A NEW PHENOMENOLOGICAL MODE OF MULTIPLE PARTICLE PRODUCTION TO DESCRIBE DATA OF EMULSION CHAMBERS AND AIR SHOWERS

A. Ohsawa(1), E.H. Shibuya(2) and M. Tamada(3)
(1) ICRR, Univ. of Tokyo, (2) IFGW, UNiv. Estadual de Campinas, (3) Facu

The energy distribution of produced particles in multiple particle production, formulated on the basis of the data of direct observation, is found not to describe the highest energy air showers of 10^{20} eV.
We formulate a new model of multiple particle production and discuss how the model describes the cosmic ray data of 10^{15} - 10^[17} eV which are obtained by mountain emulsion chamber experiments and by air shower experiments.