

## Abstract\*

This report presents observational results of cosmic ray meson intensity obtained with the multi-directional cosmic ray telescope at Tsukuba ( $36.1^{\circ}\text{N}$ ,  $140.1^{\circ}\text{E}$ ) during 1983–1986. The multi-directional cosmic ray telescope contains 32 detectors, which are set in 4 layers (8 detectors in each layer). Having twofold coincidence from a pair of detectors and having further coincidences and mixings, seven components, i.e., vertical,  $22^{\circ}\text{south}$ ,  $22^{\circ}\text{north}$ ,  $34^{\circ}\text{west}$ ,  $19^{\circ}\text{west}$ ,  $19^{\circ}\text{east}$ , and  $34^{\circ}\text{east}$ , of cosmic ray meson intensity are obtained. Each detector consists of 4 plastic scintillators ( $500\text{ mm}\times 500\text{ mm}\times 100\text{ mm}$ ), making up a  $1\text{ m}^2$  effective area, a 5-inch photo-multiplier, and a pre-amplifier. To absorb the soft component of cosmic rays, there are 100 mm thick lead (Pb) blocks between the lower two layers. Figures present hourly values of cosmic ray meson intensity for vertical (3 kinds) and other 6 components for each month during 1983–1986. Tables present hourly values of cosmic ray meson intensity for vertical,  $19^{\circ}\text{west}$ , and  $19^{\circ}\text{east}$  components for each month of the same period. All values are pressure corrected in natural logarithmic representation (%).

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