

Appendices



A1. List of funded projects in GeoPRISMS and MARGINS

Summary

	GeoPRISMS	MARGINS
Number of Funded Projects	37	134
Number of PIs	100	278
Early Career PIs	23	48
Female PIs	33	45
Percentage of Early Career PIs	23%	17%
Percentage of Female PIs	33%	16%
Percentage of Interdisciplinary Projects	27%	13%
Percentage of Collaborative Projects	49%	40%
Number of PIs per project	2.7	2.1

PIs	Award #	Proposal Title	Amount awarded to date	Initiative	Primary Site/Theme	# PIs	# ECI	# Fem	Inter-disc. Project	Collab. project
FY 2015 (GeoPRISMS)										
Nathan Bangs (postdoc: Shuoshuo Han)	1457221	Investigation of the hydrogeologic role of faults in the downgoing plate through comparison of Central America, Cascadia, Nankai, and Alaska subduction zones	\$256,975	SCD	CAM, Nankai, AA	2	1	1		
Peter Kelemen, Steve Goldstein, Yue Cai	1457293	Collaborative Research: Focused Study of Aleutian Plutons and their Host Rocks: Understanding the building blocks of	\$200,003	SCD	AA	3		1		1
Jeff Freymueller	1457361	Interseismic Slip Deficit at the Edge of a Locked Patch: Shumagin Islands, Alaska	\$238,803	SCD	AA	1				
Kerry Key	1456710	Collaborative Research: Magnetotelluric and Seismic Investigations of Arc Melt Generation, Deliver and Storage	\$409,057	SCD	AA	2	1		1	1
Ninfa Bennington	1456749		\$444,075				1	1		
Terry Plank	1456814	Collaborative Research: From the Slab to the Surface: Origin, Storage, Ascent and Eruption of Volatile-Bearing Magmas	\$106,055	SCD	AA	3		1	1	1
Diana Roman, Erik Hauri	1456939		\$76,474					1		
Eric Mittlestaedt (postdoc: Aurore Sybrandt)	1456664	Emplacement of regularly spaced volcanic centers in the East African Rift: Melt production or melt extraction?	\$120,596	RIE	EARS	2	1	1		
Ron Cole	1456630	Collaborative Research: Active kinematics of lithospheric extension along the East African Rift	\$107,250	RIE	EARS	1				1
FY 2014 (GeoPRISMS)										
Rebecca Bendick	1347192	Collaborative Research: Active kinematics of lithospheric extension along the East African Rift	\$47,814	RIE	EARS	2		1		1
Robert King	1347282		\$53,906							
Katie Keranen, Geoff Abers	1347262	Collaborative Research: The Aleutian megathrust from trench to base of the seismogenic zone; integration and synthesis of laboratory, geophysical and geological data	\$175,303			6	1	1	1	1
Donna Shillington, Anne Becel, Mladen Nedimovic	1347312		\$139,925	SCD	AK		1	2		
Demian Saffer	1347343		\$105,512							
Liz Cottrell	1347248	Collaborative Research: The role of oxygen fugacity in calc-alkaline differentiation and the creation of continental crust in the Aleutian arc.	\$114,469			3		1		1
Katie Kelley	1347330		\$62,808	SCD	AK			1		
Matt Jackson	1347377		\$8,783							
Chris Marone, Demian Saffer (postdoc: den Hartog)	1347344	Runaway Slip: Understanding Nucleation of Subducting Megathrust Earthquakes and Slow Slip Precursors	\$110,000	SCD		3	1			
FY 2013 (GeoPRISMS)										
Dave Chadwell	1249876	Constraining slip distribution of the Cascadia Subduction Zone Offshore Central Oregon with Seafloor Geodesy	\$421,567	SCD	CAS	1				
Taryn Lopez (postdoc)	1250148	Geochemical constraints on the source, flux, migration, and seismic signature of volcanic fluids, Katmai Volcanic Cluster, Alaska	\$309,907	SCD	AA	1	1	1		
Rob Harris	1249552	Thermal structure of the Cascadia subduction zone, Grays Canyon Discovery Corridor, Washington	\$39,188	SCD	CAS	1				
Peter van Keken	1249353	Collaborative Research: the role of fluids in intermediate-depth seismicity and wedge anisotropy: Case studies for Cascadia and Alaska, with a comparison to Japan	\$176,865			3			1	1
Brad Hacker	1249486		\$75,489	SCD	CAS, AA					
Geoff Abers old grant number:	1446970		\$129,472							
Elizabeth Johnson	1249438	Collaborative Research: Virginia's Volcanoes: a Window into Eastern North America Mantle Processes	\$81,485	RIE	ENAM	2	1	1		1
Esteban Gazel	1249412		\$271,612				1			
Bernard Hallet	1250130	Collaborative Proposal: Modeling Sediment Production from Glaciers off south-central Alaska during Quaternary Climate Oscillations	\$195,855	SCD	AA	3				1
Peter Koons, Sean Birkel	1249909		\$165,005				1			
P. van Keken	1339783	GeoPRISMS Office Support	\$777,368	ALL		1				
Harm van Avendonk, Gail	1348454	Collaborative Research: A community seismic experiment targeting the pre-, syn-, and post-rift evolution of the Mid Atlantic US margin	\$153,594			12		1	1	1
Matt Hornbach, Beatrice Magnani	1348124		\$344,452				2	1		
Steven Harder	1347024		\$205,951							
Maureen Long	1347310		\$27,349	RIE	ENAM			1	1	
Brandon Dugan	1348228		\$32,353							
Paul Wiita (for Maggie Benoit)	1348934		\$48,128						1	
Donna Shillington, Jim Gaherty,	1347498		\$233,089				1	2		
Dan Lizarralde	1348342		\$102,554							
Paul Wiita (for Maggie Benoit)	1251329	Collaborative Research: Mantle Dynamics, Lithospheric Structure, and Topographic Evolution of the Southeastern US Continental Margin	\$151,977			3		1	1	1
Scott King	1250988		\$126,756	RIE	ENAM					
Maureen Long	1251515		\$178,138				1	1		

PIs	Award #	Proposal Title	Amount awarded to date	Initiative	Primary Site/Theme	# PIs	# ECI	# Fem	Inter-disc. Project	Collab. project
FY 2012 (GeoPRISMS)										
Ken Creager, Olivier Bachmann, Heidi Houston, John Vidale	1144568	Collaborative Research: Illuminating the architecture of the greater Mt. St. Helens magmatic systems from slab to surface	\$923,868			8		1	1	1
Alan Levander	1144455		\$991,023	SCD	CAS					
Adam Schultz, Paul Bedrosian	1144353		\$386,221				1			
Geoff Abers	1444275		\$92,860							
Neal Blair	1144483	The Subduction Margin Carbon Cycle: A Preliminary Assessment of the Distribution Patterns of Multicycle Carbon	\$264,535	SCD	CAS, AA	1				
Emily Brodsky (Abijhit Ghosh, postdoc)	1144695	GeoPRISMS Postdoctoral Fellowship: Systematic search and characterization of very low frequency earthquakes and offshore tremor in Cascadia using the Amphibious Array	\$217,916	SCD	CAS	2	1	1		
Dave Chadwell	1144493	Potential contributions of Seafloor Geodesy to understanding slip behavior along the Cascadia Subduction Zone	\$67,243	SCD	CAS	1				
Brian Jicha, Brad Singer	1144494	Collaborative Research: A 21st Century Reconnaissance of Aleutian Arc Inception	\$197,814	SCD	AA	3				1
Suzanne Kay	1144499		\$102,173					1		
Paul Johnson, Evan Solomon	1144164	Thermal Structure of the Cascadia Subduction Zone on the Washington Margin	\$472,360	SCD	CAS	2			1	
Peter Kelemen, Steve Goldstein, Sydney Hemming	1144759	Collaborative Research: Plutons as ingredients for continental crust: Pilot study of the differences between intermediate plutons and lavas in the intra-oceanic Aleutian arc	\$99,105	SCD	AA	4		1		1
Matthew Rioux	1144648		\$35,046							
Adam Kent, Robert Duncan, Anita Grunder	1144555	The explosive volcanic history of the Central Oregon Cascades: Probing the changing state of the Neogene Cascade arc	\$360,078	SCD	CAS	3				
Peter Lonsdale, Marty Grove, David Kimbrough	1144558 1144392 1144367	Collaborative Research: Dating Submerged Continental Crust Beneath the Southern Gulf of California, and a Synthesis of the Magmatic and Tectonic History of This MARGINS Focus Site	\$63,109 \$82,408 \$83,802	RCL	GoC	3				1
Yang Shen (postdoc: Haijing Gao)	1144771	Developing a comprehensive model of subduction and continental accretion at Cascadia	\$206,576	SCD	CAS	2	1	1		
FY 2011 (GeoPRISMS)										
Matt Pritchard	1049611	Collaborative Research: Faulting Processes During Early Stage Rifting: Analysis of an Unusual Earthquake Sequence in Northern Malawi	\$11,602			4			1	1
Jim Gaherty, Scott Nooner, Donna Shillington	1049620		\$102,793	RIE	EARS			1		
Kyle Straub	1049387	Collaborative Research: Reconstructing ancient passive margin dynamics by relating geomorphic and stratigraphic surfaces: a combined laboratory and field study	\$192,729			2	1		1	1
Benjamin Sheets (left for industry)	1049582		\$0	RIE						
Greg Hirth	1049582	Experimental Constraints on the Rheology and Seismicity of Subducting Lithosphere and the Slab-Wedge Interface	\$363,600	SCD		2				
David Goldsby										
J. Morgan	1046795	GeoPRISMS Office Support – Building Beyond MARGINS	\$1,760,624	ALL		1		1		
Demian Saffer, Chris Marone (Hiroki Kitajima postdoc)	1049591	MARGINS Post-Doctoral Fellowship Research: Evolution of Sediment Physical Properties in the Nankai Subduction Zone and	\$165,864	SCD	Nankai	3	1	1		
Magali Billen (postdoc: Naliboff)	1049660	Postdoctoral Fellowship: 3D Numerical Models of the Dynamic Generation of Outer Rise Faults	\$179,947	SCD		2	1	1		
Ellen Syracuse	1049533	MARGINS: Seismic Evidence for Hydration of the Central American Slab: Guatemala Through Costa Rica	\$108,261	SCD	CAM	2	1	1		
Cliff Thurber										

