



18 - 23 June
Keystone Resort, Colorado

Agenda

Sunday 18 June 2017

Student Workshop (Non-students Welcome) "Modeling and Data Analysis Synergy"

(All sessions to be held in Redcloud and Shavano Peak Room in the Keystone Conference Center unless otherwise noted)

08:00 - 09:00	Student Registration	Keystone Conference Center Lobby
09:00 - 09:15	Student Welcome from CSSC	Seebany Datta-Barua (CSSC member, IIT)
09:15 - 09:30	Agenda information and organizational details	Meghan Burleigh (ERAU), and Lindsay Goodwin (U Saskatchewan, Canada) (CSSC Student Reps)
09:30 - 10:00	Modeling philosophy and an introduction to the different types of models	Jonathan Snively (ERAU)
10:00 - 10:15	<i>Break</i>	
10:15 - 10:45	HWM, MSIS (Empirical models)	Douglas Drob (NRL)
10:45 - 11:15	GITM	Aaron Ridley (UMich)
11:15 - 11:45	Data Assimilation - How to combine a model and observations optimally	Tomoko Matsuo (CU)
11:45 - 13:15	Lunch on own	
13:15 - 13:45	FPI	Mark Conde (UAF)
13:45 - 14:15	SuperDARN	Muhammad Rafiq (VT) and Shibaji Chakraborty (VT)
14:15 - 14:45	Sounding Rockets	Kristina Lynch (Dartmouth)
14:45 - 15:00	<i>Break</i>	
15:00 - 15:30	CubeSats	Jeff Klenzing (GSFC)
15:30 - 16:00	Effective presentations: communicating efficiently with your scientific peers	Bea Gallardo-Lacourt (U Calgary) and Bill Archer (U Saskatchewan)
16:00	<i>Adjourn</i>	
16:30 - 17:30	Student Soccer Game and/or Volleyball	Grass area behind Keystone Spa and Fitness Center
18:00 - 19:30	CEDAR Reception	Belvedere Patio (Roof of Keystone Conference Center)

Monday 19 June 2017 (Plenary at Redcloud & Shavano Peak)

07:00 - 08:15	Registration/Check-in	Keystone Conference Center Lobby
08:15 - 09:10	Welcome	Jonathan Makela (CSSC, Univ. of Illinois), Student Report, Student Institutions introduced, NSF
09:10 - 9:30	Science Highlight #1: "Using a Constellation of Cubesats to Conduct Thermospheric Science: The QB50 mission"	Scott Palo (CU Boulder)
9:30 - 10:00	<i>Break</i>	
10:00 - 10:45	Tutorial #1: The Geosciences Paper of the Future: Practical Guidelines for Adopting Digital Scholarship, Reproducible Research, and Open Science	Yolanda Gil (U. Southern California)
10:45 - 11:00	Recognition of Barbara Emery	K. Greb, J. Thayer, J. Forbes, J. Semeter, J. Sahr
11:00 - 11:20	Science Highlight #2: "Lagrangian coherent structures in the thermosphere"	S. Datta-Barua (IIT)
11:20 - 11:23	Introduction of CEDAR Prize Recipient	Jeff Forbes (CU Boulder)
11:23 - 12:05	CEDAR Prize lecture: "Nitric Oxide: How the thermosphere 'fights back' during intense storms"	D. Knipp (CU Boulder)
12:00 - 13:30	Lunch on own	
13:30 - 15:30	Breakout 1: A: Gravity waves in MTI <i>Redcloud & Shavano</i> Breakout 2: A: Radar and optical observations <i>Crestone II</i> Breakout 3: A: Digital Geospace <i>Torreys I & II</i>	S. Vadas S. Raizada A. Bhatt

