SOLAR PHOTOSPHERE: STRUCTURE, CONVECTION AND MAGNETIC FIELDS

J. O. STENFLO (ED.)

Solar and stellar photospheres constitute the layers most accessible to observation, forming the interface between the interior and the outside of the stars. The physics of the photosphere involves complicated interactions between magnetic fields, convection, waves, and radiation. During the past decade our understanding of these generally small-scale structures and processes has been dramatically improved. New instrumentation, on the ground and in space, have provided a clearer view, new diagnostic methods have allowed us to probe beyond the limitations of spatial resolution, and extensive numerical simulations using powerful super-computers have deepened our physical insight. Granulation, magnetic fields, and dynamo processes are being explored in the photospheres of other stars, guided by our improved understanding of the solar photosphere. The present volume provides a comprehensive and up-to-date account of this rapidly developing field of science.

KLUWER ACADEMIC PUBLISHERS

DORDRECHT / BOSTON / LONDON