

DIRECTION DISTRIBUTIONS OF AIR SHOWERS OBSERVED WITH THE TURKU AIR SHOWER ARRAY

A.-M. Elo (1) and H. Arvela (2)

(1) Department of Physical Sciences, Linnanmaa, P.O. Box 3000, FIN-90014 UNIVERSITY OF OULU, Finland, (2) Laboratory of Electronics and Information Technology, Department of Applied Physics, University of Turku, FIN-20014 UNIVERSITY OF TURKU, Finland.

In the Turku air shower array there were four Fast Timing (FT) detectors for the determination of the shower arrival direction. Three of them were located in the apices of an equilateral triangle, whose sides were app. 17 metres. The fourth FT lay in the centre of the triangle. The four-fold coincidence of the FT pulses was used as a shower trigger. The hit times of shower particles on the FT's were recorded relative to the central FT.

The air shower arrival direction is determined using the relative timing data of the FT's and assuming a planar shower front. In this paper we determine the arrival direction distributions using the shower data obtained with the Turku air shower array. The results are discussed.