	Breakout 4: High Latitude Electrodynamics <i>Torreys III & IV</i>	G. Lu
15:30 - 16:00	<i>Break</i> Poster Boards Available for MLT Poster Session Placement ONLY	Castle Peak (Keystone Conference Center 2nd floor)
16:00 - 18:00	Breakout 5: Low latitude CEDAR science <i>Redcloud & Shavano</i> Breakout 6: CEDAR-GEM Modeling Challenge <i>Torreys I & II</i> Breakout 7: Polar Workshop <i>Torreys III & IV</i>	F. Rodrigues J. S. Shim X. Chu
18:30 - 21:00	<i>Students Dine with a Scientist</i> <i>CSSC dinner</i>	<i>Keystone Lodge Ballroom</i> <i>Lakeside Suite in the Keystone Lodge</i>
Tuesday 20 June 2017 (Plenary at Redcloud & Shavano Peak)		
08:15 - 09:00	Agency Updates NSF & NASA	R. Lieberman, J. Meriwether, I. Azeem (NSF), J. Morrill (NASA)
09:00 - 9:30	NRL-MSIS 2.0: New formulation, new data	John Emmert, Doug Drob (NRL)
9:30 - 10:00	<i>Break</i>	
10:00 - 12:00	Breakout 1: GC-A: Storms and Substorms Without Borders (SSWB) <i>Redcloud & Shavano</i> Breakout 2: Ionospheric Electrodynamics <i>Crestone III & IV</i> Breakout 3: Optical calibration and analysis <i>Torreys I & II</i> Breakout 4: Next generation systems science <i>Toerys III & IV</i>	P. Erickson A. Maute S. Nossal R. McGranaghan
12:00 - 13:30	<i>Lunch on own (student boxed lunches with panel)</i>	<i>Redcloud and Shavano Peak</i>
13:30 - 15:30	Breakout 5: GC: High Latitude System Frontiers <i>Crestone III & IV</i> Breakout 6: Education and Outreach <i>Torreys I & II</i> Breakout 7: Thermosphere and ionosphere <i>Torreys III & IV</i>	J. Semeter L. V. Goodwin Y. Zhang
15:30 - 16:00	<i>Break</i>	
16:00 - 19:00	MLT Poster Session (MLT, Coupling, Instrumentation and Techniques)	Castle Peak (Keystone Conference Center 2nd floor)
Wednesday 21 June 2017 (Plenary at Redcloud & Shavano Peak)		
07:00 - 8:15	<i>MLT Poster Removal and IT Studies Poster Placement</i>	Castle Peak (Keystone Conference Center 2nd floor)
08:15 - 08:35	Science Highlight #3: "Waves and Turbulence Dynamics above the Andes"	Alan Liu (Embry-Riddle)
08:35 : 08:50	Post Doc Report #1: "Secondary Gravity Waves and Gravity Wave Coupling from the Lower Atmosphere to the MLT"	Katrina Bossert (GATS)
08:50 - 09:10	Science Highlight #4: Solar Eclipse 2017	Phil Erickson (MIT Haystack)
09:10 - 09:30	Science Highlight #5: "Thermosphere data from acceleration measurements by Swarm and other satellites"	Eelco Doornbos (TU Delft)
09:30 - 10:00	<i>Break</i>	
10:00 - 12:00	Breakout 1: GC-B: Storms and Substorms Without Borders (SSWB) <i>Redcloud & Shavano</i> Breakout 2: A: Python for Space Science <i>Crestone III & IV</i> Breakout 3: RF and chemical ionospheric modification <i>Torreys I & II</i> Breakout 4: B: Low latitude CEDAR science <i>Torreys III & IV</i>	P. Erickson R. Stoneback E. Nossa F. Rodrigues
12:00 - 13:30	<i>Lunch on own</i>	
13:30 - 15:30	Breakout 5: GC-B: High latitude IT coupling <i>Redcloud & Shavano</i> Breakout 6: B: Python for Space Science <i>Crestone III & IV</i> Breakout 7: Collaborative investigations of MLT <i>Torreys I & II</i> Breakout 8: Physics and Sensor Models <i>Torreys III & IV</i>	Y. Huang R. Stoneback A. Z. Liu J. Swoboda
15:30 - 16:00	<i>Break</i>	
16:00 - 19:00	IT Studies Poster Session	Castle Peak (Keystone Conference Center 2nd floor)
19:00 - 20:00	<i>Torreys I & II: ISR World Day Planning</i>	R. Varney (SRI)
Thursday 22 June 2017 (Plenary at Redcloud & Shavano Peak)		
8:15 - 8:18	Introduction of CEDAR Distinguished lecturer	Maura Hagan (USU)
08:18 - 09:10	CEDAR Distinguished lecture: "Perspectives on Ionospheric Electrodynamics"	Art Richmond (HAO/NCAR)
09:10 - 09:25	CEDAR poster prize announcement	Head Judges: Lynn Harvey, Ethan Miller

09:25 - 09:30	Jicamarca status after "El Niño"	Marco Milla (JRO)
	<i>Break</i>	
09:30 - 10:00	<i>IT Studies Poster Removal</i>	<i>Castle Peak (Keystone Conference Center 2nd floor)</i>
10:00 - 12:00	Breakout 1: Whole Atmosphere Variability <i>Redcloud & Shavano</i> Breakout 2: B: Polar Workshop <i>Crestone III & IV</i> Breakout 3: Distributed Networks <i>Torreys I & II</i> Breakout 4: Thunderstorm Coupling and Effects <i>Torreys III & IV</i>	J. Liu X. Chu C. E. Valladares J. Snively
12:00 - 13:30	<i>Lunch on own - CSSC lunch at Crestone I</i>	
13:30 - 15:30	Breakout 5: Ionosphere and thermosphere storm <i>Crestone III&IV:</i> Breakout 6: Meteoroids and Space Debris <i>Torreys I & II</i> Breakout 7: B: Gravity waves in MTI <i>Torreys III & IV</i>	J. Liu J. Urbina S. Vadas
15:30 - 16:00	<i>Break</i>	
16:00 - 18:00	Breakout 9: Geospace Science and Public Policy <i>Crestone III & IV</i> Breakout 10: Assimilating auroral observations <i>Torreys I & II</i> Breakout 11: WACCM X Users Group <i>Torreys III & IV</i>	M. Hirsch K. Lynch H. Liu
18:30 - 21:00	<i>Banquet Dinner</i>	<i>Keystone Lodge Ballroom</i>
Friday 23 June 2017 (Plenary at Redcloud & Shavano Peak)		
08:15 - 08:35	Science Highlight #6: "Medium Range Thermosphere Ionosphere Storm Forecasts"	Tony Mannucci (JPL)
08:35 - 08:50	PostDoc Report #2: "A novel data assimilation model for the plasmasphere"	Romina Nikoukar
08:50 - 09:30	Tutorial #2: "Plasma-Neutral Interactions in the MLT-X (80-200 km altitude range)"	Jeff Thayer (CU Boulder)
09:30 - 10:00	<i>Break</i>	
10:00 - 12:00	Breakout 1: GC: MLTX Frontiers <i>Redcloud & Shavano</i> Breakout 2: Hydrogen <i>Crestone III&IV</i> Breakout 3: 2017 Solar Eclipse <i>Torreys I&II</i>	J. Thayer E. Mierkiewicz S. Zhang
12:00	<i>Adjourn</i>	