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Analyzing High Energy Cosmic Rays

Our project is entitled Analyzing High Energy Cosmic Rays. In our project, we wanted to analyze data already taken at the Pierre Auger Observatory in Argentina. With the data available to the public we planned to find out four purposes. First, we wanted to know if when the number of stations an event went through was higher, if the energy level would be higher as well. Second, we wanted to know if when the zero degrees Zenith angle increased, if the energy level would be higher as well. Third, we wanted to analyze the energy level of cosmic rays from the year 2004 and 2008. Finally, we wanted to observe if the Zenith angle would affect the energy level in the year 2004 and 2008 and if the angle the cosmic rays are coming in is changing. First, we hypothesized that if the zero degrees Zenith angle increased, then the energy level would be higher. Third, if you compare data from the year 2004 compared to the year 2008, than the energy level would be higher in 2008. Finally, if between January and February 2004 compared to the year 2008, then we expect the Zenith angle and energy level to be higher. Data gathered came from www.auger.org. We found out that our first, third, and last hypothesizes were correct and that our second hypothesizes were incorrect.