

ATMOSPHERIC MONITORING AT HIRES - ANALYSIS TECHNIQUES

HiRes Collaboration

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This talk reviews techniques used at HiRes to extract atmospheric parameters needed to reconstruct air-showers. Much of the HiRes data sample consists of calibration data. This data includes tracks of scattered light from lasers and Xenon "flashers". The amount of observed light is modified by the presence of aerosols. These changes can be modeled to extract parameters including ground level scattering length, total vertical optical depth, and the vertical aerosol profile. These are needed to determine transmission coefficients between the detector and air showers. Aerosol phase functions can also be extracted. These are needed to estimate the contribution of scattered Cherenkov light to the observed air-shower profile.