Infrared light polarization as a tool to study circumstellar disks dust properties

E. Pantin; Li, D., Zhang, H., Telesco, C., Barnes, P.

Light polarization is a powerful tool to investigate the nature, the shape of dust grains and their interactions with local physical conditions such as the presence of a magnetic field in circumstellar disks.

Very recently, it has been possible, thanks to polarimeters on mid-infrared intruments mounted on large ground-based telescopes, to investigate both the B-field content and some dust properties in the AB Aur protoplanetary disk.

In this talk, I will discuss recent observational results obtained using polarimetric observations, also as their limits and potential degeneracies.