

# **Solar diurnal variation of galactic cosmic rays: Possible interpretation of >100 GV anisotropies**

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Recent observations of the Matsushiro deep underground muon telescope indicate that, the solar diurnal variation (corrected for the Compton-Getting anisotropy due to the Earth's orbital motion) has a solar cycle variation and a 0.04% wave extends to rigidities as high as several hundreds of GV during solar maximum. We construct a simple model to simulate the motion of high-rigidity particles in the heliosphere assuming different heliospheric current sheet (HCS) configurations. We find that a highly tilted and warped sheet may result in an anisotropy, comparable to that observed at Matsushiro around  $\sim 600$ GV. The phase of the observed and simulated anisotropies will be compared and discussed.