



**Center for Adaptive Optics**  
An NSF Science & Technology Center



*CfAO Fall 2009 Retreat:*  
**Laser Technology and Systems for Astronomy Workshop**

**Sunday, November 8, 2009**

AM: Laser Guidestars for Astronomy AO

Telescope projects

- TMT
- VLT
- EELT
- Gemini
- Keck
- SOR
- Univ. Arizona
- Palomar

PM: Laser Guidestars Technology

Lasers in development

- Fasortronics
- ESO fiber laser
- LLNL fiber laser
- LMCT / AODP laser
- SOR laser

Laser on sky experiments

- U. Chicago laser
- LAO / Villages experiments
- UBC Lidar work
- Discussion of experiment needs

**Monday, November 9, 2009**

Improving Laser Return Efficiency: Modeling and Experiments

- ESO modeling
- U. Chicago modeling
- Berkeley and Princeton groups
- Discussion of modeling needs

## **Workshop attendees:**

Sean Adkins, Keck Observatory  
Mark Ammons, Univ. Arizona  
Christoph Baranec, Caltech  
Corinne Boyer, TMT  
Justin Bronder, AFRL/SOR  
Dmitry Budker, UC Berkeley  
Julian Christou, Gemini Observatory  
Iyad Dajani, AFRL / SOR  
Jay Dawson, LLNL  
Daren Dillon, UC Santa Cruz / LAO  
Celine d'Orgeville, Gemini Observatory  
Sebastian Engner, NOAJ / Subaru  
Dan Eklund, NOAO  
Dennis Elkins, Evans and Sutherland  
Brent Ellerbroek, TMT  
Robert Fugate, Fasortronics  
Don Garner, Evans and Sutherland  
Don Gavel, UC Santa Cruz / LAO  
Luc Gilles, TMT  
James Graham, UC Berkeley  
Michael Hart, Univ. Arizona  
Masayuki Hattori, NOAJ / Subaru  
Ron Holzlohner, ESO  
Erik Johansson, Keck Observatory  
Edward Kibblewhite, Univ. Chicago  
Natalie Kostinski, Princeton Univ.  
Claire Max, UC Santa Cruz / CfAO  
Andrew Norton, UC Santa Cruz / LAO  
Angel Otarola, TMT  
Thomas Pfrommer, Univ. British Columbia  
Marc Reinig, UC Santa Cruz / LAO  
Simon Rochester, UC Berkeley  
Luke Taylor, ESO  
Lianqi Wang, TMT