



2010 IRIS Workshop

June 9-11, 2010 • Snowbird Resort, Snowbird, Utah



2010 IRIS Workshop

Program Information

The 2010 IRIS Workshop will celebrate the 25th anniversary of IRIS - and look ahead to an exciting future for the Earth sciences. With the recent publication of "Seismological Grand Challenges in Understanding Earth's Dynamic Systems," the IRIS Consortium of over 110 U.S. universities has a very special opportunity: to use these Grand Challenges to shape plans for continuing evolution of the facilities that support geophysical research.

SCIENCE PROGRAM CHAIRS

Mike Brudzinski - Miami University of Ohio
Ed Garnero - Arizona State University
Stéphane Rondenay - Massachusetts Institute of Technology

AIRPORT SHUTTLE INFORMATION

Canyon Shuttle Service from Salt Lake City International Airport to Resort is \$60 roundtrip/person plus gratuity. Cancellations within 48 hours are non-refundable.

Canyon Shuttle Service has a desk at Snowbird in the Cliff Lodge on lower level one, the same level that you will arrive. You can call from any house phone at Snowbird by dialing RIDE (7433).

INTERNET ACCESS

Wireless Internet access is complimentary in the guest rooms and public areas. It will also be available in the Plenary Session Room (Ballroom 2-3) and Event Center (poster area).

POSTER SESSIONS

The poster session location for the IRIS Workshop is going to be in the Event Center, a 15,000 square-foot event tent. The Event Center is a three-minute walk from the Cliff Lodge, where the workshop meeting rooms are located. Please visit the Registration table for walking directions.

Posters will remain up throughout the meeting. You may begin to hang posters after 5:00pm on Tuesday, June 8. Posters need to be torn down by 4:00pm on Friday. Poster numbers are located in the first column of the table in the poster index of this program. Additionally, IRIS' core programs will have tables displaying publications and posters.

FIELD TRIPS

You must be registered to attend the Wasatch Water Tunnel Tour or the Geology of the Central Wasatch Mountains bus tour.

Field trip attendees for the Wasatch Water Tunnel Tour should have lunch in the Conference Center Tent before meeting in the Cliff Lodge Lobby at 1:45pm. A second tour will be determined based on the number of registrants, which would begin at 3pm. Please look for more information at the Registration table.

Field trip attendees for the Geology of the Central Wasatch Mountains bus tour should grab a boxed lunch from the Registration area before meeting in the Cliff Lodge Lobby at 12:30pm.

SPECIAL INTEREST GROUP MEETINGS ON WEDNESDAY (Open to all)

Hydrogeophysics — *Beatrice Magnani, Lee Liberty*

Near-surface geophysics is playing an increasingly important role in hazard studies, climate studies, and water resource issues. This SIG will explore how researchers in the near-surface geophysics community can be better integrated with and served by IRIS. Researchers in hydrogeophysics, engineering geophysics, hazards, climate, archeology and the cryosphere could all benefit from the infrastructure and support of the IRIS community, which in turn could benefit from increased input of researchers in these diverse fields. We will discuss ways to engage each community so that IRIS can improve near-surface geophysics instrumentation needs and address data archival and storage concerns.

GSN Data Quality — *Tim Ahern, Rhett Butler, Kent Anderson*

Recent issues related to the quality of data from GSN stations have been identified. Both the IRIS DMS and IRIS GSN share the responsibility to identify the known issues, make plans to detect and correct issues related to data quality, and communicate data quality issues to the IRIS community. The purpose of this SIG is to insure that the IRIS community understands these issues as they may affect the use of the data in individual research. Discussions are planned that will include the ASL and IDA data collection centers' current practice, how IRIS is planning to address data quality issues, and how future systems will monitor data quality and insure correctness of time series data and the metadata that describe them. While this SIG will focus on GSN data quality issues, the techniques are intended to be extended to most data received by the IRIS DMC.

International Development Seismology — *Art Lerner-Lam, Noel Barstow*

Discussion of various aspects of international

development from the perspective of seismology research. Topics will include scientific and technical workforce development, science impact on hazard mitigation and disaster preparedness, promotion of international scientific collaboration with and in developing countries, including non-traditional funding opportunities, and the importance of leveraging resources among diverse sectors to sustain research investments. This session will provide an opportunity for the community to become aware of ongoing IDS activities at IRIS, and to contribute to the setting of priorities for future engagement in international development.

SPECIAL INTEREST GROUP MEETINGS ON THURSDAY (Open to all)

MatLab — *Ken Creager (U. of Washington), Darren Hart (Sandia Nat. Lab.)*

MatLab is gaining popularity in the seismological community. It is timely to assemble interested MatLab users together to discuss existing MatLab tools, identify unfilled needs, summarize DMS plans for supporting information flow into MatLab, and a variety of related details. We plan to discuss include how the DMS can facilitate support of MatLab by hosting existing modules, supporting the development of needed capabilities, and organizing a MatLab users group (similar to the SAC users group) within the Earth sciences community.

Magnetotellurics — *Paul Bedrosian, Dean Livelybrooks, Stéphane Rondenay*

The open availability of EarthScope Magnetotelluric (MT) data, combined with recent advances in 3D inversion and innovative approaches to data integration, including joint interpretation/analysis of seismic and MT data, are producing insight into Earth processes on a range of scales. This session will provide a brief introduction to the MT method followed by a sampling of recent MT studies and their relevance to problems in Earth Science.

Resources for teaching about the Grand Challenges in Seismology — *Bob Butler and E&O staff*

The SIG will start with an overview of our joint CCLI project with Maggie Benoit to create undergrad labs related to the Grand Challenges, and may include presentations by faculty who have applicable exercises they are willing share. Much of the SIG will be a discussion to help us flesh out the activities that are not yet well developed. This is an important focus for E&O for the next few years, and input from the community will help us create exercises that fill their needs.

GeoPRISMS and Seismology: Opportunities for Amphibious Studies at Continental Margins — *Geoff Abers, Julie Morgan, Susan Bilek*

GeoPRISMS will be a new NSF science program building on the previous MARGINS program, which continues to focus on amphibious interdisciplinary science at rift and subduction margins. We will present highlights from the past MARGINS program, outline the recently approved GeoPRISMS Draft Science Plan, and describe the upcoming Implementation Workshops where scientific approaches will be refined, with emphasis on opportunities for the IRIS community. This SIG will provide an opportunity to discuss the many possible linkages between this new NSF program and other programs and facilities both onshore and offshore.

SPECIAL INTEREST GROUP MEETINGS ON FRIDAY (Open to all)

How to best access seismic data for undergraduate education: What should software be capable of? — *Glenn Kroeger and E&O staff*

With the development of web services at the DMC, it will become easier to access raw and processed waveform data, and now is the time to determine what functionality would be most useful for undergraduate labs and exercises.

We will provide examples of what faculty are already doing, and will ask for input on what could be done with the right interface. This is an important element in the E&O section of the IRIS proposal, and it would be valuable to get additional input from the community before the proposal is submitted.

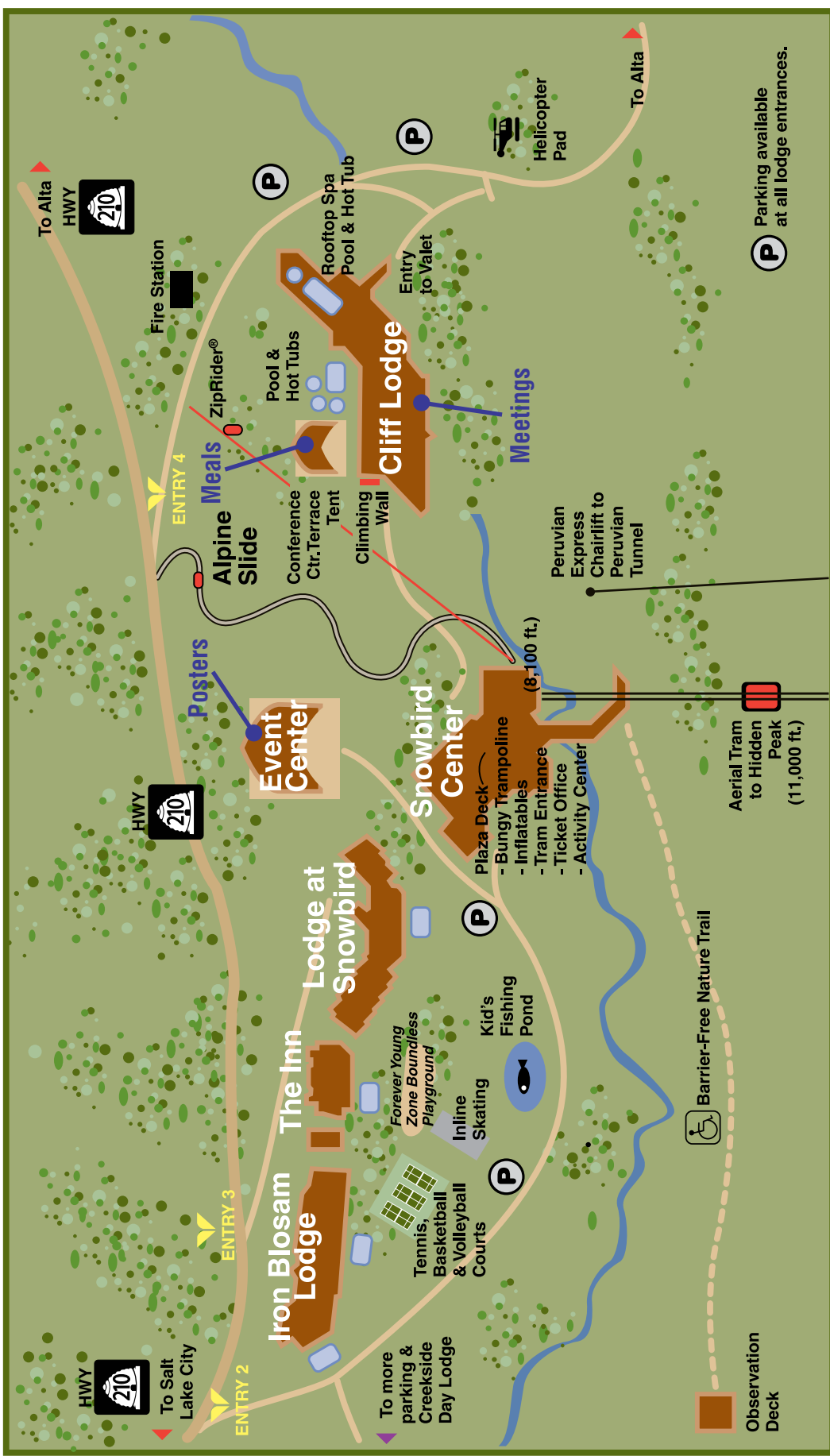
Comprehensive Nuclear Test Ban Treaty and Seismology — *Bill Walter, Keith Koper*

