

Exoplanets in Polarized Light

- Advantages of polarized light detection and characterization
 - exoplanet is polarized – star is unpolarized
 - excellent background source rejection
 - sensitive to exoplanet rings, comets, exozodiacal light
 - excellent diagnostics of exoplanet atmospheres, surfaces
- ExPo – the Extreme Polarimeter
 - combines
 - Polarimetry with 10^{-5} sensitivity
 - Optimum signal extraction
 - Coronagraph
 - Adaptive Optics
 - experimental imaging polarimeter
 - first light: October 2008 at 4.2-m William Herschel Telescope
 - major new science results on circumstellar disks
 - potential to image exo-Jupiter
 - pathfinder for VLT/SPHERE and E-ELT/EPICS instruments