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FY 2010 (MARGINS)										
Harold Tobin	0948292	Characterization of fault zone sediments from borehole logging data at the Nankai Trough (NanTroSEIZE Project)	\$167,826	SEIZE	Nankai	1	0			
Chuck Nittrouer	0948008	Collaborative Research: Synthesis of MARGINS Source-to-Sink	\$64,822	S2S	NZ, PNG	2	0			1
Steve Kuehl	0948106		\$45,177				0			
Becky Dorsey	0948170	Collaborative Research: Reconstructions of the Gulf of California-Salton Trough Plate Boundary Since 14 Ma: A Digital Synthesis of	\$48,344	RCL	GoC	3	0	1		1
Mike Oskin	0948169		\$47,004				0			
Paul Umhoefer	0948167		\$103,467				0			
Sergio Fagherazzi	0948213	MARGINS Post-Doctoral Fellowship: A synthesis model for the Fly	\$187,509	S2S	PNG	1	1			
Tara Kniskern	0948319	MARGINS Post-Doctoral Fellowship: Investigating sediment dynamics on the Waipaoa River shelf, New Zealand: creating a	\$228,641	S2S	NZ	1	1	1		
Don Forsythe	0947870	Collaborative Research: Enhanced 3-D tomography of the crust	\$106,085	RCL	GoC	2	0			1
Brian Savage	0948098		\$50,153			2	1			
Dan Lizarralde	0841063	Collaborative Research: Mantle Serpentinization and Water Cycling Through the Mariana Trench and Forearc	\$445,769	SF	IBM	2	0			1
Doug Wiens	0841074		\$413,112				0			
Axel Schmitt	0948162	MARGINS: Controls on Magma Generation at Incipient Spreading	\$24,863	RCL	GoC	1	0			
Jeff Marshall	0948312	Collaborative Research: Seismogenesis of the Middle America Trench at the Nicoya Peninsula over multiple seismic cycles	\$90,156	SEIZE	CAM	2	0		1	1
James Spotila	0948290		\$109,524				0			
FY 2009 (MARGINS) (orange = ARRA)										
Neal Driscoll, Alistair Harding, Graham Kent	0927446	Marine Seismic Reflection and Refraction Study of the Salton Trough	\$903,928	RCL	GoC	3	0			
Steve Constable, Kerry Key	0841114	Collaborative Research: SERPENT: serpentinite, Extension and Regional Porosity Experiment across the Nicaraguan Trench	\$700,003	SF	CAM	4	1			1
Rob Evans, Dan Lizarralde	0840894		\$269,702				0			
Josh Roering	0841111	Sediment production via landsliding in the Waipaoa: Temporal and spatial variability using InSAR, LiDAR, air photos, and Be-10	\$326,175	S2S	NZ	1	0			
Katie Kelley	0841108	MARGINS: Collaborative Research: The Oxidation State of Mariana Arc Magmas and its Relationship to Subduction Volatile	\$265,204	SF	IBM	2	1	1		1
Liz Cottrell	0841006	and Mass Cycling					1	1		
John Walsh, David Corbett	0841092	Collaborative Research: Formation, Reworking and Accumulation of Sedimentary Deposits, Waipaoa River Shelf, New Zealand	\$384,874			4	0			1
Courtney Harris	0841049		\$164,023	S2S			0	1		
Andrea Ogston	0840887		\$339,081				0	1		
Tim Dixon	0841091	Collaborative Research: A Plate Boundary Observatory on the Nicoya Peninsula, Costa Rica	\$199,743	SEIZE	CAM	2	0			1
Susan Schwartz	0841061		\$247,171				0	1		
Marc Spiegelman	0841079	Collaborative Research: Advanced models of magma migration at convergent MARGINS	\$276,065	SF		2	0			1
Peter van Keken	0841075		\$56,164				0			
Sue Bilek	0840908	Collaborative Research: Defining locations and patch sizes for slow earthquake ruptures in subduction zones	\$110,334	SEIZE	IBM/CAM	3	0	1		1
Heather DeShon	0841022		\$83,376				1	1		
Bob Engdahl	0841044		\$24,449				0			
Heather DeShon	0841077	Imaging 3D Seismic Velocity and Attenuation Heterogeneity Along the Seismogenic Zone of Costa Rica and Nicaragua	\$132,513	SEIZE	CAM	1	1	1		
Raj Dasgupta	0841035	MARGINS: Collaborative Research: Melting of Carbonate-bearing Sediments in Subduction Zones	\$266,942	SF		2	1			1
Cornelia Class	0841051		\$54,229					1		
Jeremy Boyce, Craig Manning	0840983	MARGINS: Central American Magmatic Volatile Histories as Recorded by Apatite Phenocrysts	\$338,226	SF	CAM	2	1			
Emily Brodsky	0840977	MARGINS FELLOWSHIP: Fluidization of Very Thick Granular Layers in Ancient Thrust Faults (postdoc: Christie Rowe)	\$202,649	SEIZE		2	1	2		
Mark Reagan, David Peate, William McLelland	0840862	MARGINS: Mariana Forearc Geology and Early Arc Volcanism	\$153,613	SF	IBM	3	0			
Susanne Straub	0840848	MARGINS: The Sr-Nd-Pb-Hf Isotope Evolution of the Mariana Island Arc	\$232,546	SF	IBM	1	0	1		
Mark Behn, Alison Shaw	0840800	A Synthesis of the Physical State of the Mantle Wedge in Costa Rica-Nicaragua and Izu-Bonin-Mariana	\$166,739	SF	IBM/CAM	3	2	1	1	1

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Bob Stern	0840794	MARGINS: Collaborative Research: Synthesis and Integration of	\$193,000			5	0		1	1
Jim Gill	0840981	Magma-genetic Controls for Subduction Factory Focus Sites	\$69,000	SF	IBM		0			
Mark Feigenson, Mike Carr	0840574		\$69,001				0			
Peter van Keken	0840448		\$68,829				0			
FY 2008 (MARGINS)										
Jim Gill	0751600	Cenozoic crustal genesis in SW Pacific arcs and backarcs	\$345,035	SF	NZ	1	0			
Miguel Goni	0742526	Collaborative Research: Geomorphodynamic Modulation of	\$414,585			3	0			1
Bill Dietrich	0742210	Biogeochemical Fluxes and Basin Stratigraphy of the Fly River	\$30,001	S2S	PNG		0			
Anthony Aufdenkampe	0742478		\$81,006				1			
Kurt Roggensack	0742460	MARGINS: Collaborative Research: Origins of Local Variations in	\$75,771	SF	CAM	2	0			1
Jim Walker	0742458	Subduction-Related Fluids: Evidence from Olivine-Hosted Melt Inclusions from the Central American Subduction Zone	\$59,265				0			
Brad Hacker	0742451	Collaborative Research: Element Recycling from UHP	\$141,339	SF		2	0			1
Peter Kelemen	0742368	Metasediments: Evidence and Consequences	\$160,590				0			
Larry Peterson	0742288	Geochemical Core Logging of Gulf of Papua Sediments for Source-to-Sink Studies	\$118,718	S2S	PNG	1	0			
Karen Fischer	0742282	MARGINS: Collaborative Research: Modeling 3-D Wedge Flow with Complex Slab Geometries and Comparisons with Seismic Anisotropy	\$152,153	SF	CAM/IBM	2	0	1		1
Chris Kincaid	0742490		\$270,351				0			
John Hole	0742263	Collaborative Research: Seismic Imaging of New Transitional Crust in the Salton Trough Oblique Rift	\$932,235	RCL	GoC	2	0			1
Joann Stock	0742253		\$472,564				0	1		
Emily Brodsky	0742242	MARGINS FELLOWSHIP: The effect of frictional properties in subduction zones on earthquake triggerability	\$183,074	SF, SEIZE	CAM	1	1	1		
Mike Oskin	0739017	Collaborative Research: Testing the Role of Transtension in	\$333,902			2	0			1
Becky Dorsey	0738723	Continental Rupture: An Integrative Study of the Sonoran Margin and Tiburón Basin, Northern Gulf of California	\$199,751	RCL	GoC		0	1		
Brian Savage	0718418	MARGINS: Collaborative Research: 3-D Tomography of the Crust and Upper Mantle Beneath the Gulf Extensional Province and Baja California	\$64,576		GoC	2	1			1
Don Forsyth	0646668		\$106,157	RCL			0			
FY 2007 (MARGINS)										
Erik Hauri	0646869	Collaborative Research: MARGINS--The Relationship Between	\$50,510			2	0			1
Alison Shaw	0646694	Water, Trace Elements and Slab Dehydration Across the Mariana and Izu-Bonin Arcs	\$397,533	SF	IBM		1	1		
Erik Hauri	0646868	MARGINS: Collaborative Research: Experimental Investigation of	\$75,000	SF		2	0		1	1
Glenn Gaetani	0646765	Water Solubility in Arc Magmas at Upper Mantle Conditions	\$339,092				0			
Kevin Brown, Michael Tryon	0646811	Hydrologic Monitoring at the Nantroseize OOST Zone: A Pilot	\$145,916	SEIZE	Nankai	2	1			
Tobias Fischer	0642832	MARGINS: Constraining the Process of Volatile Transfer from the	\$75,095	SF	IBM	1	0			
Clark Alexander	0646771	Collaborative Research: Late Quaternary Framework of the	\$181,832			2	0			1
Steve Kuehl	0646760	Waipaoa Continental Margin: Quantifying Mass Fluxes and Event Stratigraphy for Integrated Source-to-Sink Studies	\$148,834	S2S	NZ		0			
Geoff Abers	0646768	Workshop to Integrate Subduction Factory and Seismogenic Zone Studies in Central America; Costa Rica - July 2007	\$136,953	SF, SEIZE	CAM	1	0			
Peter van Keken	0646757	Collaborative Research: 3D modeling of subduction in the Pacific	\$97,052			3	0		1	1
Karen Fischer	0646667		\$70,421	SF			0	1		
Geoff Abers	0646632		\$77,587				0			
Ben Holtzman	0646696	MARGINS Postdoctoral Fellowship: Deciphering the Role of Melt	\$210,846	RCL		1	1			
Thomas McCollom	0646643	Collaborative Research: Modeling the Chemistry, Origin, and Evolution of Subduction Zone Fluids Rising Beneath the Mariana Forearc	\$163,707	SF	IBM	2	0			1
Michael Mottl	0646630		\$159,400				0			
Peter Lonsdale	0646563	The submarine magmatic record of the transition from arc	\$392,444	RCL	GoC	1	0			
Elena Leithold/Neal Blair	0646159	Source to Sink Generation of Biogeochemical Stratigraphic Signals	\$499,997	S2S	NZ	2	0	1		
Tobias Fischer	0642832	MARGINS: Constraining the Process of Volatile Transfer from the	\$75,095	SF	CAM	1	0			
Zach Sharp/Tobias Fischer	0620160	SGER: Chlorine Isotopes as Tracers of Subduction Zone Fluids	\$82,163	SF	CAM	2	0			