Since underground nuclear testing began, advances in seismology have been important both for national security and for support of treaties that limit testing. Conversely, this application of seismology has motivated construction of facilities, at times generously funded programs for individual research projects, and innovation in data processing and waveform modeling - all with benefits to many aspects of seismology. This is a forum for discussing the programs, facilities, and data needed to meet evolving challenges in nuclear explosion monitoring.

PIC Kitchen — *Jim Fowler*

PIC (PASSCAL Instrument Center) and the DMC (Data Management Center) developed an archival processing package called "PIC KITCHEN". It is based on the HDF5 data format, and attempts to move past the limitations of the current assembled data set archival system. The PIC KITCHEN organizes data and meta-data for an experiment into PASSCAL HDF5 format (PH5). This can be quickly and easily transferred to the DMC. Future or last minute updates, corrections, or additions can be folded into small text files, sent and incorporated with the original data set at the DMC. This process allows the data to be submitted to the DMC, fresh from the field. Corrections to the meta-data can be made directly in the archive. Sometimes frequent tedious "down loading," "up loading" and "re-archiving" is eliminated. Data can also be requested from the DMC in a variety of formats. The intact, raw data and meta-data are extracted from the HDF5 file and converted to the desired format via a web form.

Snowbird Village Map



Cliff Lodge Conference Center



THE CLIFF LODGE (Level B)

Breakouts

Meals



CLIFF LODGE (Level C)

Breakouts

snowbird village map

winter season

CLIFF LODGE/CONFERENCE CENTER

- Aerie Lounge
- Aerie Restaurant & Sushi Bar
- Atrium Restaurant
- Camp Snowbird Children's Center
- Cliff Spa, Salon & Spa Shop
- Cliff Sports, Gear Rental, Tuning & Repair
- Cliff Sundries
- Conference Center
- El Chanate Restaurant
- El Chanate Cantina
- Marco Polo's Silk Road Treasures
- Superior Snacks

SNOWBIRD CENTER

- Activity Center
- Aerial Tram
- Baked & Brewed at the Bird
- The Birdfeeder
- Center Sundries & Pharmacy
- Christy Sports & Gear Rental
- Cottonwood Canyons Realty
- Forklift Restaurant
- General Gritts Grocery & Deli
- Kühl Häus
- Snowbird Sports
- Medical Clinic
- Meeting Rooms: Alpine, Peruvian, Cottonwood, Columbine
- Tram Car Pizza
- Plaza Deck
- Powder Shots/Superior Photo
- Rendezvous Restaurant
- Steak Pit Restaurant
- Superior Ski Tuning & Repair
- Ticket Sales
- Tram Club
- Wine & Liquor Store
- Wings, Snowbird Logo Store

LODGE AT SNOWBIRD

- Aspen Room
- Lodge Bistro
- Lodge Bistro Lounge
- Willows Room
- Sun Room

THE INN

IRON BLOSAM LODGE

- Wildflower Lounge
- Wildflower Restaurant

CREEKSIDE

- Creekside Cafe & Grill
- Lift Ticket Sales
- Creekside Rentals & Accessories

Entry One

Little Cottonwood Canyon Road

To Salt Lake City: 25 Miles

To Alta: 1.5 Miles

Superior Parking Lot

Wasatch Powderbird Guides

Avalanche Rescue Training Center

Covered Parking

Entry Four

Peruvian Express Detachable Quad

Chickadee Chairlift

Chickadee Bowl

Aerial Tram

Austin Pond

Entry Three

Entry Two

Wilbere Chairlift

Gad Valley Parking

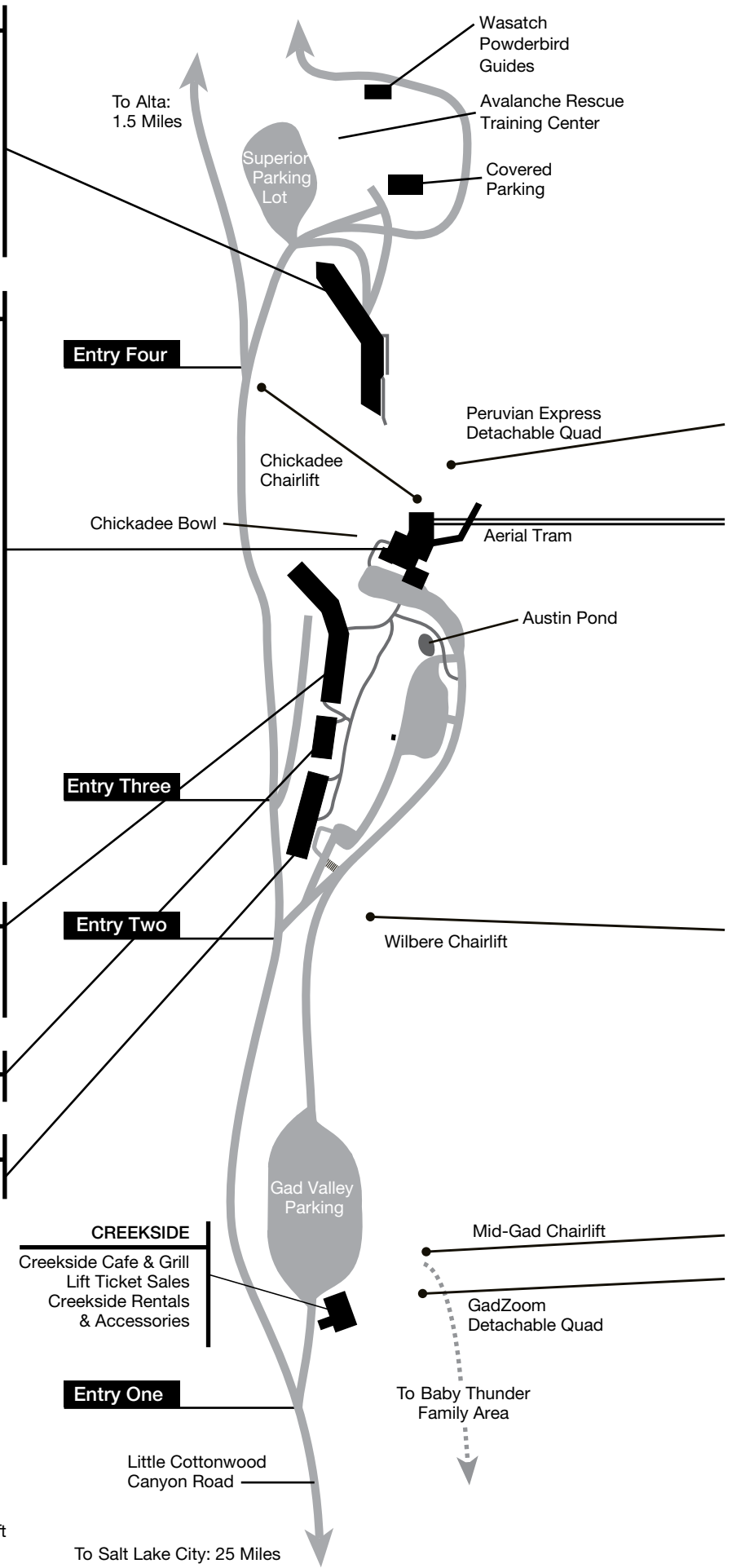
Mid-Gad Chairlift

GadZoom Detachable Quad

To Baby Thunder Family Area

Walking Paths

Scale: 1 inch = 400 feet
0 1/2" 1" 200 ft 400 ft





2010 IRIS Workshop

Agenda

TUESDAY, JUNE 8

4:00PM - 7:00PM	REGISTRATION	Ballroom Lobby
7:30PM - 9:00PM	STUDENTS AND POST-DOCS RECEPTION - INVITATION ONLY <i>Hors d'oeuvres and cash bar for students and post-docs participating in the Workshop to meet with senior IRIS staff, and members of the Board of Directors.</i>	Magpie

WEDNESDAY, JUNE 9

7:00AM - 8:30AM	BREAKFAST	Conference Center Tent
7:00AM	REGISTRATION	Ballroom Lobby
8:30AM - 11:00AM	WELCOME AND PLENARY SESSION: THE SCIENCE AND POLICY OF DEADLY EARTHQUAKES <i>Paul Earle, Wayne Pennington – Session Organizers</i> Reducing the Impact of Devastating Earthquakes: How USAID/OFDA Uses the Science of Seismology <i>Laura Powers, USAID</i> A Surge of Great and Deadly Earthquakes <i>Thorne Lay, University of California Santa Cruz</i> NEIC: Earthquake Loss and Epidemiology <i>Emily So, USGS</i> Lessons From Catastrophic Disasters <i>Rob Olshansky, University of Illinois</i>	Ballroom 2 - 3
11:00AM - 12:30PM	POSTERS - SESSION 1 <i>Refreshments available</i>	Event Center
12:30PM - 2:00PM	LUNCH	Conference Center Tent

