

Special Seminar

Friday, 10 April 2015, 14:00 – 16:00, Room S1360

Lecturer: Prof. Stephen Wilson, University of Wollongong, Australia

Title: Looking up down under - solar radiation measurements in Australia.

Abstract:

Cape Grim was established to monitor changes in the background atmosphere at a location representative of a large fraction of the southern hemisphere. Activity at the site have included various forms of solar radiation since the late 1970s. Aerosol optical depth has been measured using automated sun photometers since 1986, using a range of instruments. The results of the work on harmonising this data set for the period 1986 - 2014 will be presented, and the key drivers of the optical depth at Cape Grim will be discussed.

Two other optical measurements probe the reactive chemistry at the site. Firstly, UV-B measurements have been used to derive $J(O_1D)$ photolysis rates for a 6 year period, and MAX-DOAS measurements have just begun. These measurements will be discussed in the context of both the physical nature of the site and the other measurement programs being undertaken.