Record Nr. UNINA9910257417303321 Supersoft X-Ray Sources [[electronic resource]]: Proceedings of the **Titolo** International Workshop Held in Garching, Germany, 28 February – 1 March 1996 / / edited by Jochen Greiner Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa **ISBN** 3-540-68512-X Edizione [1st ed. 1996.] 1 online resource (XIII, 354 p. 59 illus.) Descrizione fisica Lecture Notes in Physics, , 0075-8450;; 472 Collana 523.8 Disciplina Soggetti Observations, Astronomical Astronomy—Observations **Astrophysics** Astronomy, Observations and Techniques Astrophysics and Astroparticles Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto On the evolution, numbers and characteristics of close-binary supersoft sources -- White dwarfs with H/He burning as supersoft Xray sources -- Hot high-gravity NLTE model atmospheres applied to supersoft sources -- Luminous supersoft X-ray sources in globular clusters -- The integrated X-ray spectrum of galactic populations of luminous supersoft X-ray sources -- Neutron stars can do it too if they want to -- SSSs as progenitors of the BHCs -- Simulation of the visual

supersoft sources -- White dwarfs with H/He burning as supersoft X-ray sources -- Hot high-gravity NLTE model atmospheres applied to supersoft sources -- Luminous supersoft X-ray sources in globular clusters -- The integrated X-ray spectrum of galactic populations of luminous supersoft X-ray sources -- Neutron stars can do it too if they want to -- SSSs as progenitors of the BHCs -- Simulation of the visual light curve of CAL 87 -- Accretion disks in supersoft X-ray sources -- Supersoft X-ray sources in M31 -- X-ray and optical observations of RX J0925.7-4758: Constraints on the binary structure -- The X-ray energy spectrum of RX J0925.7-4758 with ASCA -- Optical photometry of RX J0019.8+2156 over the last three years -- Phase resolved UV spectroscopy of RX J0019.8+2156 -- Optical spectroscopy of RX J0439. 8-6809 and 1E 0035.4-7230 -- Photometric observations of supersoft sources in the LMC -- Optical light curve and binary period of the supersoft X-ray transient RX J0513.9-6951 -- Non-LTE model atmosphere analysis of the supersoft X-ray source RX J0122.9-7521 -- Implications of light metals (Li?Ca) on NLTE model atmospheres for hot

stars -- The long-term X-ray lightcurve of RX J0527.8-6954 --Interpretation of the long-term optical variations of RX J0019.8+2156 -- ROAST monitoring of the LMC supersoft transient source RX J0513. 9-6951 -- Optical variability of the LMC supersoft source RX J0513.9-6951 -- Optical and X-ray variability of supersoft X-ray sources --Type Ia supernovae and supersoft X-ray sources -- Luminous supersoft X-ray sources as progenitors of type Ia supernovae -- A new model for progenitors of type la supernovae and its relation to supersoft X-ray sources -- Transient and recurrent supersoft sources as progenitors of type Ia supernovae and of accretion induced collapse -- ROSAT observations of symbiotic binaries and related objects -- X-ray properties of symbiotic stars: I. The supersoft symbiotic novae RR tel and SMC3 (=RX J0048.4-7332) -- Multiwavelength observations of the symbiotic star AG dra during 1979–1995 -- UV and X-ray monitoring of AG draconis during the 1994/1995 outbursts -- A candidate isolated old neutron star -- A systematic search for supersoft X-ray sources in the ROSAT all-sky survey -- A search for optical counterparts to supersoft X-ray sources in the ROSAT pointed database -- Catalog of luminous supersoft X-ray sources.

Sommario/riassunto

Observations with X-ray satellite ROSAT over the past 5 years have established supersoft X-ray sources as a new class of objects in our Galaxy and beyond. Optical follow-up observations have revealed the binary nature of several of them. Recent population synthesis calculations have shown that the number of such binaries is expected to be considerably larger than those of the common low- and high-mass X-ray binaries. This book provides the first comprehensive overview of the many recent observational discoveries and theoretical investigations. It describes relations between supersoft sources and other areas in astrophysics. This volume also comprises a complete catalog of presently known supersoft sources including a comprehensive bibliography of observational results.