

Ground-based aerosol optical depth measurements

Abstract

This chapter presents a detailed overview on the theory of aerosol optical depth retrieval with the emphasis on ground-based sunphotometry technique. To further discuss on the calibration issue as mentioned previously, this overview also includes the principle of the oldest passive ground-based calibration method, Langley calibration to provide an insight on the working mechanism of the method. The final part in this chapter compiles the previous existing Langley calibration method in a chronological sequence to render a better comprehension on its development from the past to present time.