

Conceptual Design of Primary Mirror Cover for the proposed 2m class National Large Solar Telescope

The National Large Solar Telescope (NLST) is proposed to be built in India which will be one of the most powerful telescopes to study the Sun. It will have a 2m size primary mirror. The primary mirror needs a removable cover to carry out two important functions: first one is to protect primary mirror from environmental conditions when the telescope is not in operation and second one is to prevent dangerous concentrated solar radiation from primary mirror arriving directly to secondary mirror or any part of the telescope structure without passing through the heat rejecter when the telescope points to an unintended direction due to some malfunctioning of the drive control system.

Few design concepts worked out for this primary mirror cover along with their drive mechanisms for the 2m NLST are presented in this paper.

Keywords: Primary Mirror Cover, National large Solar Telescope