

Figure 4. Upper: The unfolded energy spectra corresponding to the peak phase (in red) and the trough phase (in blue) and the corresponding spectral components of the best-fitting models. The solid line shows the total spectrum. The disk component is not shown as it is very weak and negligible. The Compton and reflection components are represented by a dotted line and a dashed line, respectively. Middle: The contributions to the chi-square for the peak and trough spectra. Lower: The ratio between the flux changes between the peak phase and the trough phase in the Compton component and the reflection component (shown as the dashed line), and the QPO fractional RMS vs. energy up to 200 keV (marked in solid square at the lower panel). Here R_P - R_T is the photon flux change of reflection component, and C_P - C_T is the photon flux change of Compton component.

original beats of the LFQPO signal, while the LFQPO amplitude at lower energy bands is primarily contributed by the reprocessed reflection component, which is affected and amplified by the reflection fraction.

Hot accretion flow model has been the popular model to account

for the Compton emission in the hard state of BHXRB (Done et al. 2007). In this model, the accretion geometry is composed of a hot accretion flow inside a truncated disk (Esin et al. 1997). The precession of the hot accretion flow can modulate the Compton emission through self-occultation, projected area and relativistic effects, which