

The time evolution of roll-off frequency of the synchrotron spectrum from youngest Galactic supernova remnant G1.9+0.3 using *Suzaku*

Aytap Sezer^{1*}, Ryo Yamazaki^{2†}, Yutaka Ohira^{2‡}

¹Department of Electrical-Electronics Engineering, Faculty of Engineering and Architecture, Avrasya University, 61250 Trabzon, Turkey

²Department of Physics and Mathematics, Aoyama Gakuin University, 5-10-1 Fuchinobe, Sagamihara 252-5258, Japan

G1.9+0.3 is the youngest known Galactic supernova remnant (SNR) and dominated by X-ray synchrotron emission. Synchrotron X-rays can be a useful tool to study the electron acceleration in young SNRs. The X-ray spectra of young SNRs give us information about the particle acceleration at the early stages of evolution of SNRs. In this work, we investigate the time evolution of roll-off frequency of the synchrotron spectrum from SNR G1.9+0.3 using *Suzaku*. For this analysis we use ~ 101 ks (2011) and ~ 92 ks (2015) observations with the X-ray Imaging Spectrometer. We present the results of our analysis and interpretations about the time evolution of roll-off frequency of the synchrotron spectrum from SNRs.

*E-mail: aytap.sezer@gmail.com

†E-mail: ryo@phys.aoyama.ac.jp

‡E-mail: ohira@phys.aoyama.ac.jp