



**EDUCATION OUTREACH PROGRAM****R1: HIGHLIGHTS FROM THE CIRES EDUCATION AND OUTREACH GROUP**

Susan Buhr, Tina Arthur, Jessica Feld, Anne Gold, Susan Lynds, Mark McCaffrey, Emily Morton, Lesley Smith

**R2: PROJECT EXTREMES- EXPLORATION, TEACHING AND RESEARCH FOR EXCELLENCE IN MIDDLE AND ELEMENTARY SCIENCE**

Lesley Smith, Bill Bowman, Shivakant Mishra, Jessica Feld

**R3: THE CLIMATE LITERACY AND ENERGY AWARENESS (CLEAN) COLLECTION OF PEER-REVIEWED HIGH-QUALITY DIGITAL TEACHING MATERIALS**

Anne U. Gold (1), Mark S. McCaffrey (2), Susan M. Buhr (3), Susan Lynds (4)

**CIRES AT LARGE CONTRIBUTIONS****R4 THE CIRES COMMUNICATION GROUP****R5 CIRES FINANCIAL SERVICES****SOLID EARTH SCIENCES DIVISION****R6: THE VOLCANIC-PLUTONIC CONNECTION AT THE NEVER SUMMER IGNEOUS COMPLEX, NORTH-CENTRAL COLORADO**

Kristin Jacob (1), Lang Farmer (2)

**R7: PREDICTING EVENT-SCALE FLOODPLAIN CHANGE WITH A COUPLED HYDRODYNAMIC (ANUGA) AND SEDIMENT TRANSPORT MODEL: A CASE STUDY OF THE RIO PUERCO ARROYO, NM**

Mariela C. Perignon (1), Gregory E. Tucker (1), Eleanor R. Griffin (2), Jonathan M. Friedman (2), Kirk R. Vincent (2)

**R8: IMPLEMENTING DENSE ARRAYS OF SINGLE-CHANNEL SEISMIC RECORDERS TO DETECT GLOBAL TELESEISM EVENTS**

Colin T. O'Rourke<sup>1</sup>, Anne F. Sheehan<sup>1</sup>, Zhaohui Yang<sup>1</sup>, Joshua Stachnik<sup>1</sup>, and BASE Seismic Team<sup>1</sup>

**R9: MANTLE SEISMIC ANISOTROPY AT A PLATE BOUNDARY: SOUTH ISLAND, NEW ZEALAND**

Dan Zietlow<sup>1</sup>, Anne Sheehan<sup>1</sup>, Zhaohui Yang<sup>1</sup>, Josh Stachnik<sup>1</sup>, Peter Molnar<sup>1</sup>, John Collins<sup>2</sup>

**R10: USING A NATURAL EXPERIMENT TO UNDERSTAND GULLY EROSION RATES AND MECHANISMS**

RENGERS, Francis K. (1), TUCKER, Gregory E. (1), PHILLIPS, David A. (2), BRASWELL, John J. (3)

**R11: GLACIAL ISOSTATIC ADJUSTMENT AS A SOURCE OF NOISE FOR THE INTERPRETATION OF GRACE DATA**

Geruo A(1)(2), John Wahr(1)(2), Shijie Zhong(2)

**R12: NOISE ANALYSIS OF OCEAN-BOTTOM SEISMIC EXPERIMENT OFFSHORE OF NEW ZEALAND**  
Zhaohui Yang (1), Anne Sheehan (2), John Collins (3), Peter Molnar (4)

**ECOSYSTEM SCIENCE DIVISION**

**R13: DISTURBANCE INTERACTIONS AND THEIR IMPACT ON FOREST RESILIENCE MECHANISMS**  
Brian Buma, Carol Wessman

**R14: EFFECTS OF LODGEPOLE PINE MORTALITY DUE TO MOUNTAIN PINE BEETLE INFESTATION ON STREAM CHEMISTRY**

Leigh A. Cooper, James H. McCutchan, Jr., Thomas M. Detmer, William M. Lewis, Jr.

