THE RESEARCH OF ROTATING SHUTTER CONTROL METHOD FOR 1.2M TELESCOP SLR SYSTEM.

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Abstract: Analyzed the phenomenon of Transmitting and Receiving Epoch Overlapping in Kunming Station's 1.2m Telescope Common Optical–Path High Frequency Laser Ranging System, and simulated this phenomenon by the computer. Simulation result indicated the overlap rate of the near-Earth satellite is about 7%, the high orbit target is slightly higher but still less than 8% and the lunar is about 10%. In order to decreace the overlapping events, to analyze and research the characteristics of rotation shutter, then the overlapping condition and new compter control methods of rotation shutter were obtained, which were tested by actual satellite orbit tracking experiments. As a result, the overlapping probability is greater than 5.0% when the rotation shutter was not controlled by computer, otherwise the overlapping rate is less than 0.5% and improve efficency of the co-optical path satellite laser ranging system.