

[구SF-03] Optical Polarimetry: Mapping magnetic field geometry at the periphery of cloud cores.

Maheswar. G., Lee, C. W.¹, Ramaprakash, A. N.²

*Korea Astronomy and Space Science Institute, 36-1 Hwaam, Yuseong, Daejeon, KOREA,¹
Tawia ASIAA²*

The morphology and strength of the magnetic field within molecular clouds and the magnitude of its effect on the star formation process is still a matter of debate. Submillimeter polarization observations provide the morphology and strength of the field inside the cloud cores. We have initiated a project to map the magnetic field geometry at the periphery of molecular clouds using optical polarimetry to study the field evolution inside and outside of the cloud cores. As a part of the project, we made observations of two cloud cores LDN 1521F and LDN 183. Preliminary results obtained will be discussed in the talk.

[표SF-04] 230 GHz observations of the transition disk system of HD135344

여 아 란

한국천문연구원 (Korea Astronomy and Space Science Institute)

Circumstellar disks surrounding stars are favorite sites for planet formation. However, there is no clear evidence whether all circumstellar disks will form planets or not. The intermediate-age, 5-50 Myr-old stars are suggested as the right places to look for all the most interesting "action" of disk evolution related with planet formation, which is in the transition stage (cold disk) between primordial and debris disks. ~17 Myr-old HD 135344 has been suggested as the one of the rare transition systems based on their far-infrared excess above the expected photospheric flux level and a clear detection of CO emission. We will discuss the result of 230 GHz observation using the SubMillimeter Array (SMA).