

Future Instrumentation and Observations

Betelgeuse Workshop
2012

Types of programs

Time-dependent phenomena
Time coverage and co-eval data
Wavelength coverage
Asymmetries at various scales

Unexploited potential of existing facilities

VLT, CHARA, 8-m telescopes, VLA/VLBI

Future facilities

ELT - what instrumentation would be useful?
ALMA - what observing programs?
JWST (added Nov. 30!)

Techniques

Photometry (oscillations)
Polarimetry (magnetic field, scattering)
Spectroscopy (dynamics, composition, abundances)
Imaging (structures, asymmetries)

Methods

Amateur astronomer observations
Coordinated campaigns
Monitoring (spectroscopy, images, B ...)

Scientific questions

Masers
Molecules for dust condensation
MOLsphere
Magnetic field
Rotation ...