

**Agenda for 2006 CEDAR Workshop**  
**June 19 - 23, 2006**  
**Eldorado Hotel**  
**Santa Fe, New Mexico**

**Monday, 19 June 2006**

	<b>CEDAR Student Workshop (Non-students Welcome)</b> <b>Theme - Introduction to Incoherent Scatter Theory, Techniques, and Coordinated Science</b> <b>Student Workshop will be held in Zia</b>	<b>Co-Chairs:</b> <b>Michael Nicolls (Cornell)</b> <b>Carlos Martinis (BU)</b> <b>CEDAR student reps</b>
07:45 and 08:30	Bus departs from Fort Marcy Suites to Eldorado	
08:00 – 08:45	Breakfast, Registration, Sign Travel Vouchers	In concourse
08:45 – 09:00	Student welcome	Jan Sojka (CSSC chair) and Rich Behnke (NSF)
09:00-09:10	Agenda information; organizational details; activity information	Mike Nicolls and Carlos Martinis (CSSC student reps)
09:10-09:40	Incoherent scatter radar related science: Past, present, and future	Bob Robinson (NSF)
09:40-10:40	Keynote: Radar remote sensing of the ionosphere	John Sahr (U WA)
10:40-11:00	--- Break ---	
11:00-12:10	An interactive introduction to incoherent scatter	Josh Semeter (BU) and Phil Erickson (MIT)
12:10-12:40	Lunch provided for everyone	
12:40-13:00	Student Introduction to AMISR	John Kelly (SRI)
13:00-13:30	IS coordinated science at high latitudes	Jeff Thayer (U CO)
13:30-14:00	ISR coordinated science at equatorial latitudes	Jorge Chau (Jicamarca)
14:00-14:20	--- Break ---	
14:20-14:50	IS coordinated science at low latitudes	Nestor Aponte (Arecibo)
14:50-15:20	IS coordinated science at mid latitudes	Anthea Coster (MIT)
15:20-16:00	Student involvement with ISR science, intro to student posters, and IS-related activities at CEDAR	Elizabeth Gerken-Kendall (SRI)
16:00	Adjourn	
16:10	Bus departs Eldorado for Ft. Marcy	
16:00-19:00	Free time for student recreation (soccer, volleyball, etc.) 4:30 – 5:30: Gym reserved for volleyball (one net) 4:30 – 6:30: Lap swimming available at \$1.85 pp. Outdoor baseball field available for soccer and frisbee.	Ft. Marcy Recreation Center -and- Ft. Marcy Park baseball field – first come, first serve
19:15	Bus departs from Fort Marcy Suites to Eldorado	
19:30-21:00	Reception for Students and Non-Students	Anasazi and Zia
21:00	Bus from Eldorado to Fort Marcy Suites (via grocery store)	

**Tuesday, 20 June 2006**

**All sessions will be held in Anasazi unless otherwise noted.**

07:15 and 07:45	Bus departs from Fort Marcy Suites to Eldorado	
08:00-08:10	Opening Addresses	Jan Sojka (CSSC) Rich Behnke (NSF) Art Richmond (NCAR)
08:10-08:20	Report on Student Workshop	Michael Nicolls (Cornell)
08:20-08:30	Introduction of Students by Institution	Carlos Martinis (BU)

08:30-09:15	CEDAR Prize Lecture: Incoherent Scatter Radar perpendicular to B	Erhan Kudeki (U IL)
09:15-09:25	NSF Aeronomy Update	Bob Kerr (NSF)
09:25-10:00	--- Break (Posters go up in Pavilion) ---	
10:00-11:30	Plenary Workshop (continued on Fri): Frontiers in CEDAR Science: A workshop to develop campaigns that advance the frontiers in CEDAR Science	R. Collins, E. Donovan
11:30-13:00	Lunch on own (CSSC lunch at O'Keefe Cafe)	
	--- OR ---	
10:00-13:00	Cooking School (sign up with Santa Fe Destinations)	extra fee
	--- OR ---	
11:35	Bus departs for shopping at Tin-nee-Ann Trading Company	
12:45	Bus departs Tin-nee-Ann Trading Company for Eldorado	
13:00-15:00	<ul style="list-style-type: none"> <li>▪ Equatorial Ionosphere and Scintillation Workshop (<b>Anasazi South</b>)</li> <li>▪ Ground-Based Coordination with the AIM Satellite Mission (<b>Anasazi North</b>)</li> <li>▪ Sensitivity Study in Global Thermosphere/Ionosphere Simulations and Comparison with Observations (<b>Sunset</b>)</li> <li>▪ Continuing on Towards an Integrated Data Environment with the Virtual Observatories (<b>Zia</b>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ O. de La Beaujardiere, D. Anderson, C. Lin, D. Hysell, M. Kelley, J. Chau</li> <li>▪ M. Taylor, J. Russell, S. Bailey</li> <li>▪ Y. Zhang, W. Wang</li> <li>▪ M. Weiss, J. Holt, P. Fox, D. Morrison, S. Nylund</li> </ul>
15:00-16:00	--- Break ---	
16:00-18:00	<ul style="list-style-type: none"> <li>▪ New Research Opportunities with the AMISR and Co-Located Instruments at Poker Flat Alaska (<b>Anasazi South</b>)</li> <li>▪ Ionosphere-Thermosphere Research Using Measurements in Space – What's Needed? What's Possible? What's Realistic? (<b>Sunset</b>)</li> <li>▪ Ionospheric Effects of Lighting (<b>Zia</b>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ J. Kelly, B. Watkins</li> <li>▪ J. Grebowsky, R. Pfaff</li> <li>▪ N. Liu, M. Stanley, M. Taylor</li> </ul>
18:10	Bus departs Eldorado for Ft. Marcy	
19:30-21:30	▪ Midlatitude Nighttime Ionospheric Structures: Theory, Modeling and Physical Explanations ( <b>Zia</b> )	▪ J. Makela, J. Mathews, J. Meriwether
20:45	Bus departs Ft. Marcy for Salsa Party	
21:00-midnight	Salsa Party ( <b>Sunset</b> )	
22:30	Bus departs Eldorado for Ft. Marcy (last bus)	