2:00PM - 2:15PM GROUP PHOTO Cliff Lodge Patio

2:30PM - 4:30PM **PLENARY SESSION: EXPLORATION AND NEAR-SURFACE SEISMOLOGY** Ballroom 2 - 3
Beatrice Magnani, Felix Herrmann – Session Organizers
Recent Advances in Regularization and De-noising of Large Data Sets for Exploration Seismology
M.D. Sacchi, University of Alberta
Sub-Nyquist Sampling and Sparsity: Getting More Information From Fewer Samples
Felix Herrmann, University of British Columbia
Paleoclimate and Underway Geophysics Studies at High Latitude Using a Small Research Vessel: Results from Lago Fagnano, Tierra del Fuego
Jamie Austin, University of Texas Austin
Some Stupid Shallow Seismic Experiments I Have Done
Don Steeples, University of Kansas

4:30PM - 6:00PM **SIG MEETINGS, SESSION 1** Wasatch A
Hydrogeophysics Magpie A
GSN Data Quality Magpie B
International Development Seismology

6:30PM - 8:30PM DINNER Conference Center Tent

THURSDAY, JUNE 10

7:00AM - 8:30AM BREAKFAST Conference Center Tent

7:00AM - 8:30AM “EARLY CAREER” BREAKFAST FOR JUNIOR FACULTY, RESEARCHERS AND POST DOCS Magpie B
Please sign up when you register at Snowbird

8:30AM - 9:00AM IRIS CORE PROGRAMS PROPOSAL Ballroom 2 - 3

9:00AM - 11:00AM **PLENARY SESSION: MANTLE DYNAMICS: FROM TOP TO BOTTOM** Ballroom 2 - 3
Brian Kennett, Maureen Long – Session Organizers
The Development of Seismic Arrays and Array Methods
Brian Kennett, Australian National University
Lithosphere-Asthenosphere Interactions Beneath the Western US
Richard Allen, University of California Berkeley

Imaging Mantle Dynamics in the Transition Zone

Nick Schmerr, Carnegie Institution of Washington

Structure and Dynamics of the D" Region

James Wookey, University of Bristol

Stacking of Dense Array Data to Image Giant and Deep Earthquakes

Miaki Ishii, Harvard University

11:00AM - 12:30PM

SIG MEETINGS - SESSION 2

MatLab

Wasatch A

Magnetotellurics

Magpie A

Resources for Teaching about the Grand Challenges

Magpie B

GeoPRISMS

Superior A

12:30PM - 2:00PM

LUNCH

Conference Center Tent

12:30PM - 4:30PM

Wasatch Bus Tour

Cliff Lodge Lobby/Entrance

Pick up boxed lunches at Registration table

2:00PM - 3:00PM

Water Tunnel Tour

Cliff Lodge Lobby/Entrance

Other times TBD

FACILITY MEETINGS

1:30PM - 2:30PM

GSN: *Rhett Butler, Xiaodong Song*

Magpie A

2:00PM - 3:00PM

PASSCAL: *Jim Fowler, Richard Allen*

Magpie B

2:30PM - 3:30PM

DMS: *Tim Ahern, Keith Koper*

Wasatch A

3:00PM - 4:00PM

E&O: *John Taber, Glenn Kroeger*

Superior B

3:30PM - 4:30PM

Polar Activities: *Kent Anderson*

Magpie A

4:00PM - 5:00PM

USArray: *Bob Woodward, Matt Fouch*

Magpie B

4:30PM - 6:00PM

POSTERS - SESSION 2

Event Center

Refreshments available

6:30PM - 9:00PM

**DINNER AND CELEBRATION OF
TWENTY-FIVE YEARS OF IRIS**

Conference Center Tent

FRIDAY, JUNE 11

7:30AM - 9:00AM

BREAKFAST

Conference Center Tent

9:00AM - 11:00AM	PLENARY SESSION: EARTHQUAKE SCIENCE: TRIGGERING, TREMOR, AND TRANSIENT SLIP <i>Greg Beroza, Zhigang Peng – Session Organizers</i> Deep Slow Earthquake Activities in Nankai Subduction Zone, Southwest Japan <i>Kazushige Obara, NIED</i> PNSN Tremor Observations <i>Aaron Wech, University of Washington</i> Low Frequency Earthquakes <i>Justin Brown, Stanford University</i> Numerical Modeling and Observation of Tremor in Southern California and Peru <i>Jean-Paul Ampuero, Caltech</i>	Ballroom 2 - 3
11:00AM - 12:30PM	POSTERS - SESSION 3 <i>Refreshments available</i>	Event Center
12:30PM - 2:00PM	LUNCH	Conference Center Tent
12:30PM - 2:00PM	INSTRUMENTATION COMMITTEE MEETING <i>Members Only</i>	Superior A
12:30PM - 2:00PM	DATA PRODUCTS WORKING GROUP <i>Members Only</i>	Superior B
2:00PM - 3:30PM	SIG MEETINGS - SESSION 3 Seismic Data for Undergraduate Education Comprehensive Nuclear Test Ban Treaty and Seismology PIC Kitchen	Magpie A Magpie B Wasatch A
3:30PM - 5:30PM	COMMUNITY DISCUSSION: BEYOND EARTHSCOPE AND THE FIRST 25 YEARS OF IRIS <i>Ed Garnero, Stéphane Rondenay, Mike Brudzinski</i> <i>Seismologists at a variety of stages in their careers (Brian Kennett, Greg Beroza, Barbara Romanowicz, Richard Allen, Susan Bilek, Miaki Ishii)</i> <i>will make brief remarks, primarily to simulate discussion among all of the Workshop participants.</i>	Ballroom 2 - 3
6:00PM - 8:00PM	BARBEQUE	Conference Center Tent



2010 IRIS Workshop

Posters

WEDNESDAY, JUNE 9TH

The Science and Policy of Earthquakes and Volcanoes		
Poster #		
1	Christopher Bruton - University of Alaska Fairbanks / Alaska Volcano Observatory	Parameter Calculation from Volcanic Seismic Data
2	Pamela Moyer - New Mexico Institute of Mining and Technology	Apparent Stress Variations at the Osa Peninsula Costa Rica and the Role of Subducting Topography
3	Melissa Moore Driskell - CERI-University of Memphis	Large-Scale Integration of Arrival Time Datasets for Consistent Tomography Quality Control: A Case Study of Onshore/Offshore Experiments Along The Middle America Trench
4	Hanan Mahdi - UALR	Earthquake Monitoring in the State of Arkansas
5	Alena Leeds - USGS	From the USNSN to the ANSS Backbone Network - The Evolution of USGS National Monitoring Capabilities
6	Ashley Shuler - Lamont-Doherty Earth Observatory	Global Observation of Vertical-CLVD Earthquakes Associated with Active Volcanoes
7	Danielle Sumy - Lamont-Doherty Earth Observatory	Seismicity and Faulting in the Southern Gulf of California
8	Heather DeShon - University of Memphis	Automated Identification of Teleseismically Recorded Depth Phases
9	Deborah Kane - University of California San Diego	Quantifying Rupture Directivity of Small Earthquakes at Parkfield
10	Wen-che Yu - IES Academic Sinica Taiwan	Modeling Temporal Velocity Changes Associated with Great Sumatra Earthquakes
11	Joshua Calkins - Lamont-Doherty Earth Observatory Columbia University	Linked Structural and Geodetic Effects Revealed by Seismic Imaging of the Source Zone of the 1964 Great Alaska Earthquake
12	Jeffrey Lockridge - Arizona State University	Analysis of Spatial and Temporal Seismicity Patterns Within Arizona During the Deployment of the EarthScope Transportable Array (March 2006 to April 2009)
13	Frederick Massin - University of Utah Seismology Research Group	A Real Time Process for Detection Clustering and Relocation of Volcano-Tectonic Events at Piton de Fournaise Volcano
14	Eric Kiser - Harvard University	A Study of Intermediate-Depth Earthquakes using the Back-Projection Technique
15	Guo-chin (Dino) Huang - Rutgers University	Earthquake Source Parameters in Western Tibet

16	Douglas Dreger - UCB	Finite-Source Parameters and Scaling of Micro-Repeating Earthquakes at Parkfield
17	Angela Chung - Stanford University	Results from Quake-Catcher Network Rapid Aftershock Mobilization Program (QCN-RAMP) Following the M8.8 Maule Chile Earthquake
18	Jamie Farrell - University of Utah	Evidence of Rapid Volcanic Fluid Migration Modeled for the Intense 2008-2009 Yellowstone Lake Earthquake Swarm and Related GPS-Derived Crustal Extension
19	John Lyons - Michigan Technological University	Strombolian Explosions and Very Long Period Signals at Fuego Volcano Guatemala
20	Zhongwen Zhan - California Institute of Technology	Expanding the Cut-and-Paste (CAP) Methodology to Include Core Phases
21	Gregory Waite - Michigan Technological University	Low-Frequency Earthquakes and SO2 Emissions at Fuego Volcano Guatemala

