

Hsien-Chi Yeh, Yu-Qiang Li, Yun He, Qi Liu, Hui-Zong Duan, Wei Tian

Large corner-cube retroreflector and laser ranging for Chang'e-4 relay satellite

Since the Chang'e-4 is a lunar farside landing mission, a communication relay satellite is needed and planned to be orbiting around the lunar L2 point. A single corner-cube retroreflector with an aperture of 17-cm is designed and manufactured for laser ranging of Chang'E-4 relay satellite. The objectives of this experiment include: (1) performing laser ranging over a distance of about 4.5×10^5 km; and (2) testing the performance of the single hollow corner-cube retroreflector which is the prototype of next-generation lunar retroreflector. In this talk, we will present the mission concept and our current progress.