

# **The magnetic field and spin frequency of X-ray neutron star associated with the kHz QPOs**

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The magnetic field and spin frequency of neutron star in low mass X-ray binaries have been studied through considering the accretion induced evolution process, and it is obtained that the magnetic field of X-ray neutron star is proportionally related to the accretion luminosity. Moreover, the homogeneous distribution of kHz QPOs in the less luminous Atoll source and in the bright Z source implies both sources share the similar magnetosphere radii, and it results in a conclusion that the magnetic field of Z source is stronger than that of Atoll source. Therefore, the results of theoretical model are consistent with the implications of kHz QPO observations.