Exploration and Near-Surface Seismology

Poster #		
22	Colin Zelt - Rice University	Frequency-Dependent Traveltime Tomography For Near-Surface Seismic Data
23	Michael Hedlin - University of California San Diego	Probing the Atmosphere and Atmospheric Sources with the USArray
24	Chunquan Wu - Georgia Institute of Technology	Refined Thresholds for Nonlinear Ground Motion and Temporal Changes of Site Response Associated with Medium Size Earthquakes
25	Kanglin Xu - IRIS	An Introduction to a Field QC Tool, Its Algorithm and Application
26	Keehoon Kim - Dept. of Geological Sciences University of North Carolina at Chapel Hill	Numerical Simulation of Infrasound Radiation from a Volcanic Conduit
27	Kai Wang - Virginia Tech	Controlled-Source Seismic Investigation of the Generation and Collapse of a BATHOLITHS Complex Coast Mountains Western Canada
28	Mahesh Dhar - University of Nevada Reno	Flexible Array Deployment Results in Cross-Constraints Between Station Delays Gravity and Reflection for the Reno-Area Basin Floor Nevada
29	Hongfeng Yang - Saint Louis University	Seismic Structures of the Calico Fault Zone Inferred from Local Earthquake Travel Time and Waveform Modeling
30	Catherine Cox - University of Oklahoma	A Controlled-Source Seismic and Gravity Study of the High Lava Plains (HLP)
31	Annie Kell-Hills - University of Nevada Reno	Complementary Shallow seismic Study of a Low-Angle Failure Plane Mt. Rose Fan Nevada
32	Marvin Speece - Montana Tech	A Seismic Landstreamer Survey at the Hanford Nuclear Site Reveals Faulting and Ice Age Erosion Features in the Basalt Basement
33	Xiaoting Lou - Northwestern University	Can High-Frequency Active-Source Seismology Assist Cave Mapping?
34	Shengji Wei - Caltech	The Complicated Source Process of the April 04 2010 El Mayor-Cucapah Earthquake a Preliminary Result of Joint Inversion of Geodetic and Seismic Data
35	Maria Beatrice Magnani - CERI-University of Memphis	Long-Lived Distributed Deformation in the Mississippi Embayment Central U.S. and Implications for Intraplate Seismicity

36	Anne Sheehan - University of Colorado	Imaging the Roots of the Rockies: The Bighorns Experiment
37	Gabi Laske - Scripps Institution of Oceanography/UCSD	Ocean Wave-Related Long-Term Increase in Microseism Noise Observed in Southern California

THURSDAY, JUNE 10TH

Imaging Mantle Dynamics: From Top to Bottom		
Poster #		
38	YoungHee Kim - California Institute of Technology	Evidence of a Miocene Collision Between the Yucatan Block and Mexico
39	Daoyuan Sun - Carnegie Institution of Washington	Upper Mantle Structures Beneath USArray Derived from Waveform Complexity
40	Maureen Long - Yale University	Testing Mantle Dynamics Models Beneath Southeastern North America with Shear Wave Splitting and Receiver Function Analysis
41	Fenglin Niu - Rice University	Observation of a Mid-mantle Discontinuity Beneath Northeast China from S to P Converted Waves Recorded by the USArray Stations
42	Sanne Cottaar - UC Berkeley	Forward Modeling the Origin of Seismic Anisotropy at the Base of the Mantle
43	Youyi Ruan - Virginia Tech	Two Birds One Stone -- Simultaneously Invert 3-D Velocity and 3-D Anelasticity (Q) Structure Using Surface Waves
44	Douglas Torbeck - University of Illinois	Seismic Velocity Pilot Study of the Midwest and Eastern US using Ambient Seismic Noise Correlation and Receiver Function
45	Jeniffer Masy - Rice University	Seismic Evidence of a Deep Origin of the Mèrida Andes Western Venezuela
46	Adam Dziewonski - Harvard University	Mantle Anchor Structure: Large-scale Platform for Surface Tectonics
47	John West - Arizona State University	EMERALD: Managing the Explosion in Seismic Data
48	Gerardo Leon Soto - New Mexico State University	Seismic Anisotropy in the Northeastern Tibetan Plateau
49	Charles Hutt - USGS Albuquerque Seismological Laboratory	Causes and Corrections for STS-1 Gain Changes in the Global Seismographic Network
50	Adam Ringler - USGS	USGS/GSN Accuracy and Calibration Methods
51	Lind Gee - USGS Albuquerque Seismic Lab	Status Report on the USGS Component of the Global Seismographic Network
52	Brandon Schmandt - University of Oregon	Complex Subduction and Small-Scale Convection Revealed by Body-Wave Tomography of the Western United States Upper Mantle
53	Xiaoting Lou - Northwestern University	Mantle Heterogeneity East of the Rocky Mountains
54	Huaiyu Yuan - Berkeley Seismological Lab	Depth Dependent Azimuthal Anisotropy in the Western US Upper Mantle
55	Barbara Romanowicz - Berkeley Seismological Laboratory	Lithospheric Layering in the North American Craton
56	Cassandra Bilyeu - California State University Northridge	Seismic Tomography of the Columbia River Basalt Province Using Rayleigh Waves

57	Stephen Hernandez - Washington University in St. Louis	East Antarctic Seismic Anisotropy from Shear-Wave Splitting Analysis of AGAP Seismograms
58	Gene Humphreys - University of Oregon	Seismically Imaged Relict Slab from the 55 Ma Siletzia Accretion to Northwest USA
59	Haiying Gao - University of Oregon	Crustal and Lithosphere Structures of the Pacific Northwest with Ambient Noise Tomography and Teleseismic Receiver Functions
60	Igor Morozov - University of Saskatchewan	Automated Management of EarthScope Seismic Datasets Using BREQ_FAST NetDC and Open-Source SQL Databases
61	Cemal Biryol - University of Arizona	Segmented African Lithosphere Beneath Anatolia Imaged by Teleseismic P-Wave Tomography
62	Yuming Zhou - Saint Louis University	Crustal Thickness Variation Across the Bangong-Nujiang Suture in Central Tibet
63	Anna Foster - LDEO/Columbia University	The Velocity Structure of the Western United States from Surface Wave Phase Measurements
64	Fan-Chi Lin - University of Colorado at Boulder	The Stratification of Azimuthal Anisotropy in the Western US and the Construction of Surface Wave Empirical Sensitivity Kernels Based on USArray
65	Andrew Schaeffer - Dublin Institute for Advanced Studies	Seismic Structure of the Lithosphere and Upper Mantle of North America from the Inversion of Surface and S Waveforms
66	Steven Golden - Carnegie Institution of Washington	AcquiML: A New Format for Single Sourcing Seismic Metadata
67	Zhu Zhang - University of Wyoming	Correlation of a 410-km Discontinuity Low Velocity Layer with Velocity Tomograms Along the RISTRA Line Array Sampling Across Utah New Mexico and West Texas
68	Josh Stachnik - University of Wyoming	Tau-P Depropagation of Five Regional Earthquakes Recorded by the EarthScope USArray to Constrain the Upper Mantle Velocity Profiles and 410-km Discontinuity Velocity Gradient
69	Gary Pavlis - Indiana University	Three-Dimensional Wavefield Imaging of the Western US with the Earthscope Transportable Array
70	Frederick Pearce - Massachusetts Institute of Technology	Imaging with Scattered Teleseismic Waves: Data Method and Application to the Hellenic Subduction Zone
71	Weisen Shen - University of Colorado at Boulder	Tracking the Progress of USArray: The Crust and Upper Mantle Beneath the Transitional Region Between the Tectonic Western US and the Cratonic US
72	Rhett Butler - IRIS and University of Hawaii	Antipodal Observations of Earth's Core
73	Patrick Karel - Miami University	Seismic Analysis of the Tonga Subduction Zone and Implications on the Thermo-Petrologic Evolution of Deep Subduction
74	Erin Wirth - Yale University	Seismic Anisotropy Beneath the Japan Subduction Zone from Shear Wave Splitting and Teleseismic Receiver Functions
75	Paula Chojnacki - Scripps Institution of Oceanography	Rayleigh Wave Azimuthal Anisotropy Observed During the Hawaiian PLUME Project
76	Yuanyuan Fu - University of Houston	Synthetic Modeling of Shear Wave Splitting in Iceland
77	Vera Schulte-Pelkum - University of Colorado at Boulder	Strung Out in Vegas and Dumped in Death Valley: The Terminal Fate of Ancient Lithosphere in the Central Basin and Range

78	Nozomu Takeuchi - University of Tokyo	Fine-Scale Heterogeneities of the D" Discontinuity and their Correlation to Volumetric Velocity Fluctuations
79	Steven Hansen - University of Wyoming	Constraints from Receiver Functions and Ambient Noise Tomography on the Structure and Support of the Colorado Rocky Mountains from the CREST Experiment
80	Aibing Li - University of Houston	Shear Wave Model of Southern Africa from Regional Rayleigh Wave Tomography with 2-D Sensitivity Kernels
81	Meghan Miller - University of Southern California	Lithospheric Structure Beneath the Colorado Plateau
82	Josh Stachnik - University of Wyoming	The Isabella Anomaly Imaged by Earthquake and Ambient Noise Rayleigh Wave Dispersion Data: A Composite Anomaly of Sierra Nevada Batholith Root Foundering and Pacific Plate Slab-Flap Translation?
83	Risheng Chu - Caltech	Slab Fossil in the Transition Zone Beneath Nevada
84	Daniela Lindner - Department of Geology University of Illinois at Urbana-Champaign Urbana Illinois USA	Core Rotation and its Variability from Non-Parametric Modeling
85	Zhen J. Xu - University of Illinois at Urbana-Champaign	Surface Wave Tomography of China from Ambient Noise and Earthquake Data
86	Cormier Vernon - University of Connecticut	Modeling Texture and Laterally Varying Structure of the Inner Core
87	Jonathan MacCarthy - New Mexico Institute of Mining and Technology	Teleseismic Traveltime Tomography of the Upper Mantle Beneath the Colorado Rocky Mountains and Constraints on Mantle Support for High Elevations
88	Yun Wang - Brown University	3D High-Resolution Tomography in the Upper Mantle of Gulf of California Region by SEM Seismogram Simulation and Adjoint Inversion

