

Accretion Column of the Magnetic Compact Star

Yonggi Kim

Yonsei University Observatory, Seoul 120-749, Korea

The structure of the X-ray emission region in the magnetic compact star has been considered in this paper. We adopt the thermal bremsstrahlung as a major contributor for the cooling mechanism at the stellar surface and calculate the shock height in the accretion funnel of the magnetic compact star. Under a given parameter set, we reexamine the question whether the shock height is always greater (or less) than the radius of the magnetic compact star. The results of this study can be used in modelling of the X-ray and optical radiation in the magnetic compact star.