

THE FIRST OUTCOME ON THE 3-D FEATURE OF FORBUSH DECREASE EVENTS FROM LARGE MUON TELESCOPE OF GRAPES III AT OOTY

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We have observed several Forbush decrease events during 1999 and 2000 with Large Muon Telescope of the GRAPES III shower array at Ooty (800g/cm^2). Our telescope is rather unique with its very large detection area, total area of 560m^2 (16 units of 35m^2 each) and good angular resolution, less than 8 degrees. We present the 3-D structure of Forbush decrease events and their time profiles in great details. We found some distinct features in their structures. Some of the CME (Coronal Mass Ejection) from the Solar flares can cause these Forbush decrease events. We discuss these results in terms of the direction and speed of Coronal Mass Ejection directed toward the Earth as deduced from our observations with the Ooty Muon Telescope and other group's data.

Using the big advantage of our high counting rate telescope, we would like to mention about the possible cause of short term (several to several ten days) variation of cosmic rays intensity in connection with Solar wind velocity and inter planetary magnetic field etc.