

AGB

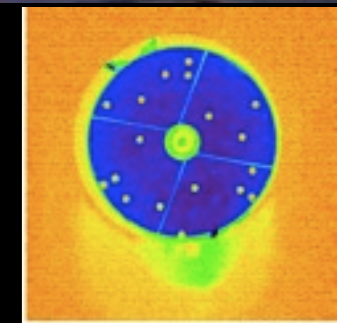
From spherical (?) on the AGB to what??

What happens near the star?
(sizes ~ 1/1000 of nebula)

use interferometry!

spectro-interferometry
(MIDI/VLTI)

aperture masking
(imaging)



post-AGB

Found disc(-like) structures!

- V Hya (AGB) *Lykou et al. 2012, in prep*
- M2-9 (post-AGB) *Lykou et al. 2011*
- Mz3 (young PN) *Chesneau et al. 2007*
- V4334 Sgr (VLTP) *Chesneau et al. 2008*



Support theory: discs needed for asymmetric shaping (Icke 1987)
 Asymmetric structures detected in all evolutionary stages; as early as AGB
 Discs are signatures of binary interactions

go **find** these companions!!!



PN

Current/Future projects:

- Locate binary companions near AGB stars (aperture masking + new VLTI imaging)
- Study grain size/chemistry in outflows with polarimetric interferometry *Norris et al 2012*