



Future Instrumentation for CHARA





General and Facility

- Fund DMs and complete AO system
- IR Tip/tilt
- Upgrades to remote operations facilities
- Automation (11!)
- More control system integration.
- Data archiving of all data including all beam combiners





CLASSIC/CLIMB

- Dual CLIMB (2x3 beams)
- Combine outputs of both CLIMBs? (6 way)
- Spectral Dispersion (Improve Closure)
- Simultaneous H/K observing (Improve sensitivity)
- Better detector (Ditto)



FLUOR

- Complete JouFLU upgrade
- Implement spectral dispersion
- Get CALI camera fully operational.
- Phase stabilization with CHAMP





VEGA

- Second new generation camera (Summer 2013)
- Image quality improvements – link with WFS
- Impact of new pupil position on spectrograph
- Vis/IR source for cophasing with CLIMB/MIRC
- Development of VEGAS in Nice for next generation instrument.



MIRC/CHAMP upgrade

- Get new SELEX detector for testing.
- Investigate 6-way integrated optic system with Sydney and Grenoble/Meudon including
 - Separation of H/K
 - High Spectral resolution
 - J Band?
- A more advanced spectrograph.



PAVO

- Investigate a 6-way PAVO system
- Adding photometric channels (Choppers?)
- Higher spectral resolution
- Splitting pupil so we can use more than one detector



Long Term – Blue Sky

- Using fibers to incorporate the ISI apertures (OHANA?) Long and Short Baselines.
- Mid-IR science? Need new dichroics, vacuum windows etc.
- Astrometry. Dual star? Closure phase?
- Nulling. Use pairs of long baselines to null star.
- 2 more telescopes. UV Coverage.
- LGS?
- 4m and smaller scopes available soon?



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