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FY 2006 (MARGINS)										
Rick Hervig	0549082	MARGINS Post-doctoral fellowship - Jeremy Boyce: Exploring the Record of Magmatic Volatiles in a Volcanic Arc via H, C, F, S, and Cl in Apatite	\$207,970	SF	CAM	2	1			
Doug Wiens, James Conder	0549056	MARGINS: Dynamics of the Mariana Subduction Factory Determined From Seismic Observations and Geodynamic Modeling	\$201,579	SF	IBM	2	1		1	
Steve Goldstein, Susanne Straub	0549055	MARGINS: Cl Isotope Systematics of Neogene Izu Arc Volcanic Rocks	\$107,569	SF	IBM	2	0	1		
Terry Plank	0549051	Magmatic Water along the Central American Arc	\$157,299	SF	CAM	1	0	1		
Andrew Kurtz	0549037	A Source-to-Sink Study of Chemical Weathering in the Fly River	\$174,853	S2S	PNG	1	1			
J. Casey Moore	0549017	Where Have All the Earthquakes Gone?	\$208,463	SEIZE		1	0			
Neil Driscoll	0548931	Collaborative Research: Developing a Further Quantitative	\$114,008			3	0			1
John Milliman	0548882	Understanding of Clinoform Formation, Gulf of Papua	\$49,129	S2S	PNG		0			
Rudy Slingerland	0548387		\$56,161				0			
W. Roger Buck	0548877	Collaborative Research: The Influence of Magmatism on the	\$112,886			2	0			1
Mark Behn	0548672	Evolution of Continental Rifts	\$83,000	RCL			1			
James Cochran	0548812	Integration of the Industry 2-D and 3-D Multichannel Seismic Data With Underway Geophysical Data to Investigate the Structure of the Northern Red Sea	\$214,896	RCL	Red Sea	1	0			
Gregory Moore, Patrizia Pisani	0505789	Inputs to the Nankai Trough Seismogenic Zone: Effects of Large-scale Lateral Variations in Basement Topography and Sediment Thickness	\$187,796	SEIZE	Nankai	2	1	1		
Jeff McGuire	0548785	Examining Changes in Earthquake Triggering Behavior Across the Ocean-Continent Transition, Gulf of California	\$176,768	RCL	GoC	1	0			
Glenn Spinelli	0540908	MARGINS: Hydrothermal Circulation Within Subducting Ocean Crust: Implications for Subduction Zone Temperatures	\$105,300	SF	CAM	1	1			
Susan Schwartz	0506463	Collaborative Research: Seismic, Aseismic and Slow Transient	\$165,357			2	0	1		1
Tim Dixon	0506382	Deformation at the Costa Rica Seismogenic Zone	\$237,369	SEIZE	CAM		0			
Sergio Fagherazzi, Xiaolong Hu	0505987	Collaborative Research: Modeling Sediment Delivery and Related	\$69,330			2	1			1
Irene Overeem, Scott Peckham	0504465	Stratigraphy in a Tidal Dominated Delta: Fly River Papua, New Guinea	\$92,791	S2S	PNG		1	1		
Michael Carr, Mark Feigenson, Carl Swisher, Brent Turrin	0505924	Volcanic Growth Rates and Elemental Fluxes From Central America	\$40,000	SF	CAM	4	0			
Andy Nyblade, Arthur Rodgers, Eric Sandvol	0505812	Seismic Structure of the Crust and Upper Mantle in the Central and Northern Red Sea Focus Site	\$104,314	RCL	Red Sea	3	0			
Paul Umhoefer	0505348	Collaborative Research: Neotectonics across an active Oblique-Divergent Plate Margin, Southwestern Gulf of California	\$186,236	RCL	GoC	1	0			
John Swenson	0504719	MARGINS Source to Sink: Collaborative Research on Shoreline	\$154,212			3	1			1
Jesse McNinch, Courtney Harris	0504690	Progradation and Sediment Exchange Between the Coastal Plain and Inner Shelf, Waipaoa Sedimentary System	\$522,731	S2S	NZ		1	1		
FY 2005 (MARGINS)										
Steve Goldstein, Conny Class, Susanne Straub	0453515	Reconstructing Slab and Mantle Fluxes During the Eocene-Oligocene Evolution of the Izu-Bonin Volcanic Arc	\$219,383	SF	IBM	3	0	2		
Greg Moore	0451790	Collaborative Research: A 3-D Seismic Investigation of the Nankai	\$3,249,567			5	0		1	1
Demian Saffer	0451602	Trough Plate Boundary	\$156,572	SEIZE	Nankai		1			
Nathan Bangs, Sean Gulick	041790	System in the Kumano Basin	\$496,380				1			
Susan Schwartz	0440396	Distinguishing Tectonic Mechanisms of Extension and Forearc				3	0	1		1
Kirk McIntosh, Paul Mann	0440143	Translation near the Central American Volcanic Arc by High-Resolution Seismic Profiling in Lakes Nicaragua and Managua	\$288,850	SEIZE	CAM		0			
JP Walsh	0405785	Collaborative Research: Sediment Dynamics on the Actively	\$185,728			3	0			
Clark Alexander	0405726	Deforming Waipaoa Continental Slope: An Examination of a Dispersal System Sink		S2S	NZ		0			
Greg Hirth	0405709	Collaborative Research: Rheology of Altered Oceanic Lithosphere	\$291,583			2	0			1
Brian Evans	0405613		\$54,231	SEIZE			0			

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Jim Walker	0405666	MARGINS: Collaborative Research: Temporal and Spatial	\$79,335			2				1
Marc Hirschmann	0405656	Variations in Magma Generation and Slab Influence Across the Central	\$39,507	SF	CAM		0			
Steve Holbrook, Mike Cheadle	0405654	Collaborative Research: Seismic measurements of magma flux, arc composition, and lower-plate serpentinization in the Central American subduction factory	\$1,464,350			5	0			1
Dan Lizarralde	0405608		\$225,797							
Peter Kelemen	0405572, 0520378		\$87,766	SF	CAM		0			
Harm Van Avendonk	0405556		\$363,314				1			
Bob Stern	0405651	Mantle Inputs to the Subduction Factory: Assessing Scales of Spatial Variability along and across the IBM Convergent Margin	\$449,818	SF	IBM	1	0			
Alan Chave, Rob Evans	0405641	US and Japanese Collaborative Research: A Magnetotelluric (MT) Transect Across the Mariana Subduction Factory	\$1,070,111	SF	IBM	2	0			1
Steve Kuehl	0405524	Collaborative Research - Resolution of the Stratigraphic Record for a High Input, Collision-Margin Shelf Basin: The MARGINS Waipaoa Focus Area	\$341,197			2	0			1
Lincoln Pratson	0405515		\$214,292	S2S	NZ		0			
Robert Clayton, Jeroen Ritsema	0405437	The NARS-Baja Seismic Array: Continued Operations and Research	\$225,000	RCL	GoC	2	0			
Mark Reagan	0405262	MARGINS Post-doctoral Fellowship - Jennifer Garrison: Time-scales and mechanisms of differentiation of mafic parents to rhyodacite in Central America	\$163,017	SEIZE	CAM	2	0	1		
FY 2004 (MARGINS)										
Julie Morris, Doug Wiens	0325002	Support of the Margins Office at Washington	\$1,259,564	ALL		2	0	1		
Neil Driscoll, JP Walsh	0305779	Collaborative Research: Developing a Quantitative Understanding of Clinoform Formation, Gulf of Papua	\$178,842			4	0			1
Rudy Slingerland	0305699		\$193,884	S2S	PNG		0			
John Milliman	0305607		\$191,001				0			
Adam Kent	0305755	Melt Inclusions in Izu Arc Lavas: Examining	\$137,856	SF	IBM	1	1			
Daniel Stockli	0305731	Collaborative Research: Integrated Thermochronological & Structural Investigation of the Saudi Arabian Red Sea Rift	\$177,428			2	1			
Gomaa Omar	0305692	Margin: Implications for the Rupturing of Continental Lithosphere	\$172,526	RCL	Red Sea		0			
Andre Droxler, Gerald Dickens	0305688	Collaborative Research: Late Quaternary Siliciclastic and Carbonate Sediments and Sediment Fluxes on the Slopes and Basin floors of the Ashmore and Pandora Troughs, Gulf of PNG	\$359,696			5				1
Harry Roberts, Samuel Bentley	0305373		\$242,196	S2S	PNG		1			
Larry Peterson	0305250		\$233,429				0			
William Ryan, Dale Chayes, Suzanne Carbotte	0305614	Collaborative Research: MARGINS Focus Site Data Management	\$539,857	ALL		3	0	1		
Matt Fouch	0305564	Mantle Dynamics of the Izu-Bonin Subduction	\$135,052	SF	IBM	1	1			
Robert Reilinger	0305480	Geodetic Constraints on the Kinematics and Dynamics of Active Rifting of the Northern and Central Red Sea	\$486,203	RCL	Red Sea	1	0			
J. Gaherty	0305454	Collaborative Research: Upper-Mantle Structure beneath the Gulf of California	\$178,151				0			1
John Collins	0305140		\$136,020	RCL	GoC		0			
James Conder, Doug Wiens	0305292	A Numerical Investigation of the Relative Importance of Different Melting Mechanisms at Volcanic Arcs	\$95,133	SF		2	1			1
David Hilton	0305248	Collaborative Research: Constraining the Volatile and Slab Flux in the Izu-Bonin-Mariana MARGIN using Geothermal Fluids, Phenocrysts and Melt Inclusions	\$239,720			3	0			1
Tobi Fischer	0305218		\$149,227	SF	IBM		1			
Erik Hauri	0305052		\$303,225				0			
Derrill Kerrick	0305137	Quantification of Metamorphic Devolatilization in the Subduction Factory Focus Sites: Implications to Fluid Fluxes, Seismicity, and Volatile Recycling	\$164,010	SF		1	0			
Mike Underwood	0304946	MARGINS Postdoctoral Fellowship: The Role of Sediment Diagenesis and Dewatering on Fluid and Heat Flow, Costa Rica Margin	\$100,000	SEIZE	CAM	1	1			