**R15: SPECIES DISTRIBUTION MODELING UNDER CLIMATE CHANGE: CASE STUDIES FROM INDIA**  
John Kineman

**R16: ECOLOGICAL RESPONSES TO NUTRIENTS IN STREAMS AND RIVERS OF THE COLORADO MOUNTAINS AND FOOTHILLS**

William M. Lewis, Jr. (1) and James H. McCutchan, Jr. (1)

**CENTER FOR SCIENCE AND TECHNOLOGY POLICY**

**R17: WHEN IS GEOENGINEERING RESEARCH “JUST RESEARCH”? THE ROLE OF RESEARCH FRAMING IN LIGHT OF THE USE OF TECHNOLOGY**

Lisa Dilling

**R18: EQUATORIAL-PRIMO (PROBLEMS RELATED TO IONOSPHERIC MODELS AND OBSERVATIONS)**

Tzu-Wei Fang(1), David Anderson(1), Tim Fuller-Rowell(1), Rashid Akmaev(2), Mihail Codrescu(2), George Millward(1), Jan Sojka(3), Ludger Scherliess(3), Vince Eccles(4), John Retterer(5), Joe Huba(6), G. Joyce(7), Art Richmond(8), Astrid Maute(8), Geoff Crowley(9), Aaron Ridley(10), Geeta Vichare(10)

**R19: DRYNESS AND DESPERATE MEASURES: A POLITICAL ECOLOGY OF DROUGHT AND RANCHING IN THE ROCKY MOUNTAIN WEST**

Kristin Gangwer (1), William R. Travis (2)

**R20: THE CENTER FOR SCIENCE AND TECHNOLOGY POLICY RESEARCH**

William Travis (1), Bobbie Klein (2), Ami Nacu-Schmidt (3)

**CRYOSPHERIC AND POLAR PROCESSES DIVISION****B1: RECENT CHANGES IN TROPOSPHERIC WATER VAPOUR OF THE ARCTIC**

Andrew P. Barrett, Mark C. Serreze, Julienne Stroeve

**B2: CLOUD TRENDS AROUND GREENLAND 1983-2008.**

G. Garrett Campbell

**B3: A COMPARISON OF GROUND-BASED LIDAR, CONTACT SPECTROSCOPY, FMCW RADAR, AND MANUAL SNOW PIT PROFILES OF A MOUNTAIN SNOWPACK**

Jeffrey Deems (1), Dave Finnegan (2), Elias Deeb (3), H.P. Marshall (4), Annie Bryant (5), McKenzie Skiles (6), Chris Landry (7), Tom Painter (8)

**B4: THE DATA CONSERVANCY: AN NSF DATANET PROGRAM PARTNERSHIP**

Ruth Duerr (1), Siri Jodha Singh Khalsa (1), Sayeed Choudhury (2)

**B5: OPERATIONAL PRODUCTS ARCHIVED AT THE NATIONAL SNOW AND ICE DATA CENTER**

Florence Fetterer (1), Ann Windnagel (2), Jonathan Kovarik (3), Kara Gergely (4)

**B6: RECOVERING 1960\_S SEA ICE EXTENT FROM NIMBUS II INFRARED AND VISIBLE IMAGERY DATA**

David Gallaher, Walt Meier, John Moses

**B7: USING SURFACE ROUGHNESS DERIVED FROM ICESAT, ICEBRIDGE AND CASIE DATA TO MAP GEOPHYSICAL AND ICE-DYNAMIC PROVINCES IN GLACIERS AND SEA ICE**

Ute Herzfeld (1,2), Bruce Wallin (1,3), Brian McDonald (1,2), Phil Chen (1,2), William Krabill (4), Serdar Manizade (4), James Maslanik (5), R. Ian Crocker (5), Matthew Fladeland (6)

**B8: MANAGING ICEBRIDGE AIRBORNE MISSION DATA AT THE NATIONAL SNOW AND ICE DATA CENTER**

Marilyn Kaminski (1), Mary J. Brodzik (1), Ted Scambos (1), Jeff Deems (1)

**B9: ARCTIC OCEAN TIDES FROM GRACE SATELLITE ACCELERATIONS**

Bryan Killett (1), John Wahr (1), Shailen Desai (2), Dah-Ning Yuan (2), Mike Watkins (2)

**B10: ANTARCTIC DATA AT THE NATIONAL SNOW AND ICE DATA CENTER**

Rob Bauer, Jennifer Bohlander, Betsy Sheffield, Katherine Leitzell, Ted Scambos

**B11: STUDYING SURFACE DYNAMICS OF PERMAFROST AND ACTIVE LAYER THICKNESS FROM SPACE USING INSAR**

Lin Liu (1), Tingjun Zhang (2), Kevin Schaefer (2), and John Wahr (1)