FRIDAY, JUNE 11TH

Data, Methods, and Outreach		
Poster #		
89	Robert Butler - University of Portland	Teachers on the Leading Edge: An Earth Science Teacher Professional Development Program Featuring Pacific Northwest Geologic Hazards
90	Gerry Simila - California State University Northridge	The CSUN-San Fernando Valley High Seismograph (AS-I) Project
91	Perry Houser - University of Texas at El Paso	EarthScope Active Earth Kiosk Display Offers a Dynamic Digital Scientific Exhibit for Museums and Educational Centers
92	Jennifer Eakins - University of California San Diego	The Array Network Facility (ANF): Six Years of the Earthscope USArray TA project
93	Frank Vernon - University of California San Diego	Virtual Seismic Networks: Assessing the Quality of Open Realtime Data
94	Patrick McQuillan - IRIS	Active Earth Display: A Free Computer-Based Earth Science Museum Display
95	Glenn Kroeger - Trinity University	Prototype Cross-Platform Event Analysis Software
96	Luciana Astiz - IGPP Scripps Inst. of Oceanography UCSD	Calibrating USArray with the Aid of Seismic Signals...

97	Tammy Bravo - IRIS	Developing the Regional Tectonic Framework of a Teachable Moment
98	Celso Reyes - Alaska Volcano Observatory Geophysical Institute University of Alaska Fairbanks	The Waveform Suite for MATLAB: A Robust Platform for Accessing and Manipulating Seismic Waveforms in MATLAB
99	Bob Woodward - IRIS	The Status of EarthScope's USArray

Triggering Tremor & Transient Slip

Poster #		
100	Pascal Audet - Berkeley Seismological Laboratory	Temporal Variations in Crustal Scattering Structure Near Parkfield California Using Receiver Functions
101	Chunquan Wu - Georgia Institute of Technology	Dynamic Triggering at the Babaoshan and Huangzhuang-Gaoliying Faults Near Beijing China
102	Stefany Sit - Miami University of Ohio	Single Station Detection of Non-Volcanic Tremor in Cascadia
103	Kristen Schlanser - Miami University of Ohio	Episodic Tremor and Slip Along the Southern Mexican Subduction Zone and Comparisons to Cascadia and Nankai
104	Devin Boyarko - Miami University of Ohio	Tectonic Tremor Throughout the Entire Cascadia Subduction Zone
105	Manahloh Belachew - University of Rochester	Comparison of Dike Intrusions in an Incipient Seafloor Spreading Segment in Afar Ethiopia: Seismic Perspectives
106	Abhijit Ghosh - University of Washington	Initial Results from the Array of Arrays in Cascadia
107	Stephen Holtkamp - Miami University of Ohio	Circum-Pacific Megathrust Earthquake Swarms and Potential Links to Aseismic Slip
108	Heidi Houston - University of Washington	Evolution of Five Episodic Tremor and Slip Events and the Discovery of Rapid Tremor Reversals
109	John Vidale - University of Washington	Patterns of ETS Tremor Migration in Space and Time
110	Justin Brown - Stanford University	Using Autocorrelation to Detect Repeating Events within Tectonic Tremor
111	Justin Sweet - University of Washington	More Low-Frequency Earthquakes in Cascadia
112	Ken Creager - University of Washington	Episodic Tremor and Slip: Cycles Within Cycles
113	Gina Schmalzle - University of Washington	Temporal Variation of Strain in Cascadia Determined by GPS and tremor Locations
114	David Shelly - USGS Menlo Park	Deep Low-Frequency Earthquakes Along the San Andreas Fault Triggered by Regional and Teleseismic Events
115	Zhigang Peng - Georgia Tech	Dynamic Triggering of Tectonic Tremor and Microearthquakes in California by Recent Large Earthquakes



2010 IRIS Workshop

Participants

Geoff Abers

Lamont-Doherty Earth
Observatory
Columbia University
61 Route 9W
Palisades, NY 10964
845-365-8539
abers@ldeo.columbia.edu

Tim Ahern

IRIS Consortium - DMS
1408 NE 45th Street #201
Seattle, WA 98105
206-547-0393
tim@iris.washington.edu

Richard Allen

University of California
Berkeley
307 McCone Hall
Berkeley, CA 94720
510-642-1275
rallen@berkeley.edu

Haydar Al-Shukri

University of Arkansas at
Little Rock
2801 South University Ave
Little Rock, AR 72204
501-569-8000
hjalshukri@ualr.edu

Jean-Paul Ampuero

California Institute of Technology
1200 E. California Blvd, MC 252-21
Pasadena, CA 91125
626-395-6958
ampuero@gps.caltech.edu

Kent Anderson

IRIS Consortium - GSN
30 McLaughlin Lane
Sandia Park, NM 87047
505-22803082
kent@iris.edu

Eliana Arias-Dotson

IRIS Consortium - PASSCAL
100 East Road
Socorro, NM 87801
575-835-5538
eliana@passcal.nmt.edu

Rick Aster

New Mexico Tech University
801 Leroy Place
Socorro, NM 87801
575-835-5924
aster@ees.nmt.edu

Luciana Astiz

Scripps Inst. Of Ocean/
IGPP225
9500 Gilman Dr MC-0225
La Jolla, CA 92093
858-534-2976
lastiz@ucsd.edu

Pascal Audet

Berkeley Seismological
Laboratory
377 McCone Hall
Berkeley, CA 94720
510-502-7972
paudet@berkeley.edu

Jamie Austin

University of Texas at Austin
J.J. Pickle Research Campus
Building 196
10100 Burnet Road (R2200
Austin, TX 78758
512-471-0450
jamie@utig.ig.utexas.edu

Sandra Azevedo

IRIS Consortium - PASSCAL
801 Leroy Place
Socorro, NM 87801
575-835-5090
sazevedo@passcal.nmt.edu

Steve Azevedo

IRIS Consortium - PASSCAL
100 East Road
Socorro, NM 87801
575-835-5078
azevedo@passcal.nmt.edu

Mary Baranowski

IRIS Consortium - HQ
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-628-2220
maryb@iris.edu

Noel Barstow

IRIS Consortium - PASSCAL
100 East Road
Socorro, NM 87801
575-835-5077
barstow@passcal.nmt.edu

Bruce Beaudoin
IRIS Consortium - PASSCAL
100 East Road
Socorro, NM 87801
575-835-5070
bruce@passcal.nmt.edu

Susan Beck
University of Arizona
1040 E. 4th Street
Tucson, AZ 85721
520-621-8628
slbeck@email.arizona.edu

Manahloh Belachew
University of Rochester
60 Crittenden Blvd, Apt. 331
Rochester, NY 14620
585-355-2577
manahloh@earth.rochester.edu

Susan Bilek
New Mexico Tech University
801 Leroy Place
Socorro, NM 87801
575-835-6510
sbilek@nmt.edu

Rick Carlson
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230
703-292-8581
rcarlson@nsf.gov

Cassandra Bilyeu
Cal State Universtiy
Northridge
19230 Knapp Street
Northridge, CA 91324
818-571-9358
cassandra.bilyeu.0@my.csun.edu

Cemal Berk Biryol
University of Arizona
1040 E 4th Street
Tucson, AZ 85721
520-223-7867
cbbiryol@email.arizona.edu

Devin Boyarko
Miami University of Ohio
114 Shideler Hall
Oxford, OH 45056
440-570-3197
boyarkdc@muohio.edu

Jochen Braunmiller
Oregon State University
104 COAS Admin. Bldg
COAS
Corvallis, OR 97331
541-737-3037
jbraunmiller@coas.oregonstate.edu

Tammy K. Bravo
IRIS Consortium
PO Box 87851
Vancouver, WA 98687
360-450-1621
tkb@iris.edu

Justin Brown
Stanford University
397 Panama Mall
Stanford, CA 94305
608-698-2487
jrbrown5@stanford.edu

Mike Brudzinski
Miami University of Ohio
114 Shideler Hall
Oxford, OH 45056
513-280-0660
brudzimr@muohio.edu

Christopher P. Bruton
University of Alaska Fairbanks
903 Koyukuk Drive
Fairbanks, AK 99775
907-699-1916
cpbruton@alaska.edu

Robert Busby
IRIS Consortium - TA
37 Haynes Avenue
Falmouth, MA 02540
508-801-7628
busby@iris.edu

Bob Butler
University of Portland
5000 N Willamette Blvd
Portland, OR 97203
503-943-7780
butler@up.edu

Rhett Butler
IRIS Consortium - GSN
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
rhett@iris.edu

Olga Cabello
IRIS Consortium - HQ
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
olga.cabello@iris.edu

Josh Calkins
Lamont-Doherty Earth
Observatory
Columbia University
61 Rte 9W
Palisades, NY 10960
845-365-8595
jcalkins@ldeo.columbia.edu

Rick Callender
IRIS Consortium
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
callender@iris.edu

Tina Carrick
University of Texas at El Paso
500 W University
El Paso, TX 79968
915-747-5440
tcarrick@utep.edu

Mark Chadwick
GNS Science New Zealand
1 Fairway Drive
Lower Hutt, New Zealand
64.4.570.1444
m.chadwick@gns.cri.nz

Paula Chojnacki
Scripps Institute of Oceanography
University of California San Diego
2131 1/2 Felspar Street
San Diego, CA 92109
909-241-6084
pchojnac@ucsd.edu