### Wednesday, 21 June 2006

**All sessions will be held in Anasazi unless otherwise noted.**

07:15 and 07:45	Bus departs from Fort Marcy Suites to Eldorado	
08:00-09:00	Tutorial #1: Comparative Planetary Aeronomy	Michael Mendillo (BU)
09:00-09:20	The CEDAR Database and Virtual Observatory Effort	Peter Fox (NCAR)
09:20-09:35	Post-Doc #1: Comparative Aeronomy at Earth and Mars	Paul Withers (BU)
09:35-10:05	--- Break ---	
10:05-10:20	Post-Doc #2: Estimating Thermospheric Density and Temperature from Combined Optical and Radar Measurements	Lara Waldrop (U IL)
10:20-10:35	Post-Doc #3: Monthly Climatology of Mean Values and Tides in Mesopause Region Temperature and Winds	Tao (Titus) Yuan (CSU)
10:35-10:50	Post-Doc #4: Unlocking the Meteor Toolbox for Aeronomy and Planetary Science	Lars Dyrud (CRS)
10:50-11:10	The Low-latitude Ionospheric Sensor Network (LISN) Distributed Observatory: Deployment Phase	C. Valladares (BC)

11:10-11:20	Post-Doc #5: Investigating Mesospheric Gravity Wave Propagation and Momentum Flux at Low Latitudes	Mitsumu Ejiri (USU)
11:20-11:30	Post-Doc #6: Multi-Instrument AMISR-Jicamarca Observation of Equatorial Electrojet Irregularities	Josef Drexler (Cornell)
11:30-13:00	--- Lunch on own ---	
13:00-15:00 or 16:00	<ul style="list-style-type: none"> <li>▪ Structure and Irregularities in the Mid-Latitude Ionosphere and Thermosphere (<b>Anasazi to 16:00</b>)</li> <li>▪ Data Assimilation in Space Sciences (<b>Sunset</b>)</li> <li>▪ Applications of the Consortium of Resonance and Rayleigh Lidars to CEDAR Science (<b>Zia</b>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ M. Ruohoniemi, R. Pfaff, G. Earle</li> <li>▪ M. Codrescu</li> <li>▪ J. Thayer, X. Chu, D. Fritts, J. She, G. Swenson</li> </ul>
15:00-16:00	--- Networking Break ---	
16:00-19:00	Poster Session #1 (Ionosphere/Thermosphere, Long-Term Variations, Solar-Terrestrial Interactions, Polar Aeronomy, Irregularities)	Pavilion with Break
	--- OR ---	
15:30-19:30	Bus trip to Tsankawi Ancient Cavedwellers tour (sign up with Santa Fe Destinations)	extra fee
19:30	Bus depart Eldorado for Ft. Marcy	
19:30-21:30	▪ Jicamarca Amigos ( <b>Zia</b> )	▪ D. Hysell, J. Chau

