

ORIGIN OF THE KNEE IN THE COSMIC RAY SPECTRUM

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Recent results of extreme-ultraviolet and high energy X-ray observation from clusters of galaxies have suggested the existence of diffuse cosmic ray electrons in the cluster which would have a profound impact on cosmology. If nuclear components also exist around our own galaxy, these components with an energy above $\sim 10^{15}$ eV might be directly observable after modulated by the galactic wind. We report on the numerical results of the modulated energy spectrum of the hypothetical cosmic rays and discuss their implications for the origin of the “knee”.