1. Record Nr. UNINA9910454662203321 Autore Wheelon Albert D (Albert Dewell), <1929-2013, > Titolo Electromagnetic scintillation . Volume 1 Geometrical optics / / Albert D. Wheelon [[electronic resource]] Cambridge:,: Cambridge University Press,, 2001 Pubbl/distr/stampa **ISBN** 1-107-12291-0 0-511-01338-8 1-280-43316-7 9786610433162 0-511-17436-5 0-511-15418-6 0-511-30359-9 0-511-53480-9 0-511-04773-8 Descrizione fisica 1 online resource (xviii, 455 pages) : digital, PDF file(s) Disciplina 539.2 Electromagnetic waves - Transmission Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto 1. Geometrical optics. Sommario/riassunto Electromagnetic Scintillation describes the phase and amplitude fluctuations imposed on signals that travel through the atmosphere. The volumes that make up Electromagnetic Scintillation will provide a modern reference and comprehensive tutorial, treating both optical and microwave propagation and integrating measurements and predictions at each step of the development. This first volume deals with phase and angle-of-arrival measurement errors, accurately described by geometrical optics. It will be followed by a further volume examining weak scattering. In this book, measured properties of tropospheric and ionospheric irregularities are reviewed first. Electromagnetic

fluctuations induced by these irregularities are then estimated for a wide range of applications. The book will be of interest to those working in the resolution of astronomical interferometers and large

single-aperture telescopes, as well as synthetic aperture radars and laser pointing/tracking systems. It is also directly relevant to those working in laser metrology, GPS location accuracy, and terrestrial and satellite communications.