**B12: ELOKA - ARCHIVING LOCAL AND TRADITIONAL KNOWLEDGE OF THE ARCTIC \_ MANAGING DATA AND INFORMATION IN PARTNERSHIP WITH INDIGENOUS COMMUNITIES AND EARTH SCIENTISTS**

Chris McNeave (1), Mark A. Parsons (1), Shari Gearheard (1), Henry Huntington (2), Peter Pulsifer (1), Heidi McCann (1)

**B13: STRENGTH AND TIMING OF THE PERMAFROST CARBON FEEDBACK**

Tingjun Zhang (1), Kevin Schaefer (1), Lori Bruhwiler (2), Andrew P. Barrett (1)

**B14: PARAMETER TRANSFER IN A CONCEPTUAL SNOW MODEL**

A.G. Slater (1), M.P. Clark (2), B. Rajagopalan (3), A.P. Barrett (1), J.L. McCreight (4)

**B15: STABLE WATER ISOTOPES ON TIME SCALES FROM HOURS TO DECADES AT THE NEW DEEP DRILLING SITE IN NW GREENLAND – NEEM**

H. C. Steen-Larsen(1,5), V. Masson-Delmotte(2), J. Sjolte(1), S. J. Johnsen(1), B. M. Vinther(1), F-M Br\_on(2), H. B. Clausen(1), D. Dahl-Jensen(1), S. Falourd(2), X. Fettweis(3), H. Gall\_e(4), J. Jouzel(2), M. Kageyama(2), H. Lerche(1), B. Minster(2), G. Picard(4), H. J. Punge(2), C. Risi(5,6), D. Salas(7), J. Schwander(8), K. Steffen(5), A. E. Sveinbjornsdottir(9), A. Svensson(1), J. White(10)

**B16: SEA ICE RESPONSE TO AN EXTREME NEGATIVE PHASE OF THE ARCTIC OSCILLATION DURING WINTER 2009/2010**

Julienne Stroeve, James Maslanik, Mark Serreze, Ignatius Rigor, Walter Meier

**B17: ROCS @ NSIDC: A GROWING COLLECTION**

Allaina M. Wallace , Gloria J. Hicks

**ENVIRONMENTAL OBSERVATIONS, MODELING AND FORECASTING DIVISION****B18: QUANTIFYING DIGITAL ELEVATION MODEL (DEM) UNCERTAINTY INTRODUCED BY VARIOUS INTERPOLATION METHODS**

Christopher J. Amante (1,2), Matthew R. Love (1,2), Barry W. Eakins (1,2)

**B19: CU AIRBORNE MAX-DOAS MEASUREMENTS OVER CALIFORNIA DURING THE CALNEX AND CARES FIELD CAMPAIGNS**

Sunil Baidar(1, 2), Hilke Oetjen(1), Sean Coburn(1), Ivan Ortega(1), Barbara Dix(1), Roman Sinreich(1) and Rainer Volkamer(1, 2)

**B20: TRENDS OF LONG-LIVED HALOCARBONS, NITROUS OXIDE AND SULFUR HEXAFLUORIDE**

Geoff Dutton (1), Brad Hall (2), David Nance (1), Debbie Mondeel (1), James Elkins (2)

**B21: MIXING, EDDIES, AND ALL THAT: OCEAN PARAMETERIZATION DEVELOPMENTS FROM 4M TO 400KM**

Baylor Fox-Kemper

**B22: CLASSIFICATION OF SEA ICE VIDEO IMAGERY DURING AMISA 2008**

Pierce Martin (1), Albin J. Gasiewski (1), Ola P.G. Persson (2)

**B23: FIRST RESULTS FROM UCATS DURING THE GLOPAC 2010 MISSION**

Eric J. Hints(1,2), Fred L. Moore(1,2), Geoff S. Dutton(1,2), Brad D. Hall(2), James W. Elkins(2), Ru-Shan Gao(3), Eric A. Ray(1,3), Karen H. Rosenlof(3), and Robert L. Herman(4)

**B24: THE EFFECT OF MEASURED OZONE PROFILES AND TROPOSPHERIC OZONE ON UV PHOTOLYSIS RATE COEFFICIENTS IN THE TROPOSPHERE IN HOUSTON, TX**

K. Lantz (1,2), C. Long (3), I. Petropavlovskikh (1,2), S. Stierle (1,2), and P. Disterhoft (1,2)

**B25: COMPANION STRUCTURED AND UNSTRUCTURED DIGITAL ELEVATION MODEL (DEM) DEVELOPMENT**

Matthew R. Love(1)(2) Barry W. Eakins(1)(2) Jason Caldwell(3)

