Successes and challenges of the APP coronagraph

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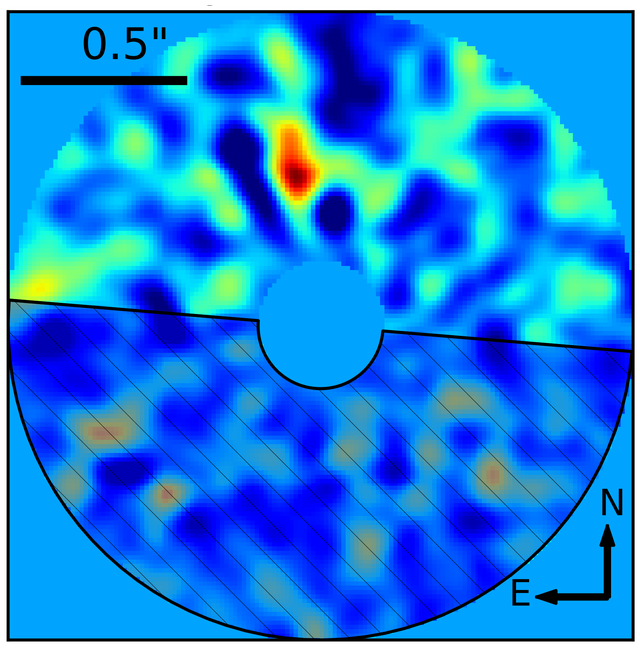
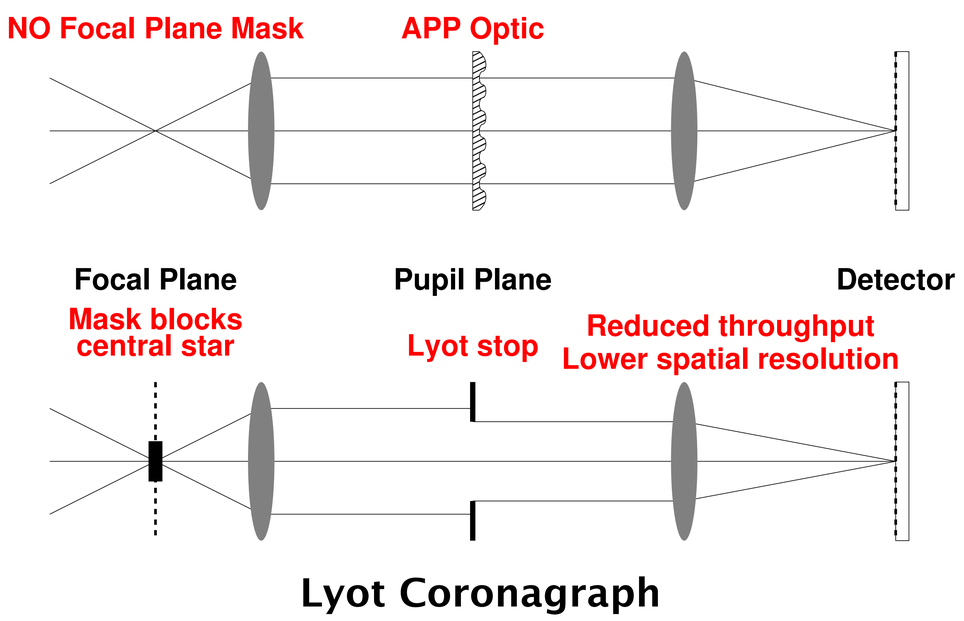
HD 100546 b



Quanz et al. (2013)

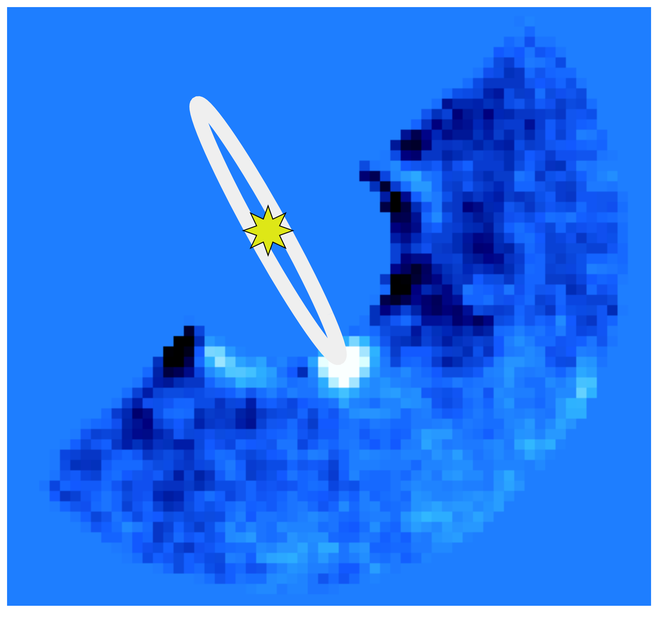
Apodizing Phase Plate (APP) Coronagraph

Kenworthy et al. (2010)