PIs	Award #	Proposal Title	Amount awarded to date	Initiative	Primary Site/Theme	# PIs	# ECI	# Fem	Inter-disc. Project	Collab. project
FY 2003 (MARGINS)										
Demian Saffer	0241482	Collaborative Research: Seismic Velocity, Compaction, and Pore Pressure in Underthrust Sediments, Nankai Subduction Zone	\$124,833			3	1		1	1
Greg Moore	0241380		\$115,465	SEIZE	Nankai		0			
Harold Tobin	0241375		\$178,765				0			
Steve Kuehl	0240054	Margins Workshop On The Waipaoa Source-to-Sink Focus Area	\$142,571	S2S	NZ	1	0			
Garry Karner	0237131	NSF-MARGINS Seismogenic Zone Theoretical Earth Institute	\$99,987	SEIZE		1	0			
Tobias Fischer	0234544	Field Workshop on the Chemistry and Flux of Volcanic Volatiles: Nicaragua and Costa Rica	\$15,000	SF	CAM	1	1			
Garry Karner	0207315	MARGINS Workshop: Subduction Factory	\$93,251	ALL		1	0			
Kevin Brown	0203830	Hydrologic Controls on the Initial State of the Incoming Plate: Costa Rica	\$113,095	SEIZE	CAM	1	0			
Kevin Brown	0203799	Collaborative Research: Frictional and Mineralogical Properties of Sediments Entering Subduction Zones: Controls on Stress State and Earthquakes	\$150,456			2	0			1
Mike Underwood	0203260		\$106,025	SEIZE	CAM, Nankai		0			
J. Casey Moore	0203664	What Locks Subduction Thrusts?	\$179,148	SEIZE	Nankai	1	0			
Geoff Abers, Terry Plank	0203650	Collaborative Research: Imaging the Mantle in the Central American Subduction Factory	\$478,134			3	0	1	1	1
Karen Fischer	0203607		\$285,041	SF	CAM		0	1		
Peter Lonsdale, Pat Castillo	0203636	Indirect Study of Subducted Oceanic Lithosphere at the Central American Margin	\$192,166	SF, SEIZE	CAM	2	0		1	
Paul Umhoefer	0203616	Collaborative Research: The Four-Dimensional Pattern of Rifting in the Southern Gulf of California	\$46,231			2	0		1	1
Peter Lonsdale	0203348		\$188,750	RCL	GoC		0			
William Dietrich	0203577	Collaborative Research - Processes Controlling Depositional Signals of Environmental Change in the Fly River Sediment Dispersal system: Rates and Mechanisms of Floodplain Deposition	\$338,133			6	0			1
Charles Nittrouer, Andrea Ogston, Richard Sternberg	0203351		\$549,971	S2S	PNG		1	1		
Jeff Marr, Gary Parker	0203296		\$111,877							
Mike Carr, Carl Swisher, Mark Feigenson	0203388	Determination of Volcanic Flux Rates and Application to Understanding Regional Geochemical Trends and Element Mass Balances in Central America	\$180,063	SF	CAM	3	0			
FY 2002 (MARGINS)										
Greg Hirth, Peter Kelemen (Magali Billen postdoc)	0125919	Convection of the Mantle Wedge Above Subduction Zones	\$99,971	SF		3	1	1	1	
Steve Holbrook	0112152	Margins: Collaborative Research: Seismic and geologic study of Gulf of California rifting and magmatism	\$246,862			5	0		1	
Gary Axen	0112149		\$180,149				0			
Graham Kent	0112058		\$525,755	RCL	GoC		0			
Dan Lizarralde	0111983		\$504,921				1			
Paul Umhoefer	0111738		\$105,501				0			
Robert Clayton	0111650	MARGINS: NARS-Baja: A Five-Year Deployment of Broadband Seismic Instruments around the Gulf of California	\$156,070	RCL	GoC	1	0			
John Eiler	0112132	MARGINS: Oxygen Isotope Studies of the Central American Arc	\$151,315	SF	CAM	1	0			
Glenn Gaetani	0112013	Margins: Experimental Investigation of Hydrous Peridotite	\$229,745	SF		1	0			
James Syvitski	0111623	Margins: Community Sedimentary Model Science Plan for Sedimentology and Stratigraphy	\$50,000	S2S		1	0			
Peter van Keken	0111459	Margins: Workshop on Modeling of Subduction Zone Dynamics and Thermal Structure	\$20,735	SF, SEIZE		1	1			
Chris Kincaid	0105456	MARGINS: Laboratory Experiments on 3-D Circulation and Temperature Distribution in Subduction Zones	\$143,480	SF, SEIZE		1	0			
Garry Karner, James Cochran, Michael Steckler	0102179	MARGINS Education and Planning Workshop: Rupturing Continental Lithosphere at the Red Sea/Gulf of Suez	\$115,521	RCL	Red Sea	3	0			

PIs	Award #	Proposal Title	Amount awarded to date	Initiative	Primary Site/Theme	# PIs	# ECI	# Fem	Inter-disc. Project	Collab. project
FY 2001 (MARGINS)										
Michael Steckler, Garry Karner	0094425	Margins Workshop: Rupturing Continental Lithosphere at the Gulf of California/Salton Sea	\$59,825	RCL	GoC	2	0			
Eli Silver	0079714	Workshop to Integrate MARGINS Studies in Central America	\$59,700	SF, SEIZE	CAM	1	0			
Geoffrey Wheat	0002031	Collaborative Research: The Thermal State of	\$300,134			5	0		1	1
Rob Harris	0001944	20-25 Ma Lithosphere Subducting at	\$61,551				1			
Carol Stein	0001941	the Costa Rica Margin, Implications for Hydrogeology, Fluxes, and the	\$99,615	SF, SEIZE	CAM		0	1		
Andrew Fisher, Eli Silver	0001892	Seismogenic Zone	\$269,653				0			
G. Karner	0079660	NSF Margins Office Support	\$758,882	ALL	-	1	0			
John Hildebrand	0002878	US-Japan Collaborative Research: Multi-Scale Seismic Imaging of	\$328,520			7	0		1	1
Simon Klemperer	0001956	the Mariana Subduction Factory	\$437,437				0			
Doug Wiens, Gideon Smith	0001938		\$574,862	SF	IBM		1			
Brian Taylor, Gregory Moore, Patricia Fryer, Andrew Goodliffe	0001798		\$506,264				1	1		
Peter Clift	0002715	Collaborative Research: Mantle Inputs to the Subduction Factory:	\$24,677			4	0		1	1
Sherman Bloomer, Roger Nielsen	0001876	Assessing Scales of Spatial Variability Along and Across the IBM	\$213,505	SF	IBM		0			
Robert Stern	0001827	Convergent Margin	\$338,705				0			
Mark Reagan	0001902	Collaborative Research: Magma Generation and Tectonics in the	\$211,507			3	0			1
Rosemary Hickey-Vargas	0001826	Early Mariana Arc System Revisited	\$43,733	SF	IBM		0	1		
Barry Hanan	0001824		\$124,857				0			
Terry Plank	0001897	Collaborative Research: Volatiles (H ₂ O and CO ₂) in Mariana and	\$187,963			3	0	1		1
Tim Grove	0001821	Izu Arc Magmas	\$252,140	SF	IBM		0			
Edward Stolper	0001825		\$64,266				0			
Chris Marone	0001871	Laboratory Frictional Studies of Fault Gouge: A Test of Hypotheses for Controls on the Updip Limit of the Seismogenic Zone Along Subduction Thrusts	\$200,000	SEIZE		1	0			
Mike Underwood	0001768	Strike-Parallel Variations in Clay Mineralogy and Their Impact on the Cascadia Seismogenic Zone	\$69,767	SEIZE	CAS	1	0			
FY 2000 (MARGINS)										
Derrill Kerrick, David Egglar	9975231	Quantification of Metamorphic Decarbonation and CO ₂ Degassing in Subduction Zones: Implications to Fluid Fluxes, Volatile Recycling and the Global Carbon Cycle	\$308,010	SF		2	0			
Lui-Heung Chan	9905540	Lithium Isotope Compositions of Volcanic Arc Lavas: A Study of Processes and Fluxes in Subduction Zones	\$177,869	SF		1	0	1		
Brian Taylor	9905455	MARGINS Theoretical and Experimental Institute: Inside the Subduction Factory	\$115,137	SF		1	0			
Kevin Brown	9907201	Benthic Flux Meter Study Across the Costa Rica Margin	\$64,564	SF, SEIZE	CAM	1	0			
Susan Schwartz	9910609	Collaborative Research: Imaging the Seismogenic Zone with Geodesy and Seismology: Two Land Ocean Transects Across	\$385,957			4	0	1	1	1
LeRoy Dorman	9910350	Costa Rica and the Middle America Trench	\$410,788	SF, SEIZE	CAM		0			
Tim Dixon	9905469		\$362,563				0			
Eli Silver	9909859	Collaborative Research: Structure of the Nicaragua/Costa Rica	\$148,118			2	0			
Kirk McIntosh	9905355	Subduction Zone: A Framework for the Subduction Factory and Seismogenic Zone Initiatives	\$437,368	SF, SEIZE	CAM		0			
Charles Nittrouer	9908347	Source to Sink: MARGINS Science Plan for Sedimentology and Stratigraphy	\$70,000	S2S		1	0			
Patricia Fryer, Fernando Martinez	9907063	Subduction Factory Studies in the Southern Mariana Convergent Margin: Side-Scan, Geophysical and Petrologic Investigations	\$385,720	SF	IBM	2	0	1	1	
Brian Taylor	9905642	MARGINS Theoretical and Experimental Institute: Rheology and Deformation of the Lithosphere at Continental Margins	\$117,760	RCL		1	0			
Larry Ruff	9905503	Interaction between Earthquakes, Stress, Temperature, and Fluid Flow in the Seismogenic Zone	\$51,680	SEIZE		1	0			
Harold Tobin	9905477	Experimental Investigation of Decollement Zone Mechanics and Consolidation State, Barbados and Nankai Accretionary Prisms	\$77,148	SEIZE	Nankai	1	0			

