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Weather effects on the rate of events at the Pierre Auger Observatory ADRIENNE CRISS, PAUL SOMMERS, Penn State, Center for Particle Astrophysics — The Pierre Auger Observatory studies high energy cosmic rays using both a surface detector and a florescence detector. Correcting for weather-induced rate variations is essential before searching for large scale anisotropy patterns. Additionally, weather-induced rate variations may yield clues to the nuclear mass composition of the primary cosmic rays. Here we present how the rate of events (defined as the number of events recorded divided by the exposure) of the surface detector varies with the atmospheric pressure and temperature measured at ground level. We examine the rate dependence on weather at different zenith angles and energies.

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