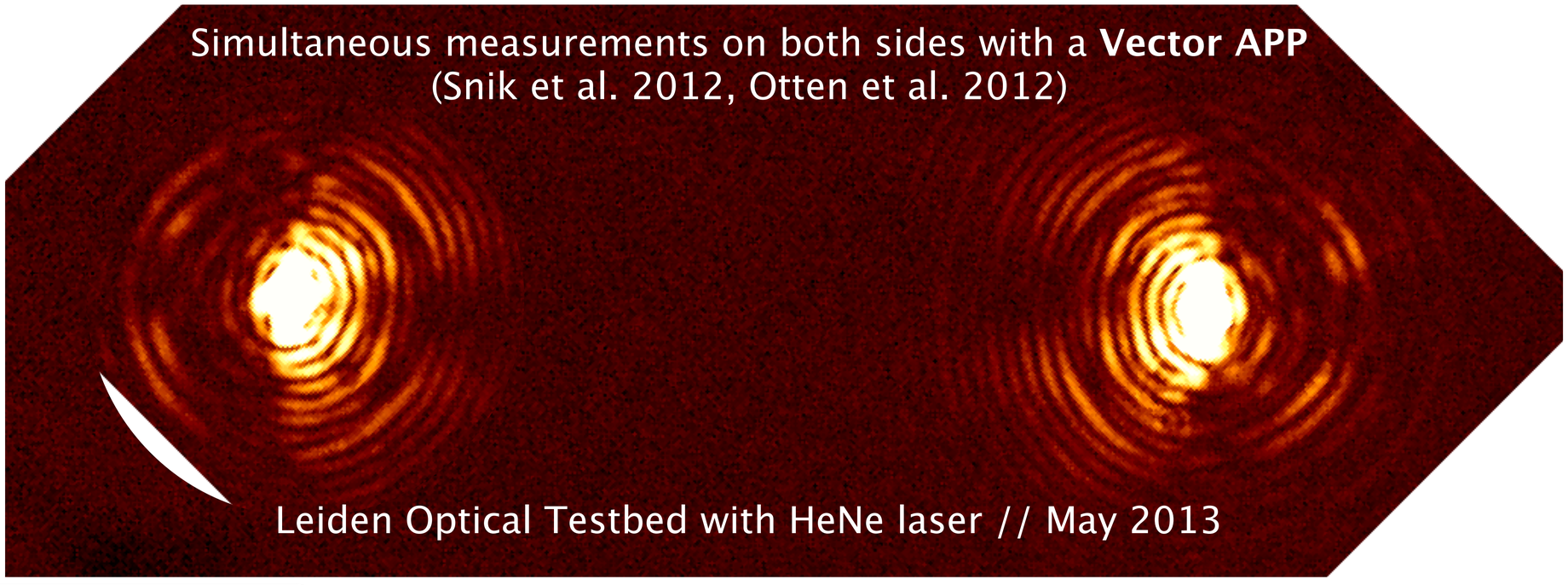
Lyot Coronagraph

β Pic b

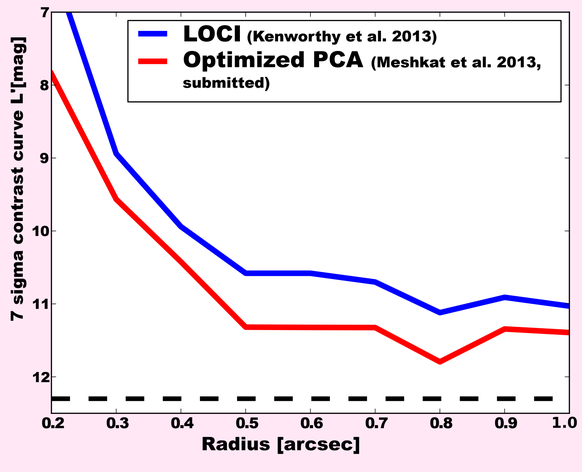


Quanz et al. (2010)

Simultaneous measurements on both sides with a **Vector APP**
(Snik et al. 2012, Otten et al. 2012)



Measured Sensitivity



See Meshkat poster 1.28

APP is vibration insensitive and easy to beamswitch in IR

Vector APP

Achromatic over wide passbands
New APP phase solutions possible

Poster 1.18 at IAUS-299 (2013)

Current Surveys using APP

A/F Stars (Meshkat and Quanz)
18 stars at VLT

Holey Disk Survey (Bailey and Meshkat)
20 stars at VLT/Gemini/LBT

LBTI/LMIRCam Bright Stars