Doug Christensen
University of Alaska Fairbanks
903 Koyukuk Drive
Fairbanks, AK 99775
907-474-7426
doug@giseis.alaska.edu

Risheng Chu
California Institute of Technology
1200 E. California Blvd.
MC 252-21
Pasadena, CA 91125
626-395-4143
chur@gps.caltech.edu

Elizabeth Cochran
University of California Riverside
Geology Building -036
Riverside, CA 92521
951-827-4493
cochran@ucr.edu

Ben Coleman
Moravian College
1200 Main Street
Bethlehem, PA 18018
610-625-7781
coleman@cs.moravian.edu

John Collins
Woods Hole Oceanographic
Institution
360 Woods Hole Road
Woods Hole, MA 02543
508-289-2733
jcollins@whoi.edu

Sanne Cottaar
University of California
Berkeley
215 McCone Hall
Berkeley, CA 94720
510-529-8661
sanne@berkeley.edu

Catherine Cox
University of Oklahoma
3117 Ridgecrest Ct
Norman, OK 73072
615-310-5006
cmcox@ou.edu

Trilby Cox
Scripps Institute of
Oceanography
University of California San Diego
1112 Waukesha
Butte, MT 59701
406-498-9995
tacox@ucsd.edu

Ken Creager
University of Washington
Earth and Space Sciences
Seattle, WA 98195
206-685-2803
kcc@ess.washington.edu

Philip Crotwell
University of South Carolina
701 Sumter Street
Columbia, SC 29208
803-777-0955
crotwell@seis.sc.edu

Pete Davis
University of California San Diego
9500 Gilman Drive
La Jolla, CA 92093
858-534-2839
pdavis@ucsd.edu

Heather DeShon
CERI-University of Memphis
3890 Central Avenue
Memphis, TN 38152
901-678-1527
hdeshon@memphis.edu

Bob Detrick
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230
703-292-8571
rdetrick@nsf.gov

LeRoy Dorman
Scripps Institute of
Oceanography
University of California San Diego
9500 Gilman Drive
La Jolla, CA 92093
619-606-4009
ldorman@ucsd.edu

Perle Dorr
IRIS Consortium - HQ
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
dorr@iris.edu

Melissa Moore Driskell
CERI-University of Memphis
3890 Central Avenue
Memphis, TN 38152
256-483-0962
mmdrskll@memphis.edu

Ken Dueker
University of Wyoming
1000 University Avenue
Laramie, WY 82070
307-742-1765
dueker@uwoyo.edu

Adam Dziewonski
Harvard University
20 Oxford Street
Cambridge, MA 02138
978-456-3557
dziewons@eps.harvard.edu

Jennifer Eakins
University of California San Diego
9500 Gilman Dr MC-0225
La Jolla, CA 92093
303-530-3985
jeakins@ucsd.edu

Paul Earle
U.S. Geological Survey
1711 Illinois Street
Golden, CO 80401
303-517-3880
pearle@usgs.gov

Göran Ekström
Lamont-Doherty Earth
Observatory
Columbia University
61 Route 9W
Palisades, NY 10964
845-365-8427
ekstrom@ldeo.columbia.edu

Jamie Farrell
University of Utah
115 S 1460 E
Salt Lake City, UT 84112
801-581-7856
jamie.farrell@utah.edu

Dr. Raafat El-Shafei Fat-Helbary
Aswan Seismological Center
Helwan Cairo, Egypt
202-682-2220
fat_helbary@yahoo.com

Kevin Fenaughty
GNS Science New Zealand
1 Fairway Drive
Lower Hutt 5010
New Zealand
64.570
k.fenaughty@gns.cri.nz

Michele Fitzpatrick
University of Connecticut
88 Three Acre Road
Groton, CT 06340
860-884-1520
mfitz@tvconnect.net

Anna Foster
Lamont-Doherty Earth
Observatory
Columbia University
434 W 120th St Apt 8F
New York, NY 10027
845-365-8460
afoster@ldeo.columbia.edu

Matt Fouch
Arizona State University
PO Box 871404
Tempe, AZ 85284
480-965-9292
fouch@asu.edu

Jim Fowler
IRIS Consortium - PASSCAL
100 East Road
Socorro, NM 87801
575-835-5072
jim@iris.edu

Yuanyuan Fu
University of Houston
4459 N MacGregor Way
Houston, TX 77004
832-494-0986
pkucugfyy@gmail.com

Jim Gaherty
Lamont-Doherty Earth
Observatory
Columbia University
61 Rt 9W
Palisades, NY 10964
845-365-8450
gaherty@LDEO.columbia.edu

Haiying Gao
University of Oregon
2250 Patterson Street Unit 98
Eugene, OR 97405
541-513-8097
hgao@uoregon.edu

Ed Garnero
Arizona State University
School of Earth and Space
Exploration
Tempe, AZ 85287
480-965-7653
garnero@asu.edu

Abhijit Ghosh
University of Washington
UW Earth and Space Sciences
Johnson Hall room 70
Box 351310
4000 15th Avenue NE
Seattle, WA 98195
404-667-7470
aghosh.earth@gmail.com

Steven Golden
Carnegie Institution of
Washington
5241 Broad Branch Rd NW
Washington, DC 20015
202-478-8844
sgolden@ciw.edu

Steve Grand
University of Texas at Austin
1 University Station C1100
Austin, TX 78712
512-471-3005
steveg@maestro.geo.utexas.edu

Marie Green
University of Utah
1016 E. Linden
Salt Lake City, UT 84102
801-609-8853
alisamg@gmail.com

Cansun Guralp
Guralp Systems
12 Southwood Drive
Orinda, CA 94563
925-254-1357
hrademacher@guralp.com

Katrin Hafner
IRIS Consortium - Earthscope/TA
4314 Bella Vista Drive
Longmont, CO 80503
509-899-5449
hafner@iris.edu

Roger Hansen
University of Alaska, Fairbanks
1370 Viewpoint
Fairbanks, AK 99709
907-474-5533
roger@giseis.alaska.edu

Steven Hansen
University of Wyoming
1115 E Flint Street
Laramie, WY 82072
989-277-7766
shansen1@uwyo.edu

Steve Harder
University of Texas at El Paso
Department of Geological Sciences
El Paso, TX 79968
915-747-5746
harder@utep.edu

Darren M. Hart
Sandia National Lab
PO Box 5800, MS 0404
Albuquerque, NM 87185
505-845-2296
dhart@sandia.gov

Danny Harvey
Boulder Real Time Technologies
2045 Broadway Street Suite 400
Boulder, CO 80302
303-442-4946
danny@brtt.com

Tom Hearn
New Mexico State University
Physics Department
Las Cruces, NM 88003
575-646-5076
thearn@nmsu.edu

Michael Hedlin
University of California Santa Cruz
9500 Gilman Drive
La Jolla, CA 92093
858-534-8773
hedlin@ucsd.edu

Sid Hellman
Instrumental Software
Technologies, Inc.
77 Van Dam Street/Suite 9
Saratoga Springs, NY 12866
518-602-0001
s.hellman@isti.com

Stephen Hernandez
Washington University in St. Louis
4118 Flad Avenue
St. Louis, MO 63110
915-615-9851
hernandez.stephen@gmail.com

Felix Herrmann
University of British Columbia
6339 Stores Road
Vancouver, BC
Canada V6T 1Z4
604-822-8628
fherrmann@eos.ubc.ca

Barry Hirshorn
NOAA/NWS/Pacific Tsunami
Warning Center
91-270 Fort Weaver Road
Ewa Beach, HI 96706
808-554-4265
hirshorn@ptwc.noaa.gov

John Hole
Virginia Tech
4044 Derring Hall
Blacksburg, VA 24061
540-231-3858
hole@vt.edu

Stephen Holtkamp
Miami University of Ohio
114 Shideler
Oxford, OH 45056
513-235-8915
stephen.holtkamp@gmail.com

Perry I. Houser
University of Texas at El Paso
500 W University Avenue
El Paso, TX 79968
915-449-2619
pihouser@miners.utep.edu

Dino Huang
Rutgers University
610 Taylor Road
Piscataway, NJ 08854
732-445-4186
huangg3@rci.rutgers.edu

Gene Humphreys
University of Oregon
Department of Geological Sciences
Eugen, OR 97403
541-346-5575
genehumphreys@gmail.com

Bob Hutt
USGS Albuquerque Seismo Lab
PO Box 82010
Albuquerque, NM 87198
505-846-5649
bhutt@usgs.gov

Alexandra Isern
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230
703-292-7581
aisern@nsf.gov

Miaki Ishii
Harvard University
20 Oxford Street
Cambridge, MA 02138
617-384-8066
ishii@eps.harvard.edu

Dr. Awad Ismail
National Research Institute of
Astronomy and Geophysics
Helwan Cairo, Egypt
202-682-2220
awad_hassoup@hotmail.com

Mike Jackson
UNAVCO
6350 Nautilus Drive
Boulder, CO 80301
303-888-0718
jackson@unavco.org

Deborah Kane
Scripps Institute of
Oceanography
University of California San Diego
9500 Gilman Dr MC 0225
La Jolla, CA 92093
858-229-3686
dlkane@ucsd.edu

Pat Karel
Miami University of Ohio
114 Shideler Hall
Oxford, OH 60142
763-412-8420
karelpr@gmail.com

Rich Karstens
IRIS Consortium - DMS
1408 NW 45th Street # 201
Seattle, WA 98117
206-890-2718
rich@iris.washington.edu

Annie Kell-Hills
Nevada Seismological
Laboratory
University of Nevada Reno
1664 N. Virginia Street
Reno, NV 89557
775-762-1256
Kell@seismo.unr.edu

