

## STUDY OF THE ARRIVAL TIME STRUCTURE OF SERIAL AIR SHOWERS

N. Ochi (1), A. Iyono (2), T. Nakatsuka (3), T. Okada (1), T. Wada (1), I. Yamamoto (2), Y. Yamashita (1), Y. Yanagimoto (1) and Large Area Air Shower (LAAS) group (4)

(1) Department of Physics, Okayama University, Okayama 700-8530, Japan, (2) Okayama University of Science, Okayama 700-0005, Japan, (3) Okayama Shoka University, Okayama 700-8601, Japan.

`ochi@cr2000.phys.okayama-u.ac.jp`

The arrival time structure of serial cosmic rays is carefully examined, using air shower data from six stations of the Large Area Air Shower (LAAS) group in Japan. This study is motivated by reports of the observation of non-random structure in arrival times of serial air showers. We count the number of air showers ( $N$ ) observed within short time windows and compare it with the Poisson distribution. The observed  $N$  distribution almost agrees with the Poisson as expected from the conventional view of completely random structure of serial cosmic rays. However, a small but intriguing discrepancy between them is found in the largest- $N$  range. The formation mechanism of this anomalous feature will be also discussed in the conference.