**B26: THE SCALE PROBLEM IN QUANTIFYING AEROSOL INDIRECT EFFECTS**

Allison McComiskey(1), Graham Feingold (2)

**B27: DEEP-OCEAN ASSESSMENT AND REPORTING OF TSUNAMI (DART) DATA AVAILABLE FROM THE 27 FEBRUARY 2010 CHILEAN EARTHQUAKE**

George Mungov(1), Kelly Stroker(2)

**B28: THE MAGNETIC FIELDS GENERATED BY THE TSUNAMI OF FEBRUARY 27, 2010**

Manoj Nair(1), Stefan Maus(1), Arnaud Chulliat(2), S\_bastien Allgeyer(3) and Alexei Kuvshinov (4)

**B29: OZONE PROFILE TRENDS FROM GROUND-BASED AND SATELLITE DATA**

Petropavlovskikh (1), J. A. Logan (2), V. Fioletov (3), S. Frith (4), R. Stolarski (4), S. Godin-Beekmann (5), Prijitha J. Nair (5), J. Harris (6), S. Oltmans (6), L. Flynn (7), S.-K. Yang (8)

**B30: DOPPLER-LIDAR-BASED WIND-PROFILE MEASUREMENT SYSTEM FOR OFFSHORE WIND-ENERGY AND OTHER MARINE-BOUNDARY-LAYER APPLICATIONS**

YELENA L. PICHUGINA, ROBERT M. BANTA, W. ALAN BREWER, SCOTT P. SANDBERG, AND R. MICHAEL HARDESTY

**B31: QUANTITATIVE STATISTICAL ESTIMATES OF ENSO RESPONSE TO CLIMATE CHANGE IN THE CCSM3.5**

Samantha Stevenson (1), Baylor Fox-Kemper (1), Markus Jochum (2)

**B32: ISOTOPIC STUDIES OF FOG, RAIN, AND ECOSYSTEM WATERS ON SANTA CRUZ ISLAND, CALIFORNIA**

Christopher Still, Douglas Fischer, Park Williams, Colin Ebert, and Sara Baguskas

**B33: MODERN DATA CENTER SERVICES SUPPORTING SCIENCE**

Jesse Varner (1), John Cartwright (2), Susan McLean (2), Jordan Boucher (1), David Neufeld (1), John Larocque (2), David Fischman (2), Evan McQuinn (1), Clint Fugett (3)

**B34: GRAVITY WAVE SOURCE AND PROPAGATION DURING THE 2009 STRATOSPHERIC SUDDEN WARMING**

Chihoko Yamashita (1,2), Hanli Liu (2), Xinzhao Chu (1)

**B35: PASSIVE RADIO IMAGING FOR APPLICATIONS IN WATER RESOURCE MANAGEMENT, GLACIOLOGY, AND SPACE WEATHER MONITORING**

Nikolay Zobotin (1,2), Oleg Godin (1,3), Terence Bullett (1,4)

**ENVIRONMENTAL CHEMISTRY DIVISION****Y1: MEASUREMENTS OF WEAK ABSORPTIONS BY O<sub>3</sub> AND O<sub>3</sub>-H<sub>2</sub>O CLUSTERS USING CAVITY ENHANCED SPECTROSCOPY**

Jessica L. Axson<sup>1</sup>, V. Vaida<sup>1</sup>, C. Young<sup>1,2</sup>, R. Washenfelder<sup>1,2</sup>, S.S. Brown<sup>2</sup>

**Y2: ATMOSPHERIC CHEMISTRY OF (E)- AND (Z)-CF<sub>3</sub>CH=CHCF<sub>3</sub>: OH REACTION RATE COEFFICIENTS AND GLOBAL WARMING POTENTIALS**

Munkhbayar Baasandorj<sup>(1,2)</sup>, A.R. Ravishankara<sup>(2)</sup> and James B. Burkholder<sup>(2)</sup>

**Y3: SOURCES AND CHARACTERISTICS OF SUB-MICRON AEROSOLS IN THE SAN JOAQUIN VALLEY, CA**

R. Bahreini<sup>(1,2)</sup>, A.M. Middlebrook<sup>(2)</sup>, J. Brioude<sup>(1,2)</sup>, C.A. Brock<sup>(2)</sup>, J. de Gouw<sup>(1,2)</sup>, J.S. Holloway<sup>(1,2)</sup>, A.J. Neuman<sup>(1,2)</sup>, J.B. Nowak<sup>(1,2)</sup>, I. Pollack<sup>(1,2)</sup>, T.B. Ryerson<sup>(2)</sup>, C. Warneke<sup>(1,2)</sup>, D.D. Parrish<sup>(2)</sup>, J. Langridge<sup>(1,2)</sup>, and D.M. Murphy<sup>(2)</sup>

