

1. Record Nr.	UNINA9910257436303321
Titolo	White Dwarfs [[electronic resource] ] : Proceedings of IAU Colloquium No. 114, Held at Dartmouth College, Hanover, New Hampshire, USA, August 15–19, 1988 // edited by Gary Wegner
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1989
ISBN	3-540-46136-1
Edizione	[1st ed. 1989.]
Descrizione fisica	1 online resource (XIV, 526 p. 166 illus.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 328
Disciplina	523.8/87
Soggetti	Observations, Astronomical Astronomy—Observations Astrophysics Geophysics Astronomy, Observations and Techniques Astrophysics and Astroparticles Geophysics/Geodesy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Mass distribution and luminosity function of white dwarfs -- The luminosity function of white dwarfs in the local disk and halo -- Two new late-type degenerates: Implications for the white dwarf luminosity function -- Pre-white dwarf evolution: Up to planetary nebulae -- Evolution of white dwarfs: Starting from planetary nebulae -- On the structure of pre-white dwarfs -- Transport processes and neutrino emission processes in the interior of white dwarfs -- The effect of Coulomb interactions on the helium flash -- Equations of state of hydrogen-helium and carbon-oxygen mixtures -- Gravitational collapse of mass-accreting white dwarfs -- The temperatures of white dwarfs in accreting binaries -- White dwarf evolution in real time: What pulsating white dwarfs teach us about stellar evolution -- The whole earth telescope -- The effects of time dependant convection on white dwarf radial pulsations -- PG 1707+427: The DOV star with the simplest fourier transform -- Observations of cold degenerate stars --

Two new faint common proper motion pairs -- Cluster analysis of the hot subdwarfs in the PG survey -- An unsuccessful search for white dwarf companions to nearby main sequence stars -- The Bologna/ESO search for double degenerates -- Far ultraviolet observations of hot DA white dwarfs -- Far-ultraviolet spectrophotometry of two do white dwarfs from Voyager -- A spectrophotometric atlas of white dwarfs compiled from the me archives -- Scaleheights of low mass stars from the luminosity function of the local white dwarfs -- ROSAT — an all-sky X-ray and EUV survey of white dwarfs -- Results of a spectrophotometric survey of white dwarf suspects in the solar neighbourhood -- Three double degenerate candidates -- The ccd/transit instrument (CTI) blue objectsurvey -- Low mass hydrogen envelopes and the DB gap -- Diffusion and metal abundances in hot white dwarfs -- Helium abundance in the photospheres of hot DA white dwarfs -- Non-LTE spectral analysis of PG 1159-035 -- X-ray emission from hot DA white dwarfs; EXOSAT results, and implications for atmospheric models -- The effect of CNO metal abundances on the soft X-ray emission from HE rich white dwarfs -- Chemical stratification in white dwarf atmospheres and envelopes -- Origin of the DA and non-DA white dwarf stars -- Model atmospheres for very cool hydrogen-rich white dwarfs -- An ultraviolet look at the blue edge of the ZZ ceti instability strip -- Spectroscopic studies and atmospheric parameters OF ZZ Ceti stars -- Finite element analysis of diffusion processes in white dwarfs -- Heavy element abundances predicted by radiative support theory in the atmospheres of hot white dwarfs -- Second-order effects due to rotation in pulsating DR white dwarfs -- Are pulsations a useful probe of the structure of the outer layers of white dwarfs ? -- Cooling of white dwarfs with account of non-equilibrium beta-processes -- Thermonuclear explosion in binaries: White dwarf helium star -- The phase diagram of high density binary mixtures and the luminosity function of single white dwarfs -- A variational approach to understanding white dwarf evolution -- The effect of varying helium and hydrogen layer masses on the pulsation properties of white dwarf models -- Discovery of the sixth dbv star: CBS 114 -- Optical frequencies in V471 Tau -- The time dependence of the phases of the harmonics relative to the 1490 sec fundamental in PG1346+082 -- A new hydrogen equation of state for low mass stars -- Magnetic fields in white dwarfs -- The magnetic white dwarfs in AM Her variables -- Evidence of complex field structure in the magnetic white dwarf in EXO 033319-2554.2 -- Phase correlated spectra of magnetic white dwarfs -- Synthetic spectra of magnetic white dwarfs -- Masses and magnetic fields of white dwarfs in cataclysmic variables -- G117-1115A: how is it evolving? -- Pressure shifts of metal lines in cool white dwarfs -- A new temperature determination for sirius B from IUE: Implications for the observed soft X-ray fluxes -- The detection of ionized helium and carbon in the pulsating DB degenerate GD358 -- Time-dependent studies of the settling of heavy elements in the envelopes of cool white dwarfs -- The atmospheric composition of the hot pre-degenerate star H1504+65 revisited -- Stratified model atmospheres for not DA white dwarfs -- An explanation for the euV spectrum of feige 24 -- Gravitational redshifts for hyades white dwarfs -- The high resolution spectrum of the pulsating, pre-white dwarf star PG 1159-035 (GW VIR) -- Polarized radiation from inhomogeneous accretion columns in am herculis binaries -- Thomson scattering in magnetic fields -- H-alpha emission in hot degenerates and OB subdwarfs -- Gravitational redshifts and the mass-radius relation -- The search for close binary evolved stars -- The nearby binary, Stein 2051 (G175-34AB) -- White dwarfs in globular clusters -- Toward a

determination of the helium abundance in cool DA white dwarfs -- Constraints on the atmospheric parameters of the binary DA white dwarf L870-2 (EG11) -- The white dwarf mass and orbital period distribution in zero-age cataclysmic binaries -- The optical spectra of V803 Cen -- The period problem of the interacting binary white dwarf system AM CVn -- Critical mass for merging in double white dwarfs -- On the separations of common proper motion binaries containing white dwarfs -- Time resolved spectroscopy of AM CVn -- High frequency oscillations in SS CYGNI -- The mass spectrum of the white dwarfs in cataclysmic binaries -- Evolution of low-mass helium dwarfs in interacting binaries: Application to 4UI820-30 -- Binary, pulsating, and irregular variables among planetary nuclei -- On the formation of close binary white dwarfs -- A limit on the space density of short-period binary white dwarfs -- On the masses of the white dwarfs in classical nova systems -- Growth rate of white dwarf mass in binaries -- Dynamic mass exchange in doubly degenerate binaries. II. The importance of nuclear energy release -- The coalescence of white dwarfs and type I supernovae -- White dwarf — accretion disk boundary layers -- High resolution optical spectra of 120 white dwarfs.

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Sommario/riassunto

This book contains the contributed papers and reviews from IAU Colloquium Number 114 on White Dwarfs held at Dartmouth College in August 1988. All the current fields of research in this area are covered including the evolution of white dwarfs, links to progenitors, luminosity functions of white dwarfs, evolution of white dwarfs in binaries, spectroscopy and atmospheric abundances, diffusion, accretion and convective mixing, the mass-radius relation, gravitational redshifts, masses of white dwarfs, and magnetic white dwarfs. Special emphasis has been placed on the intrinsic properties of single white dwarfs. All the articles are by internationally known authorities and contain the most up-to-date information available at the time of writing.

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