Record Nr. UNISA996466813103316 Stellar Turbulence [[electronic resource]]: Proceedings of Colloquium **Titolo** 51 of the International Astronomical Union, Held at the University of Western Ontario, London, Ontario, Canada, August 27-30, 1979 / / edited by D.F. Gray, J.L. Linsky Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 1980 **ISBN** 3-540-38554-1 Edizione [1st ed. 1980.] Lecture Notes in Physics, , 0075-8450; ; 114 Collana Disciplina 520 Observations, Astronomical Soggetti Astronomy—Observations **Astrophysics** Astronomy, Observations and Techniques Astrophysics and Astroparticles Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di contenuto Stellar convection theory -- Instabilities in a polytropic atmosphere --On the dynamics of the solar convection zone -- Thermal and continuum driven convection in B-stars -- The height dependence of granular motion -- Numerical simulation of the solar granulation --Differential rotation in stars with convection zones -- Generation of oscillatory motions in the stellar atmosphere -- The evolution of an average solar granule -- Observed solar spectral line asymmetries and wavelength shifts due to convection -- Differential line shifts in late type stars -- Temporal and spatial fluctuations in widths of solar EUV lines -- Formation of the profiles of absorption lines in the inhomogeneous medium -- The determination of stellar turbulence by low resolution techniques -- Analysis of high resolution stellar line profiles -- Examples of non-thermal motions as seen on the sun --Diagnostic use of FE II H & K wing emission lines -- Turbulence in main

sequence stars -- Observational aspects of macroturbulence in early type stars -- Photospheric Macroturbulence in late-type stars --

Depth-dependence of turbulence in stellar atmospheres -- Turbulence

in the atmospheres of eclipsing binary stars -- Differential line-shifts -- Time dependence of Balmer progression in the spectrum of HD 92207 -- Microturbulence: Age dependences -- High luminosity F-K stars motions and H? emissions -- Turbulence in the atmosphere of Btype starsmissions -- Mesoturbulence -- Stochastic approach -- The application of mesoturbulence to stellar atmospheres -- Effects of acoustic waves on spectral line profiles -- Some effects of strong acoustic waves on strong spectral lines -- Numerical simulation of granular convection: Effects on photospheric spectral line profiles --Mechanical energy transport -- Stellar chromospheres -- Observations of the outer atmospheric regions of? Orionis -- Stellar-winds and coronas in cool stars -- Relationship between envelope structure and energy source of non-thermal motions -- An analysis of microturbulence in the atmosphere of the F-type supergiant gamma cygni -- The solar chromospheric microturbulence and the emission observed at eclipse -- Excitation dependent gf-values and depth dependent microturbulences -- On the structural and stochastic motions in the solar and stellar atmospheres -- I U E observations of circumstellar lines and mass loss from B-star -- On the establishment of internally consistent abundance-oscillator strength scales --Differential rotation and magnetic activity of the lower main sequence stars -- Changes of photospheric line asymmetries with effective temperature -- Small-scale versus large scale motions in the solar atmosphere derived from a non-LTE calculation of multiplet 38 of Ti I -- Effects of flux tubes on conventional chromospheric diagnostics --Summary.