A SIMULATION FOR LASER SCATTERING EXPERIMENT AND A CLOUD MONITORING FOR TELESCOPE ARRAY ATMOSPHERIC MONITORING


(1) Department of Physics, Kinki University, Osaka 577-8502, Japan, (2) Institute for Cosmic Ray Research, University of Tokyo, Chiba 277-8582, Japan, (3) Department of Physics, Osaka City University, Osaka 558-8585, Japan, (4) Communications Research Laboratory, Ministry of Posts and Telecommunications, Tokyo 184-8795, Japan.

R&D of atmospheric monitoring for the Telescope Array Project has been studied at Utah, USA and at Akeno, Japan. As a part of these R&D, a simulation for laser scattering experiment to understand atmospheric properties and a cloud monitoring to determine the fiducial volume for the detection area using infra red camera have been studied. According to a simple simulation study, the calculation result is in good agreement with the experimental data qualitatively. As to cloud monitoring, a basic method to recognize the cloud region is trying to established. In this report some preliminary results for these R&D are presented in brief.