Brian Kennett
The Australian National
University
Mills Road
Canberra ACT 0200
Australia
+61 2 6125 4621
Brian.Kennett@anu.edu.au

YoungHee Kim
California Institute of
Technology
1200 E California Blvd
Pasadena, CA 91125
213-608-6414
ykim@gps.caltech.edu

Keehoon Kim
University of North Carolina
Chapel Hill
104 South Road
Mitchell Hall
Campus Box #3315
Chapel Hill, NC 27599
919-360-0995
keehoon@email.unc.edu

Eric Kiser
Harvard University
20 Oxford St.
Cambridge, MA 02138
618-554-2863
kiser@fas.harvard.edu

Hunter Knox
New Mexico Tech
800 Liles Street
Socorro, NM 87801
505-418-7581
hunter@ees.nmt.edu

Keith D. Koper
Saint Louis University
3642 Lindell Blvd
St. Louis, MO 63108
314-977-3197
kkoper@gmail.com

Glenn Kroeger
Trinity University
1319 Adobe Run
San Antonio, TX 78232
210-999-7607
gkroeger@trinity.edu

Chuck Langston
CERI - University of Memphis
3876 Central
Memphis, TN 38152
901-678-4869
clangstn@memphis.edu

Gabi Laske
Scripps Institute of
Oceanography
University of California San Diego
9500 Gilman Dr. MC 0225
La Jolla, CA 92093
858-534-8774
glaske@ucsd.edu

Jesse Lawrence
Stanford University
397 Panama Mall
Stanford, CA 94305
650-868-5527
jflawrence@stanford.edu

Thorne Lay
University of California Santa Cruz
1156 High Street
Earth and Marine Sciences Bldg.
Santa Cruz, CA 95064
831-459-3164
tlay@ucsc.edu

Alena Leeds

U.S. Geological Survey
Box 25046 DFC MS 966
Denver, CO 80225
303-273-8462
aleeds@usgs.gov

Gerardo Leon Soto

New Mexico State University
1120 Plain St 1A
Las Cruces, NM 88001
575-646-7616
gleon@nmsu.edu

Arthur Lerner-Lam

Lamont-Doherty Earth
Observatory
Columbia University
PO Box 1000
Palisades, NY 10964
845-365-8356
lerner@ldeo.columbia.edu

Aibing Li

University of Houston
4800 Calhoun Road
Houston, TX 77204
713-743-9313
ali2@uh.edu

Lee Liberty

Boise State University
1910 University Drive
Boise, ID 83725
208-426-1166
lliberty@boisestate.edu

Fan-Chi Lin

University of Colorado at
Boulder
Department of Physics
Boulder, CO 80309
303-492-0985
linf@colorado.edu

Leslie Linn

IRIS Consortium - HQ
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
leslie.linn@iris.edu

Dean Livelybrooks

University of Oregon
1274 University of Oregon
Eugene, OR 97403
541.346.5855
dlivelyb@uoregon.edu

Jeff Lockridge

Arizona State University
9750 N. 96th Street #206
Scottsdale, AZ 85258
480-239-2169
lockridge@asu.edu

Maureen Long

Yale University
PO Box 208109
New Haven, CT 06520
203 432-5031
maureen.long@yale.edu

Xiaoting Lou

Northwestern University
1850 Campus Drive
Evanston, IL 60208
847-467-1639
xlou@earth.northwestern.edu

John Louie

University of Nevada Reno
1664 N. Virginia Street MS
0174
Reno, NV 89557
775-784-4219
louie@seismo.unr.edu

John Lyons

Michigan Tech
809 W Franklin Street
Hancock, MI 49930
906-281-2520
jlyons@mtu.edu

Jonathan MacCarthy

New Mexico Tech
801 Leroy Place
Socorro, NM 87801
217-898-4064
jkmacc@nmt.edu

Beatrice Magnani

CERI - University of Memphis
3876 Central Ave
Memphis, TN 38152
901-678-4830
mmagnani@memphis.edu

Hanan Mahdi

University of Arkansas at
Little Rock
2801 South University Ave
Little Rock, AR 72204
501-569-8305
hhmahdi@ualr.edu

Fred Massin

University of Utah
Department of Geology and
Geophysics
F. A. Sutton Building
135 South 1460 East Room 282
Salt Lake City, UT 84112
801-581-7856
fred.massin@utah.edu

Jeniffer Masy

Rice University
6100 Main Street
Houston, TX 77005
713-348-3048
jml5@rice.edu

Daniel McNamara

U.S. Geological Survey
1711 Illinois Street
Golden, CO 80401
303-273-8550
mcnamara@usgs.gov

Patrick McQuillan
IRIS Consortium - E&O
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
mcquillan@iris.edu

Pnina Miller
IRIS Consortium - PASSCAL
100 East Road
Socorro, NM 87801
575-835-5331
pmiller@passcal.nmt.edu

Charles Monfort
Monfort-Lewis LLC
517 Second Street NE
Washington, DC 20002
202-543-5255
cmonfort@monfortlewis.com

Seth Moran
US Geological Survey
1300 SE Cardinal Ct
Vancouver, WA 98683
360-993-8934
smoran@usgs.gov

Juli Morgan
Rice University
Dept Earth Science MS-126
Houston, TX 77005
713-348-6330
morganj@rice.edu

Igor Morozov
University of Saskatchewan
114 Science Place
Saskatoon, Canada S7N5E2
306-966-2761
Canadaigor.morozov@usask.ca

Pamela Moyer
New Mexico Tech
PO Box 2976
Socorro, MN 87801
301-222-7033
pmoyer@nmt.edu

Meredith Nettles
Lamont-Doherty Earth
Observatory
Columbia University
61 Route 9W
Palisades, NY 10964
845-365-8613
nettles@ldeo.columbia.edu

Susan Newman
Seismological Society of
America
201 Plaza Prof Bldg
El Cerrito, CA 94530
510-559-1782
snewman@seismosoc.org

Fenglin Niu
Rice University
6100 Main Street
Houston, TX 77005
713-348-4122
niu@rice.edu

Kazushige Obara
ERI Tokyo University I-1-1
Yayoi Bunkyo, Tokyo 113-0032
Japan
81-29-863-7626
obara@bosai.go.jp

Rob Olshansky
University of Illinois at
Urbana-Champaign
611 Taft Drive
Champaign, IL 61820
217-333-8703
robo@illinois.edu

Lani Oncescu
Geotech Instruments
10755 Sanden Drive
Dallas, TX 75238
214-221-0000
lani.oncescu@geoinstr.com

Jeffrey Park
Yale University
225 Blue Trail
Hamden, CT 06518
203-432-3172
jeffrey.park@yale.edu

Paul Passmore
Refraction Technology Inc.
1600 Tenth St Suite A
Plano, TX 75074
214-440-1265
p.passmore@reftek.com

Gary Pavlis
Indiana University
1001 East 10th Street
Bloomington, IN 47429
812-855-5141
pavlis@indiana.edu

Fred Pearce
Massachusetts Institute of
Technology
173 Otis St. #2
Cambridge, MA 02141
505-310-5628
fpearce@mit.edu

Jim Pechmann
University of Utah
115 South 1460
East Room 383 FASB
Salt Lake City, UT 84112
801-581-3858
pechmann@seis.utah.edu

Zhigang Peng
Georgia Institute of Technology
311 Ferst Drive
Atlanta, GA 30332
440-894-0231
zpeng@gatech.edu

Wayne Pennington
Michigan Technological
University
630 Dow ESE Bldg
Houghton, MI 49931
906-370-9937
wayne@mtu.edu

Chris Powell
CERI - University of Memphis
3876 Central Ave. Suite 1
Memphis, TN 38152
901-678-8455
capowell@memphis.edu

Laura Powers
Office of US Foreign Disaster
Assistance
US Agency for International
Development
1300 Pennsylvania Ave NW
Washington, DC 20523
202-712-1981
lpowers@usaid.gov

Thomas Pratt
US Geological Survey
University of Washington
School of Oceanography
University of Washington
Seattle, WA 98195
206-919-8773
tpratt@ocean.washington.edu

Moira Pyle
Saint Louis University
3642 Lindell Blvd.
St. Louis, MO 63108
314-977-3651
mpyle@slu.edu

Celso Reyes
University of Alaska, Fairbanks
PO Box 750581
Fairbanks, AK 99775
907-347-7788
celsoborealis@gmail.com

Adam Ringler
Albuquerque Seismological Lab
PO Box 82010
Albuquerque, NM 87198
505-846-6116
aringler@usgs.gov

Barbara Romanowicz
University of California Berkeley
215 McCone Hall
Berkeley, CA 94720
510-643-5690
barbara@seismo.berkeley.edu

Stéphane Rondenay
Massachusetts Institute of
Technology
77 Massachusetts Ave Rm 54-618
Cambridge, MA 02139
617-253-6299
rondenay@mit.edu

Youyi Ruan
Virginia Tech
4044 Derring Hall
Blacksburg, VA 24061
540-660-4610
chukren@vt.edu

Teresa Saavedra
IRIS Consortium - HQ
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
teresa@iris.edu

M.D. Sacchi
University of Alberta
11322-89 Avenue
Edmonton, Alberta
Canada T6G 2G7
780-492-1060
sacchi@phys.ualberta.ca

Allan Sauter
IRIS Consortium - PASSCAL
100 East Road
Socorro, NM 87801
575-835-6651
allan.sauter@gmail.com

Andrew Schaeffer
Dublin Institute for Advanced
Studies
5 Merrion Square
Dublin, Ireland
+353-1-653-5147 x248
aschaeff@cp.dias.ie

