

[구IM-11] A study of Interstellar Absorption lines towards the early type stars in IC2391 & NGC6475 using UVES POP

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We have studied the interstellar Ti, Ca and Na absorption lines in the spectra of the early-type stars toward NGC 6745 and IC 2391 which were taken from the archive of high-resolution UVES POP(Ultraviolet and Visual Echelle Spectrograph Paranal Observatory hiject). By removing the stellar components and the telluric lines, we obtained interstellar components to estimate the column densities and radial velocity of the components. We have found an interstellar cloud with about 14km/s radial velocity toward IC2391, while an interstellar cloud with about -3km/s radial velocity toward NGC6475.

[구IM-12] Magnetohydrodynamic Turbulence in Stratified Medium

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Magnetohydrodynamic (MHD) turbulence is believed to play an important role in the interstellar medium as well as in the intergalactic medium. While most of previous studies have considered turbulence in uniform media, the stratification of media can play an important role. In order to study the effects of stratification on turbulence, we performed three-dimensional simulations for isothermal, compressible, MHD turbulence with different plasma beta's and different flow Mach numbers in a stratified medium. In this talk, we present the statistical properties of the turbulence, such as the probability distribution function, power spectrum, and structure function.