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A deconvolution technique, to measure proton cross-section at ultra-high energies using cosmic ray data. KONSTANTIN BELOV, University of Utah, THE HIGH RESOLUTION FLY'S EYE (HIRES) COLLABORATION — Extensive air showers are induced when ultra-high energy cosmic ray particles enter the earth atmosphere. The distribution of the depth of the air shower maxima can be used to measure the p-air inelastic cross-section. We propose a novel deconvolution measurement technique. We use Monte Carlo simulations to evaluate the technique, and the statistical and systematic errors.

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