Title:	Muons to Probe Tectonic Activity
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Abstract:	This project is an attempt to observe the events happening at the sun and within the earth's atmosphere and to analyze their effects on muon flux and other incoming radiation. It has been observed that on several occasions, electronic appliances suddenly stop functioning at the same time in certain regions. This is a result of magnetic disturbance in the region which acts as an EMP (Electro Magnetic Pulse). This disturbance is caused by the huge mass of charged particles that are ejected by sun during Coronal Mass Ejection event in form of solar flares. This is accompanied by formation of sun spots on the surface of the sun. Earth is constantly bombarded with charged particles incident on the planet incoming from outer space, with majority of particles coming from the sun. These incoming particles from sun contribute towards Cosmic ray radiation. Therefore, the solar cycle may changes the flux of muon over the region of earth. These Cosmic Rays have the potential to cause far reaching changes to the atmosphere of the planet among other things. Changes in the flux of this radiation is mainly caused due to events taking place at the sun in the form of solar activity which includes solar flares, sun spots, Radiation flux, magnetic changes etc. In this project we are trying to find out the effects of these phenomena on the muon flux incident on earth along with any effects caused due to atmospheric changes on earth itself. We use the observations of these incoming disturbances and investigate any correlation with the tectonic activity of earth. The occurrence of the two events were compared by statistical tests to look for similarities in the pattern of the time series data.
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