

venerdì 9 novembre in aula Careri

ore 13.00 : Seminario della vincitrice della procedura valutativa a PA SSD FIS/06 Dr.ssa Anna Maria Siani

Titolo: A quarter-century of total ozone and solar UV measurements at Sapienza Università di Roma

Abstract:

Although ozone (O₃) is present in relatively small amounts in the terrestrial atmosphere, it plays a crucial role in the attenuation of solar ultraviolet (UV) radiation (200 - 400 nm) relevant for human health and in radiative processes controlling the Earth's energy budget. The most widely deployed ground-based instruments estimating total column ozone are Dobson and Brewer spectrophotometers, specifically designed to retrieve the total column ozone by measuring UV irradiances of direct sunlight attenuated by the ozone absorption. At the Solar Radiometry Observatory of Sapienza Università di Roma, total ozone contents and UV irradiances have been systematically collected by a Brewer spectrophotometer since 1992. The relevant features of such a long (25 years) data collection will be discussed underlining that long-term series of the total ozone content and UV irradiance from ground-based stations are necessary in order to:

- validate the satellite-derived products,
- investigate the long-short term ozone and UV variability,
- investigate the effects on human health induced by changes in exposure to solar UV radiation.