**Y4: TOP-DOWN ESTIMATE OF ANTHROPOGENIC EMISSION INVENTORIES IN HOUSTON USING A 4D-VAR MESOSCALE INVERSE MODELING TECHNIQUE**

J Brioude<sup>(1,2)</sup>, S-W Kim<sup>(1,2)</sup>, GJ Frost<sup>(1,2)</sup>, W Angevine<sup>(1,2)</sup>, R Ahmadov<sup>(1,2)</sup>, S-H Lee<sup>(1,2)</sup>, S McKeen<sup>(1,2)</sup>, M Trainer<sup>(2)</sup>, J Holloway<sup>(1,2)</sup>, T Ryerson<sup>(2)</sup>, J Peischl<sup>(1,2)</sup>, D Parrish<sup>(2)</sup>, F Fehsenfeld<sup>(1,2)</sup>, K Gurney<sup>(3)</sup>

**Y5: EVALUATING EMISSIONS AND CHEMISTRY OF ORGANIC CARBON AT URBAN AND REGIONAL SCALES**

Agnes Borbon

**Y6: DEVELOPMENT OF STABLE, IMMUNOGENIC, AND PROTECTIVE MEASLES VACCINES FOR NEEDLE-FREE ADMINISTRATION**

Stephen P. Cape<sup>1</sup>, David H. McAdams<sup>1</sup>, J\_aime R. Manion<sup>1</sup>, Nisha Shah<sup>1</sup>, David Chen<sup>1</sup>, Hana Richter<sup>1</sup>, Ravindra G. Muley<sup>2</sup>, Vivek B. Vaidya<sup>2</sup>, Rajeev M. Dhere<sup>2</sup>, Pradnya A. Bhagwat<sup>3</sup>, Pankaj Pathak<sup>3</sup>, Jim A. Searles<sup>3</sup>, David M. Krank<sup>3</sup>, Sarah Evans<sup>3</sup>, Scott E. Winston<sup>3</sup>, Brian P. Quinn<sup>3</sup>, Diane E. Griffin<sup>4</sup>, W-H Lin<sup>4</sup>, Paul A. Rota<sup>5</sup>, C. Steven Godin<sup>6</sup>, and Robert E. Sievers<sup>1</sup>

**Y7: IAGOS IN THE USA: AN OPPORTUNITY FOR COMMERCIAL AIRLINES TO MONITOR AIR QUALITY AND GREENHOUSE GASES ABOVE THE UNITED STATES**

Owen R. Cooper<sup>(1,2)</sup>, Colm Sweeney<sup>(1,2)</sup>, Andreas Volz-Thomas<sup>(3)</sup>, Jean-Pierre Cammas<sup>(4)</sup>

**Y8: PROFILING INSTRUMENT SHELTER WITH AMENITIES (PISA). AN INSTRUMENT PLATFORM FOR VERTICAL PROFILE BOUNDARY LAYER MEASUREMENTS**

William P. Dube<sup>(1)</sup>, Nick Wagner<sup>(1)</sup>, Gerhard H\_bler<sup>(1)</sup>, Bruce Bartrum<sup>(2)</sup>, Daniel Wolfe<sup>(2)</sup>, Steven S. Brown<sup>(3)</sup>

**Y9: ON THE ROLE OF ICE FORMATION MECHANISMS AND HABIT GROWTH IN THE MAINTENANCE OF MIXED PHASE ARCTIC STRATUS**

Barbara Ervens<sup>(1,2)</sup>, Graham Feingold<sup>(2)</sup>, Kara Sulia<sup>(3)</sup>, Jerry Y. Harrington<sup>(3)</sup>