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A5. List of MSC and GSOC Members

Current members are listed in blue

Name	Institution	Initiative(s)	Dates	Chair
Geoff Abers	Boston/LDEO/Cornell	SF/RCL	2003-2006	2006-2010
Ramon Arrowsmith	Arizona State	RCL	2009-2012	
Estella Atekwana	Oklahoma State	RIE	2014-	
Nathan Bangs	UTIG	SEIZE	2007-2010	
Mark Behn	WHOI	RCL/SF	2008-2010	
Maggie Benoit	College of New Jersey	RIE	2011-2013	
Sue Bilek	New Mexico Tech	SEIZE	2008-2010	
Mike Blum	Louisiana State	S2S	2005-2007	
Roger Buck	LDEO	RCL	2005-2007	
Fred Chester	Texas A&M	SEIZE	2000-2004	
Mike Coffin	Texas	RCL	1997-1999	
Sue DeBari	Western Washington	E&O/SF	2000-2001	
Bill Dietrich	UC Berkeley	S2S	1998-2001	
Tim Dixon	Miami	SEIZE	1998-2000	
Becky Dorsey	Oregon	RCL	2001-2004	
Neal Driscoll	Scripps	S2S	1997-2000	
Brandon Dugan	Rice	RIE	2014-	
Tom Dunne	UC Santa Barbara	S2S	2008-2009	
Cindy Ebinger	Rochester	RCL	2007-2010	
Rob Evans	WHOI	RIE, SCD	2011-2014	
Peter Flemings	Texas	RIE	2010-2013	
Jeff Freymueller	Alaska Fairbanks	SCD	2014-	
Jim Gill	UC Santa Cruz	SF	2007-2009	
Mike Gurnis	Caltech	SF	2008-2011	
Brad Hacker	UC Santa Barbara	SCD	2011-2014	
Liz Hajek	Penn State	RIE	2014-	
Rosemary Hickey-Vargas	Florida International	E&O	2009-2011	
Marc Hirschmann	Minnesota	SF	2000-2002	
Greg Hirth	WHOI/Brown	SEIZE/SF	2001-2003	
Steve Holbrook	Wyoming	SF/RCL	2007-2009	
John Jaeger	Florida	SCD/RIE	2010-2013	
Gary Karner	LDEO/Exxon	RCL	1998-2000	2001-2003

Name	Institution	Initiative(s)	Dates	Chair
Katie Kelley	Rhode Island	SF	2010-2012	
Kerry Key	Scripps/UC San Diego	SCD	2014-	
Simon Klemperer	Stanford	SF	1998-2001	
Dave Kohlstedt	Minnesota	SF	1997-2000	
Steve Kuehl	VIMS	S2S	2007-2009	
Scott Linneman	Western Washington	E&O	2002-2004	
Maureen Long	Yale	SCD/SF	2013-	
Anne Meltzer	Lehigh	SF/SEIZE	2001-2003	
John Milliman	VIMS	S2S	2002-2006	
Casey Moore	UC Santa Cruz	SEIZE	1997-1999	
Julia Morgan	Rice	SEIZE	2005-2007	2010-2013
Julie Morris	Wash U	SF	2003-2006	2003-2006
Chuck Nittrouer	Washington	S2S	1998-2001	
Mike Oskin	UC Davis	RCL	2010-2012	
Simon Peacock	Arizona State	SF	1999-2002	
Sarah Penniston-Dorland	Maryland	SCD	2014-	
Terry Plank	Kansas/Boston U.	SF	1998-2000	
Lincoln Pratson	Duke	S2S	2005-2007	
Matt Pritchard	Cornell	SCD	2010-2013	
Marc Reagan	Iowa	SF	2002-2006	
Don Reed	Cal St. San Jose	E&O/SEIZE	2004-2008	
Tyrone Rooney	Michigan State	RIE	2014-	
Jeff Ryan	South Florida	E&O/SF	2005-2008	
Demian Saffer	Penn State	SEIZE	2007-2010	
Dale Sawyer	Rice	RCL	1996-1999	1996-1999
Susan Schwartz	UC Santa Cruz	SCD	2011-2014	
Liz Screaton	Florida	SEIZE	2005-2007	
Donna Shillington	LDEO	SCD/RIE	2010-2013	
Tom Shipley	Texas	SEIZE	2000-2003	
Eli Silver	UC Santa Cruz	SEIZE	2000-2004	
Rudy Slingerland	Penn State	S2S	2002-2005	
Bob Stern	UT Dallas	SF	1997-1999	
Joann Stock	Caltech	RCL	1999-2002	
Danny Stockli	Kansas	RCL	2007-2009	
Ed Stolper	Caltech	SF	1997-1999	
Lori Summa	ExxonMobil	Industry	2010-2013	

Name	Institution	Initiative(s)	Dates	Chair
John Swenson	Minnesota Duluth	S2S	2008-2009	
Brian Taylor	Hawaii	RCL/SF	1998-2000	1998-2000
Uri ten Brink	USGS/WHOI	RCL	2004-2007	
Cliff Thurber	Wisconsin	SF/SEIZE	2010-2012	
Harold Tobin	Wisconsin	SCD/SEIZE	2013-	
Anne Trehu	Oregon State	SEIZE	2006-2007	
Paul Umhoefer	Northern Arizona	RCL	2004-2008	
Mike Underwood	Missouri	SEIZE	1998-2000	
Harm van Avendonk	UTIG	RIE/(SCD)	2014-	
Peter van Keken	Michigan	SF	2004-2008	2013-2016
Paul Wallace	Oregon	SCD	2014-	
Tony Watts	Oxford	SCD	2014-	
Doug Wiens	Wash U	SF	1998-2002	2006
Pat Wiberg	Virginia	S2S	2002-2004	
Gene Yogodzinski	South Carolina	SCD/SF	2013-	

A6. All awardees and runners up for best student presentation

2014



Oral Presentation Winner

Kristina Walowski - University of Oregon

Slab melting and magma generation beneath the southern Cascade Arc

Coauthors: Paul Wallace, Michael Clynne



Poster Presentation Winner

Andrew Parsons - University of Leeds

Microstructural analysis of the Greater Himalayan Sequence, Annapurna-Dhaulagiri Himalaya, central Nepal: Channel flow and orogen-parallel deformation

Coauthors: Richard J Phillips, GE Lloyd, MP Searle, RD Law



Honorable Mention

Yelebe Birhanu – University of Montana

GPS constraints on the spatial distribution of extension in the Ethiopian Highlands and Main Ethiopian Rift

Coauthors: Rebecca Bendick, Shimeles Fisseha, Elias Lewi, Robert Reilinger, Robert King, G. Kianji

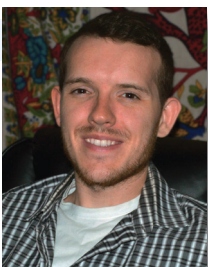


Honorable Mention

Lucile Bruhat – Stanford University

Inverting for shear stress rate on the Northern Cascadia megathrust using geodetic data

Coauthors: Paul Segall, Andrew Bradley



Honorable Mention

James Farrell – University of Connecticut

Brittle deformation within the eastern North American volcanic margin: Paleostress inversion of faults in the Hartford basin

Coauthors: Jean Crespi, Denali Ostebo, Megan Weingart



Honorable Mention

William Hutchison – University of Oxford

Integrating remote sensing, field studies and CO₂ surveys to unravel structural controls on fluid pathways at a young rift volcano

Coauthors: David M. Pyle, Tamsin A. Mather, Juliet Biggs, Gezahegn Yirgu



Oral Presentation Winner

Megan Newcombe – Caltech

Chemical zonation in olivine-hosted melt inclusions: A record of syn-eruptive cooling

Coauthors: Alessandro Fabbri, Youxue Zhang, Chi Ma, Marion Le Voyer, Yunbin Guan, John Eiler, Alberto Saal, Edward Stolper



Poster Presentation Winner

James Muirhead – University of Idaho

The evolving contribution of border faults and intra-rift faults in early-stage East African rifts: insights from the Natron (Tanzania) and Magadi (Kenya) basins

Coauthors: Simon Kattenhorn, Edwin Dindi, Remigius Gama



Honorable Mention

Suzanne Birner – Stanford University

Variations in oxygen fugacity among forearc peridotites from the Tonga trench

Coauthors: Jessica Warren, Elizabeth Cottrell, Oscar Lopez, Fred Davis, Trevor Falloon



Honorable Mention

Ryan Gallacher – National Oceanography Centre Southampton

Mantle structure beneath the Afar triple junction derived from surface wave tomography

Coauthors: Derek Keir, Nicholas Harmon, Graham Stuart, Sylvie Leroy, James Hammond, J-Michael Kendall, Atalay Ayele, Berhe Goitom, Ghebrebrhan Ogubazghi



Honorable Mention

Stephanie Grocke – Oregon State University

Storage conditions and temporal signals for the Tara supereruption magma; insights from geothermobarometry and quartz chemistry

Coauthors: Shanaka L. de Silva, Jan M. Lindsay, Rodrigo Iriarte, Elizabeth Cottrell, B. Andrews



Honorable Mention

Jiyao Li – Lamont-Doherty Earth Observatory

Constraints from seismic reflection signature on the seismogenic region in the Alaska/Aleutian subduction zone

Coauthors: Anne Bécel, Donna J. Shillington, M.R. Nedimovic, Harold. Kuehn, Spahr C. Webb



Oral Presentation Winner

Maryjo Brounce – University of Rhode Island

Fe³⁺/ΣFe variation in Mariana arc and back-arc magmas and primary fO₂ of the mantle wedge

Coauthors: Katherine A. Kelley, Elizabeth Cottrell



Poster Presentation Winner

Samer Naif – UC San Diego

An extensive melt layer beneath the oceanic lithosphere–asthenosphere boundary discovered by magnetotelluric data

Coauthors: Kerrey W. Key, Steven Constable, Robert L. Evans



Honorable Mention

Erin DiMaggio – Arizona State University

Late Pliocene – Early Pleistocene geologic history of Eastern Ledi–Geraru, Ethiopia: implications for the evolution of the southern Afar depression and hominid paleoenvironments

Coauthors: Ramon Arrowsmith, Christopher J. Campisano, Kaye Reed, Alan Deino

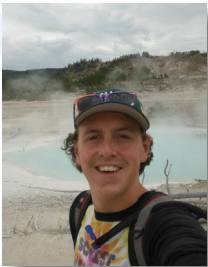


Honorable Mention

Kristina Walowski – University of Oregon

Understanding magma formation and mantle conditions in the Lssen segment of the Cascade Arc: Insights from volatile contents of olivine-hosted melt inclusions

Coauthors: Daniel J. Rasmussen, Paul J. Wallace, Michael A. Clynne

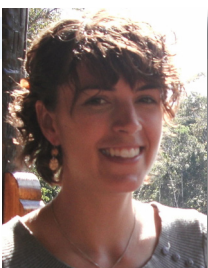


Honorable Mention

Brad Pitcher – Oregon State University

The evolution of the historic Mt. Etna magma plumbing system: A comprehensive in situ plagioclase compositional and isotopic study

Coauthors: Wendy Bohrson, Marco Viccaro



Honorable Mention

D. Sarah Stamps – Purdue University

Minimal role of basal shear tractions in driving Nubia–Somalia divergence across the East African Rift System

Coauthors: Eric Calais, Giampiero Iaffaldano, Lucy M. Flesch



Oral Presentation Winner

Christie Regalla – Penn State University

An alternative mechanism for forearc subsidence along the Northeast Japan erosive margin?

