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Autore	Yuasa Takayuki
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Nota di contenuto	Review of the Galactic X-ray Background Emission and White Dwarf Binaries -- Constructing an X-ray Model of Accreting White Dwarf Binaries -- Instrumentation -- Estimating the Masses of White Dwarfs in Magnetic Cataclysmic Variables -- Decomposing the Galactic Ridge X-ray Emission.
Sommario/riassunto	This thesis presents a study of the origin of an apparently extended X-ray emission associated with the Galactic ridge. The study was carried out with broadband spectra obtained from mapping observations in the Galactic bulge region conducted in 2005–2010 by the Suzaku space X-ray observatory. The spectra were analyzed with a newly constructed X-ray spectral model of an accreting white dwarf binary that is one of the proposed candidate stars for the origin of the Galactic ridge emission in the higher energy band. Fitting of the observed Galactic ridge spectra with the model showed that there is another spectral component that fills the gap between the observed X-ray flux and the component expected from the accreting white dwarf spectral model in

the lower energy band. This additional soft spectral component was nicely explained by an X-ray spectral model of normal stars. The result, together with previously reported high-resolution imaging results, strongly supports the idea that the Galactic ridge X-ray emission is an assembly of dim, discrete X-ray point sources.