Kristen Schlanser
Miami University of Ohio
114 Shideler Hall
Oxford, OH 45056
614-404-2343
schlankm@muohio.edu

Gina Schmalzle
University of Washington
4000 15th Ave NE
Seattle, WA 98195
206-685-7563
gschmalz@uw.edu

Brandon Schmandt
University of Oregon
1272 University of Oregon
Eugene, OR 97403
541-346-4573
bschmand@uoregon.edu

Nick Schmerr
Carnegie Institution of
Washington
5241 Broad Branch Rd. NW
Washington, DC 20015
202-478-8841
nschmerr@dtm.ciw.edu

Vera Schulte-Pelkum
University of Colorado
2200 Colorado Ave UCB 399
Boulder, CO 80309
303-919-0746
vera.schulte-pelkum@colorado.edu

Adam Schultz

Oregon State University
104 COAS Admin Bldg
Oregon State University
Corvallis, OR 97331
541-737-9832
adam@coas.oregonstate.edu

Derek Schutt

Colorado State University
Campus Delivery 1482
Fort Collins, CO 80523
970-491-5786
Derek.Schutt@Colostate.edu

Martin Schwed

Trinity University
Trinity Place #2297
San Antonio, TX 78212
513-280-0660
mschwed@trinity.edu

Anne Sheehan

University of Colorado of
Boulder
UCB 399 Benson Earth Sciences Bldg
Boulder, CO 80309
303-492-4597
Anne.Sheehan@colorado.edu

Weisen Shen

University of Colorado at Boulder
Department of Physics
University of Colorado at Boulder
Boulder, CO 80309
303-735-1850
weisen.shen@colorado.edu

Ashley Shuler

Lamont-Doherty Earth
Observatory
Columbia University
61 Route 9W
Palisades, NY 10964
845-365-8435
ashuler@ldeo.columbia.edu

David Simpson

IRIS Consortium - HQ
1200 New York Ave, NW
Suite 800
Washington, DC 20005
202-682-2220
simpson@iris.edu

Stefany Sit

Miami University of Ohio
114 Shideler Hall
Oxford, OH 45056
847-772-7334
stefany.m.sit@gmail.com

Robert B. Smith

University of Utah
Frederick A. Sutton Bldg.
115 S 1460 E. Room 243
Salt Lake City, UT 84112-0111
801-581-7129
robert.b.smith@utah.edu

Cathy Snelson

New Mexico Tech
801 Leroy Place
Socorro, NM 87801
575-835-6661
snelson@ees.nmt.edu

Emily So

US Geological Survey
1711 Illinois Street
Golden, CO 80401
303-273-8618
eso@usgs.gov

Teh-Ru Alex Song

IFREE JAMSTEC
Honmachi 6-57
Yokohama, Japan
236-0007
+ 81.3.5841.5748
asong@jamstec.go.jp

Xiaodong Song

University of Illinois
1301 W Green St 253NHB
Urbana, IL 61801
217-333-1841
xsong@illinois.edu

Marv Speece

Montana Tech
1300 West Park Street
Butte, MT 59701
406-496-4188
mspeece@mtech.edu

Neil Spriggs

Nanometrics Inc.
250 Herzberg Road
Kanata, Ontario
Canada K2K 2A1
613-592-6776
CanadaNeil@nanometrics.ca

Don Steeples

University of Kansas
250 Strong Hall
Lawrence, KS 66045
785-864-9904
don@ku.edu

Ralph Stephen

Woods Hole Oceanographic
Institution
360 Woods Hole Road
(MS#24)
Woods Hole, MA 02543
508-289-2583
rstephen@whoi.edu

Tyler Storm

Albuquerque Seismological Lab
10002 Isleta Road SE KAFB
Albuquerque, NM 87117
505-853-6255
tstorm@usgs.gov

Brian Stump

Southern Methodist University
Room 260
Heroy Building
3225 Daniels Street
Dallas, TX 75275
214-768-1223
bstump@smu.edu

Danielle Sumy

Lamont-Doherty Earth
Observatory
Columbia University
61 Route 9W, 116 Seismology
Palisades, NY 10964
845-365-8435
danielle@ldeo.columbia.edu

Daoyuan Sun

Carnegie Institution of
Washington
5241 Broad Branch Road NW
Washington, DC 20015
202-478-8837
dsun@dtm.ciw.edu

Justin Sweet

University of Washington
4132 3rd Ave NW Apt 3
Seattle, WA 98107
206-245-9213
jrsweet@uw.edu

John Taber

IRIS Consortium - E&O
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
taber@iris.edu

Nozomu Takeuchi

Earthquake Research Institute
University of Tokyo
Yayoi 1-1-1 Bunkyo-ku
Tokyo, Japan
113-0032
+ 81.3.5841.5748
takeuchi@eri.u-tokyo.ac.jp

Mary Templeton

IRIS Consortium - DMS
100 East Road
Socorro, NM 87801
575-835-5073
met@iris.washington.edu

Michael Thorne

University of Utah
115 S 1460 E. Room 383
Salt Lake City, UT 84112
801-513-9351
michael.thorne@utah.edu

Douglas Torbeck

University of Illinois
1301 W Green Street
Urbana, IL 61801
217-714-6822
dtorbec2@illinois.edu

Chad Trabant

IRIS Consortium - DMS
1408 NE 45th Street
Seattle, WA 98105
206-547-0393
chad@iris.washington.edu

Frank Vernon

University of California San Diego
IGPP SIO UCSD
La Jolla, CA 92093
858-534-5537
flvernon@ucsd.edu

John Vidale

University of Washington
Department of Earth and
Space Sciences
University of Washington
Johnson Hall Rm-070
Box 351310
4000 15th Avenue NE
Seattle, WA 98195
310-210-2131
vidale@uw.edu

Greg Waite

Michigan Tech
1400 Townsend Drive
Houghton, MI 49931
906-487-3371
gpwaite@mtu.edu

Bill Walter

Lawrence Livermore National
Laboratory
7000 East Avenue
Livermore, CA 94549
925-423-8777
bwalter@llnl.gov

Kai Wang

Virginia Tech
4044 Derring Hall
Blacksburg, VA 24061
540-577-0860
wkai83@vt.edu

Yun Wang

Brown University
324 Brook Street
Providence, RI 02912
401-523-9556
yun_wang@brown.edu

Linda Warren

National Science Foundation
4201 Wilson Blvd., Room 785
Arlington, VA 22201
703-292-8722
lwarren@nsf.gov

Aaron Wech

University of Washington
Box 351310
Seattle, WA 98195
206-543-0570
wech@uw.edu

Dr. Dayanthie Weeraratne
California State University,
Northridge
18111 Nordhoff Street
MD: 8266
Northridge, CA 91330
818-677-2046
dayanthie.weeraratne@csun.edu

Bruce Weertman
IRIS-DMC
1408 NE 45th Street, Suite 201
Seattle, WA 98105
206-547-0393
bruce@iris.washington.edu

Shengji Wei
California Institute of
Technology
1200 E. California Blvd
Pasadena, CA 91125
626-395-3861
shjwei@gmail.com

Chester Weiss
Virginia Tech
4044 Derring Hall [0420]
Blacksburg, VA 24061
540-808-5665
cjweiss@vt.edu

John D. West
Arizona State University
3370 N. Hayden Rd #123-179
Scottsdale, AZ 85251
928-978-1825
john.d.west@asu.edu

Ray Willemann
IRIS Consortium - HQ
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
ray@iris.edu

Erin Wirth
Yale University
PO Box 208109
New Haven, CT 06520
631-219-6508
erin.wirth@yale.edu

Bob Woodward
IRIS Consortium - HQ
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
woodward@iris.edu

James Wookey
University of Bristol
Wills Building, Queens Road
Bristol BS8 1RJ, UK
+44 (0) 117-954-5425
j.wookey@bristol.ac.uk

Rob Woolley
IRIS Consortium - HQ
1200 New York Ave., NW
Suite 800
Washington, DC 20005
202-682-2220
woolley@iris.edu

Chunquan Wu
Georgia Institute of
Technology
311 Ferst Drive
Atlanta, GA 30332
404-825-5936
chunquanwu@gatech.edu

Michael Wyession
Washington University
Dept EPS Campus Box 1169
Washington University
St. Louis, MO 63130
314-935-5625
michael@wucore.wustl.edu

Hongfeng Yang
Saint Louis University
3642 Lindell Blvd
Saint Louis, MO 63144
314-977-3130
hyang4@slu.edu

Zhaohui Yang
University of Colorado at Boulder
1350 20th St. Apt. A61
Boulder, CO 80302
646-715-5554
zhaohui.yang@colorado.edu

Christopher Young
Sandia National Lab
PO Box 5800, MS 0404
Albuquerque, NM 87185
505-844-8329
cjyoung@sandia.gov

Huaiyu Yuan
Berkeley Seismological Lab
215 McCone Hall
Berkeley, CA 94706
307-760-4732
huaiyu.yuan@berkeley.edu

Colin Zelt
Rice University
6100 Main Street
Houston, TX 77005
713-348-4757
czelt@rice.edu

Zhongwen Zhan
California Institute of
Technology
1200 E. California Blvd. MS 252-21
Pasadena, CA 91125
626-688-6977
zwzhan@gmail.com

Zhu Zhang
University of Wyoming
817 E Kearney St
Laramie, WY 82070
307-459-1368
zzhang7@uwyo.edu

Yuming Zhou

Saint Louis University

3642 Lindell Blvd

Saint Louis, MO 63108

314-757-2395

yumingzhou1984@gmail.com

Lupei Zhu

Saint Louis University

3642 Lindell Blvd

St Louis, MO 63108

314-977-3118

zhul@slu.edu

Notes



www.iris.edu