Coauthors: Donald Fisher, Kevin Furlong, Eric Kirby



Poster Presentation Winner

Manahloh Belachew – University of Rochester

Timing and dynamics of dike intrusions in Afar, Ethiopia: Faulting above dikes

Coauthors: Cindy Ebinger, Dustin Cote



Honorable Mention

Brett Carpenter – Penn State University

Mineralogical controls of fault healing in natural and simulated gouges with implications for fault zone processes and the seismic cycle

Coauthors: Matt Ikari, Chris Marone



Honorable Mention

Jamie Howarth – University of Otago

Reconstructing earthquake-driven erosion in the Southern Alps, New Zealand using the sedimentary record

Coauthors: Sean Fitzsimons, Richard Norris, Geraldine Jacobsen, Delia Strong



Honorable Mention

Jean-Arthur Olive – MIT

Evidence for trench-normal flow beneath the Western Hellenic slab from shear-wave splitting analysis

Coauthors: Stéphane Rondenay, Frederick Pearce



Honorable Mention

Gemma Smith – National Oceanography Center

Fault structure, properties and activity of the Makran Accretionary Prism and implications for seismogenic potential

Coauthors: Lisa McNeill, Timothy J Henstock, Jon Bull



Oral Presentation Winner

Linda Chernak – Brown University

Experimental deformation of dehydrating antigorite: Challenging models of dehydration embrittlement

Coauthor: Greg Hirth



Poster Presentation Winner

Kristin Morell – Penn State

Rock uplift and transient landscape development in response to subduction of the Cocos Ridge, Central American Volcanic Arc

Coauthors: Eric Kirby, Donald Fisher, Matthijs Van Soest



Honorable Mention

Maryjo Brounce – University of Rhode Island

Variations in Fe oxidation state at arc volcanoes driven by degassing and crystallization

Coauthors: Katherine Kelley, Elizabeth Cottrell



Honorable Mention

Nathaniel Miller – MIT/ Woods Hole Oceanographic Institute

Growth of sediment diapirs in subduction zones

Coauthors: Mark D. Behn



Honorable Mention

Erin Todd – UC Santa Cruz

The same variably enriched mantle wedge in the SW Pacific from arc birth to death

Coauthors: James B. Gill



Honorable Mention

Tamara Worzewski, IFM-GEOMAR

The cycle of hydration and fluid release in the Costa Rican subduction zone imaged through electromagnetic soundings: Where has all the water gone?

Coauthors: Marion Jegen, Heidrun Kopp, Heinrich Brasse, Waldo Taylor

A7. Agenda of the 2015 GSOC meeting



Final (03/12/2015)

GeoPRISMS Steering and Oversight Committee Agenda March 12-13, 2015 (Thu-Fri) NSF HQ, Room 730, Arlington VA

Expected Attendees

NSF: Jenn Wade, Donna Blackman, Carol Frost, Rick Murray, Dennis Geist, Steve Harlan

GSOC Members: Estella Atekwana, Jeff Freymueller, Kerry Key, Maureen Long, Sarah Penniston-Dorland, Harold Tobin, Harm van Avendonk, Paul Wallace, Tony Watts, Gene Yogodzinski

GeoPRISMS Office: Peter van Keken, Anaïs Férot, Jeanne Bisanz

Visitors: Andrew Goodwillie (Lamont)

GSOC members not attending in person: Brandon Dugan, Liz Hajek, Tyrone Rooney

Call-in guests: Susan Schwartz, Geoff Abers

Thursday, March 12

8:30 Breakfast

9:00 Welcome

van Keken

GeoPRISMS Office Update
Minutes from March 2014 GSOC Meeting

9:15 NSF Update, including

NSF

New Programs and New People
Funded Projects
Future Funding
GeoPRISMS Solicitation 2015

9:45 Welcome by Carol Frost (EAR division head)

10:00 Welcome by Rick Murray (OCE division head)

Discussion of impact of Decadal Survey of Ocean Sciences

10:30 Break

10:50 Initial discussion of impact of budget on the GeoPRISMS program

NSF, GSOC

Program scope
Planned TEIs
Office and community support

12:00 – 1:00 Lunch Provided

- 1:00 AGU & Workshop Summaries
GeoPRISMS-sponsored and -related sessions *Férot*
Hikurangi and South Island mini-workshops *Long, Tobin, Penniston-Dorland*
AGU 2015 - Session Proposals and Mini-Workshops *GSOC*
Session Deadline: April 22; Abstract Deadline in early August.
- 1:30 GeoPRISMS at Other Meetings – who, what, other activities?
Prague Goldschmidt 2015 *Penniston-Dorland*
ExTerra Field Institute *Penniston-Dorland*
SAGE/GAGE *Long, Freymueller*
OBSIP science meeting *van Avendonk*
GSA Annual Meeting *Freymueller*
- 2:00 Partner organizations update (part 1)
Earthscope *Long, NSF*
Amphibious Array Facility *van Avendonk, van Keken*
Subduction Zone Observatory *van Keken*
- 2:30 Planning for Theoretical and Experimental Institutes *van Keken*
- 3:00 Break**
- 3:30 SCD Initiatives Update *Freymueller, Key, Wallace, Yogodzinski*
- 5ish Adjourn for day**
- Dinner on your own**



Friday, March 13

8:30 Breakfast

9:00 RIE Initiative Updates *Atekwana, Long, van Avendonk, Watts*

10:00 GeoPRISMS Data Update *Goodwillie*
GeoPRISMS Data Portal Update
PI Data Management Plans

10:30 Break

11:00 Partner organizations update (part 2)
Amphibious Array Facility *Schwartz, Abers, van Keken*

11:30 Education & Outreach Update
MARGINS Mini-Lesson Project *Penniston-Dorland*
AGU Student Prize *Férot*
Role of GEAC and membership *Penniston-Dorland, van Keken*

12:00 Office activities
 Social media and website *Férot*
 Newsletter
 Distinguished Lectureship Program
Program update
Select speakers for next year *GSOC*

12:29 GSOC Rotations *GSOC*
No one rotating off until after Spring 2016!

12:30-1:45 Lunch on your own

1:45 Upcoming review

2:00 Discussion time (we'll have a break in the middle) *GSOC*
 Preparation for review
 Advice to NSF and GeoPRISMS Office on:
Scope of program and phased funding
TEIs
Role of office and community support

5:00 Meeting Adjourned

6:30 Group dinner at Kapnos Taverna (4000 Wilson Boulevard, across from Rustico)

A8. Response to questions by NSF to GSOC March 2015



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Drs. Jennifer Wade and Donna Blackman
National Science Foundation

Ann Arbor, March 21, 2015

Dear Jenn and Donna,

Thank you very much for your time and your kind hosting of our annual GeoPRISMS Steering and Oversight Committee (GSOC) meeting held at NSF on March 12 and 13. We had a very productive meeting and covered a lot of topics that included progress reports on GeoPRISMS funded research, activities of the Office and those at AGU, the connections with facilities and other research collaborations. Please extend our thanks and regards to Drs. Frost and Murray for their very constructive participation in our meeting. We will send you the full minutes of the meeting when we have finalized them.

An important part of our discussion focused on the written questions that you provided ahead of the meeting regarding the planned Theoretical and Experimental Institutes in the 2014-2016 period, the scope of the program, the program review, and the role of the GeoPRISMS Office. We thank you for the time and thought that went into the formulation of these discussion points. We are fully aware of the impact of tight and reducing budgets and understand that the full scope of the program laid out in the science and implementations plans may not be fully achieved. We appreciate your interest in our recommendations for how we could proceed to optimize the impact of the program.

We distributed your discussion points to the committee ahead of the meeting. The committee received written responses from the three committee members (Drs. Rooney, Hajek and Dugan) who could not attend the meeting in person. Drs. Hajek and Dugan participated in part or all of the discussions by phone.

I will describe the outcome of our deliberations and recommendations to you in the order with which we discussed these topics. I will provide a short discussion of the

Program Review

The committee is preparing for the upcoming mid-term review and is looking forward to the charge that will be sent to the committee to help us start preparing the review materials.

Theoretical and Experimental Institutes (TEI) planned in 2014-2016.

The proposed Office budget submitted for the 2014-2016 Office period included funds for two ‘all-hands-on-deck’ meetings for the SCD and RIE initiatives. Due to the sequester the budget lines for these meetings were significantly reduced (to \$150k total) and we have been in negotiations with you whether we could augment these funds, should maximize efficiency by scheduling a TEI together with other meetings, or have to modify the original plan to accommodate the reduced budgets. The combination of the SCD TEI with the Subduction Zone Observatory (SZO) logistics meeting that was proposed in January by Bob Detrick (IRIS), Meghan Miller (UNAVCO), Anne Meltzer (IRIS Board of Directors) and myself was found to be too premature and too costly and we were asked to consider the role of the TEIs under the assumption that no additional funds would be available.

