

# 2012 CfAO Fall Science Retreat and Workshops

Sunday November 4, 2012 ~ Laser Workshop			
Time	Activity	Speaker	Room
11:00 - 12:45 PM	Laser Workshop Registration and Check-in		Main Lobby
<i>CfAO Sponsored Workshop:</i> <b>Laser Technology and Systems for Astronomical Adaptive Optics</b>  <a href="http://lao.ucolick.org/LaserWorkshop/2012/">http://lao.ucolick.org/LaserWorkshop/2012/</a>			Lakeview
<p>This is a topical workshop where we will address the following areas of interest to the laser guidestar community:</p> <ul style="list-style-type: none"> <li>• Sodium guidestar return modeling and measurements</li> <li>• Theory of pulsed laser excitation of sodium and preferable laser formats</li> <li>• Sodium return and laser efficiency measurement standards (photometry, receiver filters, number of measurements and averaging, normalizing for latitude and seasonal variation, etc)</li> <li>• On-telescope commissioning experience</li> <li>• Approaches to laser beam transport including beam relay optics, fiber optics, and launch telescopes design</li> <li>• Laser safety, aircraft and satellite predictive avoidance measures, coordination with aviation and space authorities</li> <li>• Reports from laser suppliers</li> </ul>			
1:00 - 3:00	<b>LGS Systems: Status Updates</b> Gemini Observatory / GEMS  Keck Observatory (WMKO) Keck I Solid State System Recently Deployed UC Observatories (UCO) Plans for the ShaneAO System Laser Guidestar Steward Observatory (GMT, LBT) ARGOS the Laser Guide Star System for the LBT Thirty Meter Telescope (TMT)  Caltech Optical Observatories / Pomona College (Robo-AO)	Markus Hartung  Pete Tucker  Donald Gavel  Gustavo Rahmer  Angel Otarola  Chris Baranec Reed Riddle Phil Choi	Lakeview
3:00 - 3:30 PM	<b>Coffee Break</b>		Hallway
3:30 - 6:00	<b>LGS / Sodium Modeling</b> - Analysis of the effects of pulse and spectral content on sodium return predictions. - Plans for experimentation to confirm models  Investigations of Long Pulse Sodium Laser Guide Stars  Capabilities at the UBC/LZT Site for testing LGS laser  Path to a Brighter Na Laser Guide Star	Rachel Rampy Simon Rochester Angel Otarola Paul Hillman Tom Kane	
6:30 - 8:00 PM	<b>Dinner</b>		Dining Room
8:00 - 10:30 PM	<b>Social</b>		Lakeview

# 2012 CfAO Fall Science Retreat and Workshops

Monday November 5, 2012 ~ Laser Workshop			
Time	Activity	Speaker	Room
8:00 - 8:45	<b>Breakfast</b> <i>(Laser Workshop Attendees Only)</i>		Dining Room
9:00 - 9:45	<b>Laser Safety and Predictive Avoidance</b> Predictive Avoidance Importance	Joe Janni	Lakeview
9:45 - 10:15	<b>Laser Systems</b> Presentations by developers of guide star lasers		
10:15 - 10:45	<b>Coffee Break</b>		Hallway
11:45 - 11:30	<b>Laser Systems</b> Presentations by developers of guide star lasers Arete: Report on Progress of OPSL development operating at 589 nm	Greg Fetzer	Lakeview
11:30 - 12:00	<b>General Discussion</b>		
12:00 - 1:00 PM	<b>Lunch</b>		Dining Room

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Posters			
Time	Title	Author	Room
Sunday evening			Lakeview