Energy spectrum for the solar neutron event of September 7 2005, derived from the SNT at Sierra Negra

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Abstract: The Solar Neutron Telescope (SNT) at Mt. Sierra Negra in Mexico (19.0°N, 97.3°W) is taking data since June of 2004. A solar neutron event was registered by this SNT, associated with the flare of September 7 of 2005, at the minimum phase of solar cycle 23. In this work we calculate the energy spectrum for this solar neutron event, using the attenuation model by Dormán & Valdés-Galicia (J. Geophys. Res. 495, 1999), and the detector efficiency calculation of Valdés-Galicia (Nucl. Inst. Meth., A535, 656, 2004).

Introduction
Electric Storm Effects on the Cosmic Ray