- Y10: THE COMMUNITY INITIATIVE FOR EMISSIONS RESEARCH AND APPLICATIONS**  
Gregory Frost (1,2), Claire Granier (1,2,3), Stefan Falke (4,5), Terry Keating (6), Jean-Fran\_ois Lamarque (7), Megan Melamed (8), Paulette Middleton (9), Gabrielle P\_tron (1,2), Steven Smith (10)
- Y11: PHOTOCHEMISTRY OF NITRYL CHLORIDE (CLNO<sub>2</sub>): TEMPERATURE DEPENDENT UV-VIS ABSORPTION SPECTRA AND PHOTOLYSIS QUANTUM YIELDS OF O(3P) AT 193NM AND 248NM**  
Buddhadeb Ghosh (1)(2), Dimitrios K. Papanastasiou (1)(2), Ranajit K. Talukdar (1)(2), James Roberts (2) and James B. Burkholder(2)
- Y12: VOC EMISSIONS FROM BIOFUEL CROPS**  
Martin Graus (1,2), Allyson Eller (1,3), Ray Fall (1,4), Joost de Gouw (1,2), Carsten Warneke (1,2)
- Y13: MORPHOLOGY AND CHEMISTRY OF ORGANICS AT THE WATER-AIR INTERFACE**  
Elizabeth Griffith, Veronica Vaida
- Y14: AEROSOL COMPOSITION IN LOS ANGELES DURING THE 2010 CALNEX CAMPAIGN STUDIED BY HIGH RESOLUTION AEROSOL MASS SPECTROMETRY**  
Patrick L. Hayes (1,2), Amber M. Ortega (1,3), Michael J. Cubison (1,2), Weiwei Hu (1,4), Darin W. Toohey (3), James H. Flynn (5), Nicole Grossberg (5), Barry L. Lefer (5), Sergio Alvarez (5), Bernhard Rappenglück (5), James D. Allan (6), John S. Holloway (1,7), Paola Massoli (8), Karl D. Froyd (1,7), Shane M. Murphy (7), Jiumeny Liu (9), Rodney J. Weber (9), Jose L. Jimenez (1,2)
- Y15: AIRBORNE MEASUREMENTS OF AEROSOL EXTINCTION RELATIVE HUMIDITY ENHANCEMENT**  
Justin M Langridge(1,2), Daniel A. Lack (1,2), Mathews S. Richardson (1,2), Daniel C. Law(2), Roya Bahreini(1,2), Ann M. Middlebrook(2), Charles A. Brock(2) and Daniel M. Murphy(2)"
- Y16: PRECIPITATING CLOUD-SYSTEM RESPONSE TO AEROSOL PERTURBATIONS**  
Seoung-Soo Lee (1,2) and Graham Feingold (1)
- Y17: LATITUDINAL TRENDS OF CHLOROPHYLL CONCENTRATION IN THE MID-PACIFIC OCEAN.**  
Brandi McCarty(1,2), James Churnside(2)
- Y18: TEMPERATURE DEPENDENT RATE COEFFICIENTS FOR OH + BUTANOL REACTIONS IN THE GAS PHASE**  
Max R. McGillen (1), Munkhbayar Baasandorj (2), James B. Burkholder (3)
- Y19: OZONE TRANSPORT FROM THE FREE TROPOSPHERE INTO THE LOS ANGELES BASIN**  
J. A. Neuman (1,2), M. Trainer (2), K. C. Aikin (1,2), W. M. Angevine (1,2), J. Brioude (1,2), S. S. Brown (2), W. P. Dube (1,2), J. S. Holloway (1,2), J. B. Nowak (1,2), D. D. Parrish (2), I. B. Pollack (1,2), J. M. Roberts (2), T. B. Ryerson (2), and N. L. Wagner (1,2)

**Y20: AIRBORNE CHEMICAL IONIZATION MASS SPECTROMETRY MEASUREMENTS OF AMMONIA AND IMPLICATIONS FOR AMMONIUM NITRATE FORMATION IN CALIFORNIA**

John B. Nowak (1,2), J. Andrew Neuman (1,2), Roya Bahreini (1,2), Ann Middlebrook (2), Charles A. Brock (2), Gregory J. Frost (1,2), John S. Holloway (1,2), Stuart A. McKeen (1,2), Jeff Peischl (1,2), Ilana Pollack (1,2), James M. Roberts (2), Thomas B. Ryerson (2), Michael Trainer (2), and David D. Parrish (2)

**Y21: VARIABILITY OF ORGANIC AEROSOL ENHANCEMENT AND OXIDATION FROM INTENSE PHOTOCHEMICAL PROCESSING OF BIOMASS BURNING SMOKES DURING FLAME-3**

