Magnetohydrodynamic Density Waves in Spiral Galaxies

Yu-Qing Lou
Tsinghua University, China

The background information of stars and galaxies in the cosmos is first described. The physical scenario and the theoretical model framework are then outlined. The basic phenomenology and the key concepts pertinent to density waves and fast and slow magnetohydrodynamic (MHD) density waves for spiral galaxies are presented. Major theoretical results are shown and explained. As examples of astrophysical applications, we discuss multiwavelength diagnostics, hot galactic coronae, inhomogeneous spiral galactic winds, circumnuclear starburst rings in barred spiral galaxies and chains of galaxies among others.

Biography


louyq@tsinghua.edu.cn

Notes: