

The study of the circumstance of type B quasi-periodic oscillations (QPO) phenomena

We studied the energy spectral properties of the type B quasi-periodic oscillations (QPOs) and the nearby observations in the SIMS, based on Rossi X-ray Timing Explorer (RXTE)/PCA and HEXTE data of the transient black hole binary GX 339-4 four outbursts (2002,2004,2007,2010). The result shows type B QPOs distribute in the region with relatively smaller inner disk radius and higher power-law flux comparing to the none QPO observations. The power-law component in the energy spectrum originates from up-scattering Compton of soft photons by high energy electron of corona. We suggest that the type B QPO phenomena occur at the circumstance with more violent Compton scattering process.

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