Detail studies of the accretion disk of the black-hole binary LMC X-3 with “Suzaku”

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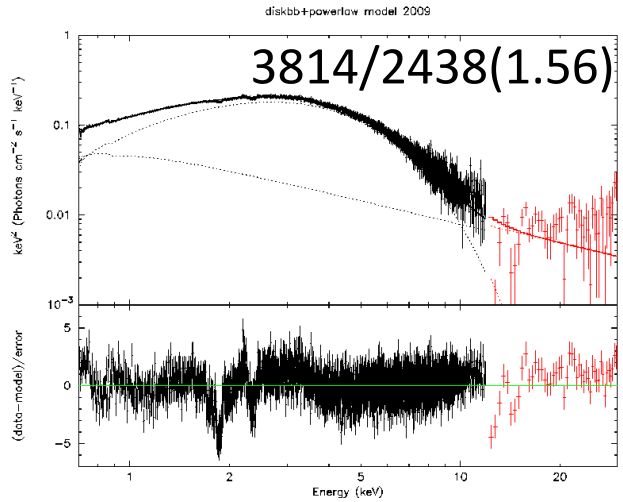
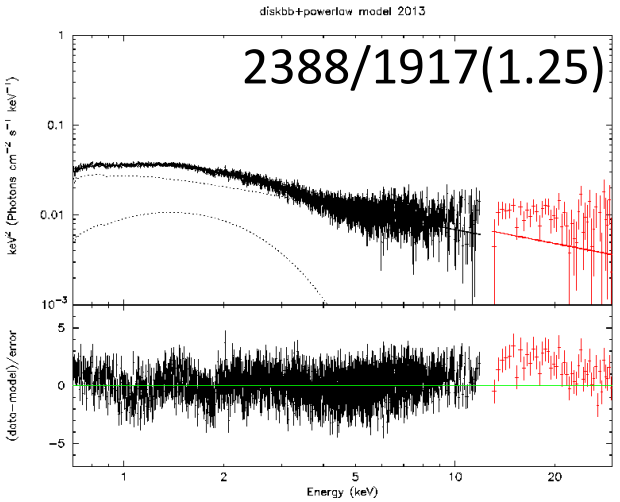
- Using 3 Suzaku observations of LMC X-3, 0.7-30 keV energy spectra are analyzed.
- The obtained physical parameters of the accretion disk (luminosity, inner radius and temperature) show variabilities.



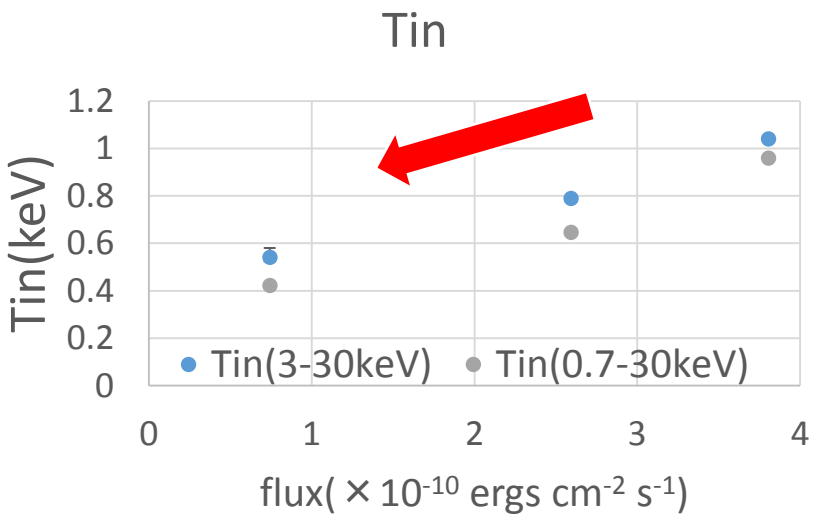
disk emission > powerlaw
→high/soft state

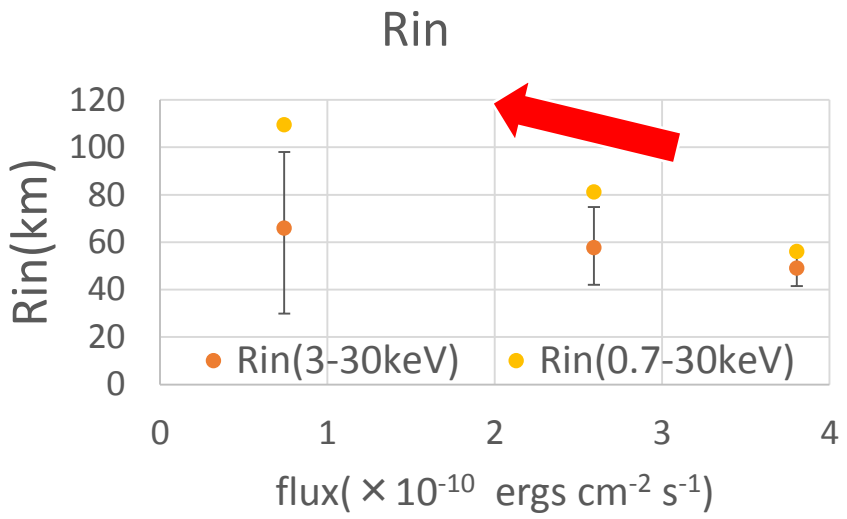


disk emission < powerlaw
→different from high/soft state

Temperature (Tin) and inner radius (Rin) variabilities

Model:diskbb*simpl (considering the disk radiation powerlaw model)





When the luminosity decreases, Tin decreases while Rin increases.

Please see the poster for more details.