

Compact Adaptive Optics for Demonstration and Basic Research April 19, 2004

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AGENDA

1. Current Needy Groups
2. Tools Available to the CfAO
3. Key Concepts
4. Current Status
5. Levels of Interaction
6. Instruction Manual
7. Priorities

*Mark's PowerPoint presentation can be found online at: <http://cfao.ucolick.org/EO/meetings/past.php>

NOTES

1. Current Needy Groups
 - See Mark's presentation Slide 1.
 - There are needs at different levels. Can one system meet all the needs?
2. Tools Available to the CfAO
 - Presentation Slide 1.
 - Vision Systems – Wavefront Sensors (Eric Steinbring)
 - There used to be two systems, but one was “butchered” for parts.
 - They need to be realigned. Rani and Don will look into how long it will take, etc.
 - Tip/tilt corrections system
 - Bad performance?
 - One is currently being used at UH Hilo.
 - Less Accessible Systems
 - Lick, Livermore, UCSC Shops, Rochester
 - Oceanit is building a new AO research lab. It will also be used for educational purposes.
3. Key Concepts
 - Presentation Slide 2.
 - What do we want people to learn?
4. Current Status
 - Presentation Slide 3.
 - Desktop vs. Laptop? Is a laptop even necessary?
5. Levels of Interaction
 - Presentation Slide 5.
 - Simple – for tour groups
 - Look at an image of something and see it go from fuzzy to sharp.

- Could they play with it?
- Demonstrate what different types of aberrations do. They have trial lenses at Rochester.
- Complex - For Students (undergrads and grads)
 - Undergrads – interns
 - They need something more than just a demo. Something that could be done in a whole or ½ day.
 - They could look generally at optical science.
 - Analyze Shack-Hartmann images.
 - See effects of anisoplanatism.
 - What will be done by June 20, in time for Internship Short Course?
 - Grad Students
 - Could be used for projects in AO class.

6. Instruction Manual

- Short guide on web with pictures, diagrams, etc.
- Might be best to write manual after you have experience showing the system to people. Someone who watches people interact with it could help write the manual.

7. Priorities

- A demo (a real scene that is corrected) and posters for a broad audience – tour groups, visitors.
- Simple experiment for interns and something for Summer School. We will have another meeting to continue this discussion.

ACTION ITEMS

- See if the AO Demonstrator could help with the internship short course at the end of June. At a future meeting, figure out what level of interaction complexity is desired.
- If it useful for Julian and the summer school? It looks like a short, interactive display would be most useful (Exploratorium-like).
- Would it be useful for the PD Workshop? People can be encouraged to design inquiry activities for it.

NEXT MEETING

- We will have another meeting in ~2 weeks to discuss how the demonstrator can fit in with the Internship Short Course.