Amber M. Ortega(1,2), William H. Brune(4), Michael J. Cubison(1,3), Douglas A. Day(1,3), Christopher J. Hennigan(5), Gabriella J. Engelhart(5), Marissa A. Miracolo(5), Allen L. Robinson(5), and Jose L. Jimenez(1,3)

**Y22: HETEROGENEOUS INTERACTION OF N<sub>2</sub>O<sub>5</sub> WITH HCL DOPED H<sub>2</sub>SO<sub>4</sub> UNDER STRATOSPHERIC CONDITIONS: CLNO<sub>2</sub> AND CL<sub>2</sub> YIELDS**

Ranjit K. Talukdar (1,2) J. B. Burkholder (2) James M. Roberts (2), Robert W. Portmann (2) and A.R. Ravishankara (2)

**Y23: MARINE BOUNDARY LAYER OBSERVATIONS AND SOURCE STUDIES ON GLYOXAL AND HALOGEN OXIDES**

Sunil Baidar<sup>1,2</sup>, Sean Coburn<sup>1</sup>, Barbara Dix<sup>1</sup>, Tiffany Duhl<sup>3</sup>, Alex Guenther<sup>3</sup>, Michael Lechner<sup>1</sup>, Hilke Oetjen<sup>1</sup>, Ivan Ortega<sup>1</sup>, Roman Sinreich<sup>1</sup>, Ryan Thalman<sup>1</sup>, Eleanor Waxman<sup>1</sup>, Rainer Volkamer<sup>1,2</sup>

**Y24: VERTICAL PROFILES OF N<sub>2</sub>O<sub>5</sub> AND CLNO<sub>2</sub> FROM THE BAO TOWER IN ERIE, CO**

Nick Wagner(1), William Dub\_(1), Cora Young(1), Theran Riedel(2), Joel Thornton(2), Steve Brown(3)

**Y25: MEASUREMENT OF ATMOSPHERIC OZONE BY CAVITY RING-DOWN SPECTROSCOPY**

R. A. Washenfelder(1,2), N. L. Wagner(1,2), W. P. Dube(1,2), and S. S. Brown(2)

**Y26: A CASE STUDY FOR SOA FORMATION BY GLYOXAL PROCESSING IN AQUEOUS AEROSOL IN MEXICO CITY**

Eleanor Waxman (1,2), Barbara Ervens (2,3) and Rainer Volkamer (1,2)

**Y27: EVALUATION OF THE INDUSTRIAL POINT SOURCE EMISSION INVENTORY FOR THE HOUSTON SHIP CHANNEL AREA USING SHIP-BASED, HIGH TIME RESOLUTION MEASUREMENTS OF VOLATILE ORGANIC COMPOUNDS**

Daniel Bon (1,2,3), Joost de Gouw (2,3), Jessica Gilman (2,3), William Kuster (2,3), Carsten Warneke (2,3), Brian Lerner (2,3), Eric Williams (2,3), Greg Frost (2,3)

**Y28: DELIQUESCENCE, EFFLORESCENCE AND ICE NUCLEATING ABILITY OF NaCl / HYDRATED NaCl PARTICLES UNDER UPPER TROPOSPHERIC CONDITIONS**

Matthew E. Wise (1,2), Kelly J. Baustian (2,3), Thomas Koop (4), Miriam Freedman (5), Eric J. Jensen (6) and Margaret A. Tolbert (1,2)

**Y29: COOLING OF ENTRAINED PARCELS IN A LARGE-EDDY SIMULATION**

Takanobu Yamaguchi (1)(2), David A. Randall (3), Graham Feingold (2)

**Y30: NITROUS ACID MEASUREMENTS IN URBAN LOS ANGELES USING NOVEL TECHNIQUES**

C. J. Young (1,2), R.A. Washenfelder (1,2), S.S. Brown (2), P. Veres (1,2), A.K. Cochran (3), J.M. Roberts (2), O. Pikel'naya (4), C. Tsai (4), J. Stutz (4), C. Afif (5,6), V. Michoud (5), A. Borbon (5)

**Y31: PHOTOCHEMISTRY OF PYRUVIC ACID IN AQUEOUS SOLUTION**

Molly C. Larsen and Veronica Vaida

**WEATHER AND CLIMATE DYNAMICS DIVISION****G1: RECENT ENHANCEMENTS TO REAL-TIME PROBABILISTIC THUNDERSTORM GUIDANCE PRODUCTS FROM A TIME-LAGGED ENSEMBLE OF HIGH RESOLUTION RAPID REFRESH (HRRR) FORECASTS**

