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Generally, validation is very important and crucial for modelling. For climate modelling, global data coverage is necessary. In this point, role of remote sensing cannot be neglected. Following the above idea, role of space-lidar technique will be reviewed.

Although space lidar technique can give us a lot of information about various physical quantities, it is suitable for lidar to observe cirrus cloud, moisture and aerosol. Especially, a wind measurement by using LAWS is very ambitious ,because we can get a wind information in the cloud-free region.

Next, it is very important to observe a cloud structure, that is, overlapping and/or separating, which exert a great influence for radiation calculation in the model. However,it is doubtful whether these information can be sufficiently given by the space-lidar technique. The accurate determination of cloud top is most promising quantity, which is helpful to diagnose a performance of convection scheme in the model.