AROUND THE VALIDITY OF THE THINNING METHOD IN THE SIMULATION OF ELECTROMAGNETIC CASCADE SHOWER — THE APPLICATION TO THE LPM SHOWER —

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Recently, thinning method has been widly utilized for air shower simulation to save computation time, keeping some accuracies on the calculation. In particular, this technique is applied to the calculation of the LPM shower, namely, to huge electromagnetic cascade shower. Surely, the results obtained by this method could give rather accurate values as for the average values, while it could not give accurate result as for the individual shower. In this paper, we compare the individual shower by exact Monte Carlo method and corresponding ones by the thinning method in the both case of the BH shower and the LPM shower.