Curtis Alexander (1), Doug Koch (2), Steve Weygandt (3), Tanya Smirnova (1), Stan Benjamin (3), and Eric James (1)

**G2: COMPARATIVE STUDY OF THE IONOSPHERIC BEHAVIOR AND IRI PERFORMANCE FOR THE LAST TWO SOLAR MINIMA**

Eduardo A. Araujo-Pradere(1) and Dominic J. Fuller-Rowell(2)

**G3: ANNUAL VARIABILITY OF BOUNDARY LAYER HEIGHT AND ITS CORRELATION TO OTHER METEOROLOGICAL VARIABLES IN CALIFORNIA'S CENTRAL VALLEY**

Laura Bianco (1), Irina V. Djalalova (1), Clark W. King (2), and James M. Wilczak (2)

**G4: CLIMATE CHANGE IN UPPER-OCEAN STRATIFICATION AS INFERRED FROM THE IPCC-AR4 MODELS**

Antonietta Capotondi

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Gilbert P. Compo(1,2), Prashant D. Sardeshmukh(1,2)

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Sean M. Davis (1,2), Karen H. Rosenlof (1)

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Juliana Dias (1), Olivier Pauluis (2)

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Mariangel Fedrizzi (1) , Timothy J. Fuller-Rowell (1), Mihail Codrescu (2)

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Tim Fuller-Rowell (1,2), Rashid Akmaev (2), Houjun Wang (1,2), Fei Wu (1,2), Tzu-Wei Fang (1,2), Mihail Codrescu (2)

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Thomas J. Galarnau, Jr. (1), Thomas M. Hamill (2), and Jeffrey S. Whitaker (2)

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Eric Gordon (1), Roberta Klein (2)

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Aaron Pi\_a(1,2), Leslie M. Hartten(3,4), and Laura Bianco(3,4)

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Patrick Hofmann (1), C. R. Alexander (1), S. S. Weygandt (2), and S. G. Benjamin (2)

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Chengmin Hsu (1), Lynn Johnson (2), Timothy Schneider (3)

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Mimi Hughes(1,2), Paul Neiman (2), Ellen Sukovich (1,2)

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Darren L. Jackson (1), Gary A. Wick (2)

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Eric James (1), Curtis Alexander (2), Steve Weygandt (3), Stan Benjamin (4), and John Brown (5)

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Paul T.M. Loto'aniu (1),(2),(3), H.J. Singer (2), C.L. Waters (4), V. Angelopoulos (3), I.R. Mann (5), S.R. Elkington (6), J.W. Bonnell (7)

- G19: RESPONSE OF THE COUPLED IT SYSTEM TO STORM TIME IONOSPHERIC ELECTRODYNAMICS**  
Naomi Maruyama (1), Timothy J Fuller-Rowell (1), Mihail Codrescu (2), David N Anderson (1), Arthur D Richmond (3), Astrid Maute (3), Stanislav Sazykin (4), Frank Toffoletto (4), Robert W Spiro (4), Richard Alan Wolf (4)
- G20: W-BAND SPACEBORNE RADAR OBSERVATIONS OF ATMOSPHERIC RIVER EVENTS**  
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N. Matsui (1,2), David Halliwell (3), C. N. Long (4), John Augustine (2) and Taneil Uttal (2)
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Tomoko Matsuo (1), Mariangel Fedrizzi (1), Tim Fuller-Rowell (1), and Mihail Codrescu (2)
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David M. Anderson (1), Bruce Bauer(1), Rodney Buckner (1), Ed Gille (2), Wendy Gross (1), Michael Hartman (2), Carrie Morrill (2), Anju Shah (2), Eugene Wahl (1)
- G24: CASE STUDY OF A HIGH WIND EVENT OFF THE COAST OF THE PRINCE OLAV MOUNTAINS, ANTARCTICA**  
Melissa A. Nigro (1), John J. Cassano (2)
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Amy Solomon (1), M. Shupe (1), P. O. G. Persson (1), and H. Morrison (2)

**G29: PROGRESS TOWARD A NOAA-ESRL EARTH SYSTEM MODEL: COUPLING AN ATMOSPHERE TO AN OCEAN**

Shan Sun (1) and Rainer Bleck (2)

**G30: WHOLE ATMOSPHERE DATA ASSIMILATION AND FORECAST EXPERIMENTS**

Houjun Wang (1), Tim Fuller-Rowell (1), Rashid Akmaev (2)