### Thursday, 22 June 2006

**All sessions will be held in Anasazi unless otherwise noted.**

07:00 and 07:45	Bus departs from Fort Marcy Suites to Eldorado	
07:15-08:00	Student Breakfast (from hallway) with NSF	alcove in Eldorado Court
08:00-09:00	Tutorial #2: UV Remote Sensing	Larry Paxton (APL/JHU)
09:00-09:05	Announcement of new CSSC members	NSF
09:05-09:30	--- Break ---	
09:30-11:30	<ul style="list-style-type: none"> <li>▪ Opportunities of Research in Aeronomy in Latin America (<b>Anasazi</b>)</li> <li>▪ Thermospheric Density and Composition (<b>Sunset</b>)</li> <li>▪ MLT Structure and Dynamics in Tropical/sub-tropical Regions (<b>Zia</b>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ D. Janches, C. Martinis</li> <li>▪ A. Richmond</li> <li>▪ X. Chu, J. Friedman, G. Swenson</li> </ul>
11:30-01:00	-- Lunch on own (CSSC lunch at O'Keefe Cafe) --	
	--- OR ---	
11:30-13:00	▪ World Day Planning (alcove in Eldorado Court) – buy own lunch	▪ W. Swartz
13:00-16:00	<ul style="list-style-type: none"> <li>▪ Meteors and the Upper Atmosphere (<b>Anasazi South</b>)</li> <li>▪ Incoherent Scatter Radar Long-Duration Experiments and CEDAR (<b>Anasazi North</b>)</li> <li>▪ Plasma Structures and Turbulence (PSAT) (<b>Sunset</b>)</li> <li>▪ Recent Progress in Fabry-Perot Applications to CEDAR Science (<b>Zia</b>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ L. Dyrud, D. Janches</li> <li>▪ S. Zhang, L. Goncharenko</li> <li>▪ E. Mishin, A. Streltsov</li> <li>▪ J. Meriwether, R. Niciejewski</li> </ul>
16:00-19:00	Poster Session #2 (MLT, Coupling, Sprites, Meteors, Planetary Atmospheres)	Pavilion with Break
	--- OR ---	
15:30-19:30	Bus trip to Easy Hike to Tent Rocks (sign up with Santa Fe Destinations)	extra fee
19:30	Bus depart Eldorado for Ft. Marcy	
19:30-21:30	• Radar Meteor Studies: Where Next? ( <b>Zia</b> )	• J. Mathews, S. Close, L. Dyrud

## Friday, 23 June 2006

**All sessions will be held in Anasazi unless otherwise noted.**

07:15 and 07:45	Bus departs from Fort Marcy Suites to Eldorado	
08:00-09:00	Tutorial #3: Ionosphere: Past, Present and Future Problems	Robert Schunk (USU)
09:00-09:10	Announcement of Poster Prize Winners	Rick Doe (CSSC)
09:10-09:30	--- Break --- (Winning posters go in hallway)	
09:30-11:30	<ul style="list-style-type: none"> <li>• Penetration Electric Fields and Ionospheric Storms (<b>Anasazi South</b>)</li> <li>• Climatology / Long-Term Trends (<b>Zia</b>)</li> <li>• TIMED/CEDAR Collaborative Atmospheric Dynamics (<b>Anasazi North</b>)</li> </ul>	<ul style="list-style-type: none"> <li>• C.-S. Huang, S. Sazykin</li> <li>• J. Sojka</li> <li>• E. Talaat, J.-H. Yee, S. Palo, I. Azeem</li> </ul>
11:30-13:00	--- Lunch on own ---	
	--- OR ---	
11:45-12:45	<ul style="list-style-type: none"> <li>• Plenary Workshop (continued from Tue) with pizza lunch: Frontiers in CEDAR Science: A workshop to develop campaigns that advance the frontier in CEDAR science (<b>Anasazi South</b>)</li> </ul>	<ul style="list-style-type: none"> <li>• R. Collins, E. Donovan</li> </ul>
13:00-15:00	<ul style="list-style-type: none"> <li>• Optical Calibration Techniques and Issues (<b>Anasazi South</b>)</li> <li>• Global Electrodynamics and Storm Effects at Mid and Low Latitudes (<b>Anasazi North</b>)</li> </ul>	<ul style="list-style-type: none"> <li>• S. Nossal</li> <li>• T. Fuller-Rowell</li> </ul>
14:00-15:30	Chile Amor! Cooking Class (sign up with Santa Fe Destinations)	02:00-03:30
15:00	--- ADJOURN ---	03:00
	--- OR ---	
15:30-19:30	Bus trip to Pecos National Monument (sign up with Santa Fe Destinations)	
19:30	Bus departs Eldorado for Ft. Marcy	

## Saturday, 24 June 2006

08:30	Bus pick-up at Ft. Marcy for trip to Colorado	
08:45	Bus pick-up at Eldorado for trip to Colorado	
08:30-13:00	Float/Rafting Trip along Rio Grande River (sign up with Santa Fe Destinations)	extra fee
12:30-15:30	Backstage Opera and Shidoni Foundary and Sculpture Garden Tour (sign up with Santa Fe Destinations)	extra fee