The GSOC discussed three options: 1) hold two TEIs with much reduced scope and smaller attendance for both the SCD and RIE initiatives; 2) consider combining the SZO meeting and SCD TEI at a later stage and organize a smaller RIE TEI; 3) combine the funds to hold the SCD TEI as originally planned and have the next Office (2017-2019) organize the RIE TEI.

Some of the GSOC members recalled favorably the more focused TEIs held at the end of MARGINS, but also noted that these were held together with other TEIs. Since we only can host a single TEI per initiative under option 1 we felt this would exclude a significant number of researchers interested in the broader SCD and RIE goals. Option 2 was received with more enthusiasm. We anticipate that a significant number of researchers interest in SCD would also apply to attend the SZO meeting leading to some cost savings. We did not reach a strong consensus in favor of this option however, as the cost and the length of the meeting were cited as major concerns. The cost of the combined meeting would still exceed the available funds (taking into account the budget estimate provided by NSF for a separate SZO meeting). The committee expressed the strong desire to make sure any meeting is done right and that delaying one TEI to make sure the other has a large impact was more important than trying to do both with limited budget. As such there was strong consensus in favor of option 3. The committee recommends to hold a single SCD TEI with the budget currently available to the GeoPRISMS Office with the recommendation that the next GeoPRISMS Office organizes a comparable TEI for the RIE initiative.

Role of the Office

The question was put before us to consider whether it was beneficial to continue the Office to guide GeoPRISMS activities. The cost of the Office (\$1.2M for 3 years on a current budget of \$3.5M per year) creates an effective 11% overhead. We discussed the main budget items of the Office in comparison to the cost of the Rice Office, which had a larger budget principally due to organization of a significant number of planning meetings and a larger indirect cost rate. The committee concluded that it would be hard to find internal cost savings that can significantly reduce the current Office budget. As a consequence it considered the possibility of terminating the Office as part of the GeoPRISMS program to provide more funds for funding of science projects.

The committee concluded unanimously that the Office is essential for the program. The strong and effective community building (as displayed for example by the nearly 1,000 unique individuals who have attended GeoPRISMS meetings) was seen as essential to keep GeoPRISMS a vibrant and growing program. The Distinguished Lecturer Program (DLP), which is designed to maximize outreach opportunities at institutions with limited access to scientific speakers has furthermore reach an estimated 9,000 people. The Office activities provide several mechanisms to reach new members of the geosciences community through the DLP, student symposia at meetings, and the AGU Townhall and Student Forum. These activities similarly allow students and junior scientists to be part of a vibrant and growing community. The use of the Office and its activities as a focal point of the program is seen as fundamental to the GeoPRISMS goals of achieving an active community with a strong interdisciplinary and amphibious approach. While the relative cost appears high when measured to just GeoPRISMS-funded science, it is clear that GeoPRISMS reaches a much larger audience than just those funded by GeoPRISMS and that many research activities funded by NSF outside of GeoPRISMS benefit from the Office activities. The true relative cost of the Office is therefore seen as significantly less than 11%. The committee unanimously recommended that the Office remains an integral part of the GeoPRISMS effort.

Program Scope

The committee recognized the importance of discussing the program scope within the limited budget availability. The science plans that were drawn up with two main initiatives and five focus sites could be seen as ambitious within the reality of funding well below the amount that had been anticipated.

The committee first discussed whether the program scope could be reduced by the removal of any focus site. A strong consensus emerged that this is not possible due to the way the NSF-approved science plans have been developed and the significant investment of time and effort by the community to establish implementation plans for the focus sites. Each focus site is connected to the other sites in the science plans and the removal of one site would effectively render the science plan of that initiative along with implementation plans of the related focus sites invalid. The need for colocation with other efforts (such as

EarthScope) and the phased funding for large projects have further complicated this. It was noted that the timing of initiatives in SCD (Cascadia first, followed by Alaska-Aleutians and New Zealand) did not strictly follow the scientific priorities laid out by the community (which selected the focus sites in order of priority: Alaska-Aleutians, Cascadia, New Zealand as described in the GeoPRISMS Implementation Plan). Similarly, the study of incipient rifting at EARS is highly complementary to the longer-term rift processes studied at ENAM. A termination of the EARS focus site would fatally weaken the science plans developed for RIE.

The committee was asked to take into account the low success rate of the proposals that were submitted in the first year of funding available for large projects in the EARS focus site. The committee is concerned about the possible reasons for this and is eager to work with the EARS community to find ways to improve this success rate. Nevertheless, the committee feels that it is fair to the entire community to let the proposal process decide whether projects are feasible or not, rather than trying to anticipate the outcome of future funding rounds and exclude the EARS community from the outset.

The committee discussed the impact of the phased funding model as a whole and the shared logistical support specifically for the Aleutians. These clearly have had a positive impact: the phased funding with limited time periods allows for a fairer distribution of financial resources among the focus sites and the logistical support allows PIs of multiple projects to participate in shared resources. However, the committee also noted that the phased funding has had some negative impact by not always providing an optimal time window for certain projects that required expensive ship time or for projects that could not benefit directly from the logistical resources that were provided for the Aleutians.

The committee recognizes the fundamental importance of the science objectives at all focus sites and feels strongly that as much as possible should be done to facilitate the community efforts at all sites. The committee accepts the fact that the budgetary pressures may limit the overall impact of the program and that this is an anticipated outcome of doing difficult amphibious and interdisciplinary science under significant budget pressures. The committee strongly recommends that the impact of reduced funding should be borne by the entire program and not by a single focus site.

The committee discussed possible ways to reduce the impact of the delay of logistical support for the Aleutians and the poor initial round of reviews for EARS proposals. It was suggested that the EARS community might benefit from a RIE-focused workshop at AGU to discuss further community efforts and to put the EARS effort in perspective with that at ENAM. Such a workshop could be organized with modest additional funds to the Office but would logically require postponement of the second year of phased funding to EARS by one year. The NSF efforts to provide logistical support for projects in the Aleutians is generally seen as very positive, but the delay in this support effectively made this only available for the second year of phased funding. The committee felt it would be worthwhile to allow another year of proposals for large scale experiments at the Alaska-Aleutian focus site. Since the second year for big project submissions for the last focus site (New Zealand) is in FY17 and the decadal program ends in FY20 the committee feels

there is flexibility for an extension of the very difficult Alaska-Aleutian field site and for a delay in the second year for EARS. The original and modified phase funding model would then look as follows:

Original schedule

FY14	FY15	FY16	FY17	FY18
AA	AA			
	EARS	EARS		
		NZ	NZ	

Modified schedule

FY14	FY15	FY16	FY17	FY18
(AA)	AA	AA		
	EARS		EARS	
		NZ	NZ	

Summary statement

The GSOC is thankful for the thoughtful comments and questions that were raised and for the opportunity to provide feedback. The committee unanimously considers the Office an essential and integral component of GeoPRISMS. The committee recommends that the current Office organizes a SCD-focused TEI in 2015 using the currently available meeting funds and that the next Office is charged with the organization of the RIE TEI. The committee shares the concerns regarding the scope of the program within the budget realities but recommends that this is resolved through normal proposal competition rather than by explicitly adjusting the scope of the program by, for example, the removal of a focus site. Given delays in the logistics support and difficulty of field work in the Alaska-Aleutian site we recommend that this focus site is allowed for one more round of competition. To accommodate this we recommend that the second year of large project submissions to the EARS focus site is delayed by one year.

Kind regards,

Peter van Keken,
on behalf of the GeoPRISMS Steering Committee: Drs. Estella Atekwana, Brandon Dugan, Jeffrey Freymueller, Liz Hajek, Kerry Key, Maureen Long, Sarah Penniston-Dorland, Tyrone Rooney, Harold Tobin, Harm van Avendonk, Paul Wallace, Anthony Watts, Gene Yogodzinski.

Cc: Dr. Bilal Haq

A9. MARGINS and GeoPRISMS DLP Speakers

Year	Speaker	Initiative(s)	Lecture Titles
2015-2016	Laura Wallace	SCD	<p>Public Lecture: The slow slip revolution: Leading to a better understanding of earthquakes</p> <p>Technical Lecture: Sticky or Slippery? Controls on subduction megathrust behavior at the Hikurangi subduction margin, New Zealand</p>
2015-2016	Beatrice Magnani	RIE	<p>Public lecture: The legacy of ancient plate boundaries in continental intraplate deformation</p> <p>Technical lecture: From plate boundary to intraplate: understanding the role of paleotectonic structures in continental intraplate deformation</p>
2014-2015 2015-2016	Elizabeth Cottrell	SCD	<p>Public Lecture: Volcanoes: Windows to the Deep</p> <p>Technical Lecture: Oxygen Cycling Through Subduction Zones and The Generation of Continents</p> <p>Schools visited: The Community College of Baltimore County, Drexel University, IMax Theater, Challenger Learning Center of Tallahassee, Fl, Florida State University, University of Vermont</p>
2014-2015 2015-2016	Bradley Hacker	SCD	<p>Public Lecture: Earth's Tempo: The Bleeding Edge of Geochronology</p> <p>Technical Lecture: Differentiation of the Continental Crust by Relamination</p> <p>Schools visited: UMASS Amherst, University of Connecticut, University of Wisconsin Oshkosh, University of New Hampshire</p>
2014-2015 2015-2016	Andy Nyblade	RIE	<p>Public lecture: The Formation of the Great Rift Valley in East Africa: Is there a Connection with Human Origins?</p> <p>Technical lecture: Cenozoic Rifting, Plateau Uplift, and Volcanism in Eastern Africa and the African Superplume</p> <p>Schools visited: University of California San Diego, Scripps Institution, Utah Valley University, Southern Methodist University</p>
2014-2015 2015-2016	Robert Stern	SCD	<p>Public Lecture: Geoscientific Investigations of the Southern Mariana Trench and the Challenger Deep</p> <p>Technical Lecture: Subduction Zones, the Subduction Factory, and three MARGINS Mini-Lessons Designed for Undergraduates</p> <p>Schools visited: Kansas State University, University of Iowa (Nov 2015), Dickinson State University</p>

