukee, PETER DENTON, Vanderbilt University — Uniform sky coverage and very large apertures are advantages of future extreme-energy, space-based cosmic-ray observatories. In this talk we will quantify the advantage of an all-sky/ 4π observatory such as JEM-EUSO over the one to two steradian coverage of a ground-based observatory such as Auger. We exploit the availability of spherical harmonics in the case of 4π coverage. The resulting $Y(lm)$ coefficients will likely become a standard analysis tool for near-future, space-based, cosmic-ray astronomy. We demonstrate the use of $Y(lm)$'s with extractions of simulated dipole and quadrupole anisotropies. (A dipole anisotropy is expected if a single source-region such as Cen A dominates the sky, while a quadrupole moment is expected if a 2D source region such as the Supergalactic Plane dominates the sky.)

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