Year	Speaker	Initiative(s)	Lecture Titles
2014-2015	Richard Allen	SCD	<p>Public Lecture: When Plates Collide: Imaging the roots of Cascadia's volcanoes</p> <p>Technical Lecture: The Cascadia Enigma: Probing the structure of a silent subduction zone</p> <p>Schools visited: University of Oregon, California State University, Chico, University of Wisconsin – River Falls, University of Maine</p>
2013-2014 2014-2015	Josh Roering	SCD	<p>Public Lecture: Are mountains like giant sandpiles?: How landslides, earthquakes, and big floods shape steep terrain and control sediment dispersal</p> <p>Technical Lecture: Limits to life's role in landscape evolution: Physical, chemical, and biological drivers of erosion along continental margins</p> <p>Schools visited: Rutgers University, New Brunswick (postponed), Colorado State University, University of California, Berkeley, Wesleyan University, Kent State University, Queens College, LDEO, Columbia University, Lawrence University</p>
2013-2014 2014-2015	Rebecca Bendick	RIE	<p>Public Lecture: How continents challenge the theory of plate tectonics</p> <p>Technical Lecture: Tectonic deformation in continents: combining geophysical data and numerical simulations for constraints, bounds, and (limited) insights</p> <p>Schools visited: Michigan State University, Wayne State University, University of Southern California, Portland State University, Saint Louis University, Austin Peay State University, Colorado School of Mines, University of Arkansas</p>
2013-2014 2014-2015	Kyle Straub	RIE	<p>Public Lecture: Stratigraphy: A flawed record of Earth's history, but the best one we have</p> <p>Technical Lecture: Process controls on stratigraphic completeness and basin filling sedimentation patterns along passive margins</p> <p>Schools visited: University of Nevada, Reno, University of California, Riverside, University of Oklahoma, University of St. Thomas, University of Delaware, Cincinnati Museum Center, University of Cincinnati, University of Texas Pan American</p>
2013-2014	Jeff McGuire	SCD	<p>Public Lecture: Earthquakes and strain release in the Cascadia subduction zone: What have we learned?</p> <p>Technical Lecture: 20,000 foreshocks under the sea: Studying complete seismic cycles on East Pacific Rise transform faults</p> <p>Schools visited: University of Wisconsin, Madison, Carleton College, McGill University, Appalachian State University</p>

Year	Speaker	Initiative(s)	Lecture Titles
2012-2013 2013-2014	Heather Deshon	SCD	<p>Public Lecture: Great earthquakes and new insights into subduction seismogenesis</p> <p>Technical Lecture: Using seismic topography to image subduction systems: Applications to Costa-Rica, Nicaragua and Sumatra</p> <p>Schools visited: New Mexico Institute of Mining and Technology, Trinity University, Midwestern State University, Humboldt State University, University of Alabama, Georgia Southwestern State University, Central Washington University, University of Washington</p>
2012-2013 2013-2014	Craig Manning	SCD	<p>Public Lecture: Going Deep: New Insights into Subduction Zone Fluids</p> <p>Technical Lecture: What's so Super about Supercritical Fluids?</p> <p>Schools visited: Colorado College, Case Western Reserve University, Ohio State University, Miami University of Ohio, Lafayette College, Indiana University, SUNY Oswego, Pennsylvania State University</p>
2012-2013 2013-2014	Tyrone Rooney	RIE	<p>Public Lecture: Continental Rifting and its role in shaping of the world we live in today</p> <p>Technical Lecture: From initiation to termination – the critical role of magma in rift evolution</p> <p>Schools visited: Michigan Technological University, City College of New York, University of Idaho, University of Florida, Syracuse University, New Mexico State University, Oklahoma State University, University of Alaska Fairbanks</p>
2012-2013 2013-2014	Chris Scholz	RIE	<p>Public Lecture: Climate Change and Human Origins: New Discoveries through Scientific Drilling in East Africa's Great Rift Valley</p> <p>Technical Lecture: Comparative Sedimentary Architecture of Magmatic versus Amagmatic Continental Rifts: Case Studies from East Africa</p> <p>Schools visited: Mercyhurst University, National Museum of Natural History, Smithsonian Institution, Ohio University, Rider University, College of Charleston, Emory University, Florida Atlantic University, University of South Carolina</p>
2012-2013	Magali Billen	SCD	<p>Public Lecture: Going down fighting: Deformation and Destruction of Sinking Tectonic Plates</p> <p>Technical Lecture: From the Outer Rise to the Transition zone: Observations and models of Plate and Mantle Deformation During Subduction</p> <p>Schools visited: Oregon State University, University of South Dakota, University of Minnesota, University of Kentucky</p>

Year	Speaker	Initiative(s)	Lecture Titles
2011-2012 2012-2013	Harm van Avendonk	RIE	Public Lecture: The Life Cycle of Rifted Margins. Technical Lecture: Extension of Continental Crust at the Eastern Grand Banks, Newfoundland. Schools Visited: Louisiana State University, California University of Pennsylvania, Carnegie Science Center – Pittsburgh, Northern Illinois University, University of Hawaii, University of Memphis, University of Massachusetts Amherst
2011-2012 2012-2013	Geoff Abers	SCD	Public Lecture: How Water Deep in the Earth Controls Earthquakes and Volcanoes. Technical Lecture: Imaging with Geophysics: The Heat and Water Cycling in Modern Subduction Zones. Schools Visited: Fort Hays State University, Northwest Missouri State University, University of Arizona, University of Colorado, Boulder, The University of Tulsa, California State University Northridge, University of California, Santa Cruz, US Geological Survey, Menlo
2011-2012 2012-2013	Katie Keranen	RIE	Public Lecture: Controls on Continental Breakup: Understanding Active Processes Along the East. Technical Lecture: Extension Beyond the Rift Boundaries: Magmatism, Heat, and Depth-Dependent Deformation in Ethiopia. Schools Visited: Carleton College, University of Northern Iowa, Idaho State University, University of Nevada Las Vegas, University of Texas at Arlington, California State University Fresno
2011-2012	John Swenson	S2S	Public Lecture: Holocene Evolution of the Waipaoa Fluvio-Deltaic System: A Source-To-Sink. Technical Lecture: Predictive Models for Avulsion Frequency and Lobe Dimensions on Wave-Influenced Deltas. Schools Visited: Indiana University of Pennsylvania
2011-2012	Steve Holbrook	SCD	Public Lecture: Arcs, Continents, and the Andesite Paradox. Technical Lecture: The Subduction Sponge: Mantle Serpentinization in the Downgoing Plate. Schools Visited: Marshall University, Texas Tech University, Utah State University, Virginia Tech
2011-2012	Alison Shaw	SCD	Public Lecture: Subduction and the Earth's Deep Carbon Cycle. Technical Lecture: The Chemical Consequences of Slab Dehydration Across Subduction Zones. Schools Visited: Bryn Mawr, State University of New York, Stony Brook, Cornell University

Year	Speaker	Initiative(s)	Lecture Titles
2010-2011 2011-2012	Peter van Keken	SCD	<p>Public Lecture: When earth attacks: why an old planet causes volcanoes and earthquakes.</p> <p>Technical Lecture: Dynamics of subduction zones and the recycling of water to the deep Earth.</p> <p>Schools Visited: University of Texas at Dallas, Texas A & M, Galveston, University of South Florida, Rutgers University, UC Davis, Stanford University, Grand Valley State University, Rensselaer Polytechnic Institute</p>
2010-2011 2011-2012	Paul Umhoefer	RIE/ RCL	<p>Public Lecture: Lessons for understanding ancient mountain belts from the modern Gulf of California.</p> <p>Technical Lecture: How Plate Tectonics works in the southern Gulf of California: a rapid birth in a hot setting.</p> <p>Schools Visited: Oklahoma State, University of North Texas, University of Houston, University of the Pacific, California State University, Fullerton, Chapman College, UC Santa Barbara</p>
2010-2011	Emily Brodsky	SEIZE	<p>Public Lecture: Seismic Waves that Trigger Earthquakes.</p> <p>Technical Lecture: The interaction between fault zone structure and rheology.</p> <p>Schools Visited: New Mexico Tech, New Mexico State, Fort Lewis College, San Francisco State</p>
2009-2010 2010-2011	Chris Goldfinger	SEIZE	<p>Public Lecture: Great Submarine Earthquakes, the Riddle of the Sands.</p> <p>Technical Lecture: Earthquake Recurrence, Segmentation, and Stress Triggering on the Cascadia Margin.</p> <p>Schools Visited: Duke University, University of Maryland, University of Idaho, James Madison University, Central Washington University, U of Puget Sound, U of Washington</p>
2009-2010 2010-2011	Becky Dorsey	RCL/ RIE	<p>Public Lecture: The Secret Life of Basins: A Stratigraphic Record of the Southern San Andreas Fault.</p> <p>Technical Lecture: Crustal recycling along an oblique-divergent plate boundary: from the Colorado Plateau to the Salton Trough and Gulf of California.</p> <p>Schools Visited: Cal Poly Pomona, UCLA, CSU Fresno, UC Santa Cruz, University of New Mexico, University of Oklahoma, University of Wyoming</p>
2009-2010 2010-2011	Katherine Kelley	SCD/ SF	<p>Public Lecture: The volatile story of subduction zone volcanism.</p> <p>Technical Lecture: The role of water in mantle melting and mass transfer processes at subduction zones.</p> <p>Schools Visited: University of Buffalo, Syracuse University, Western Washington, Oregon State University, University of Iowa, University of Minnesota, University of Missouri</p>

Year	Speaker	Initiative(s)	Lecture Titles
2009-2010 2010-2011	Rudy Slingerland	S2S	<p>Public Lecture: How River Deltas Work: The Patterns and Dynamics of Distributive Fluvial Systems.</p> <p>Technical Lecture: Building a Continental Shelf One Grain at a Time.</p> <p>Schools Visited: Illinois State, Winona State, Michigan State, Georgia Southern University, Indiana University of PA, Tulane University, U of New Orleans</p>
2008-2009 2009-2010	Donna Shillington	RCL	<p>Public Lecture: Recipe(s) for continental breakup.</p> <p>Technical Lecture: An abrupt along-strike transition from magma-poor to magma-rich rifting in the eastern Black Sea.</p> <p>Schools Visited: Kutztown University, TAMU, U of Kentucky, Arizona State University, Marshall University, Miami University, Northern Illinois University</p>
2008-2009	Greg Hirth	SEIZE	<p>Public Lecture: Understanding earthquakes processes at the microscopic scale.</p> <p>Technical Lecture: The rheology of real rocks.</p> <p>Schools Visited: Texas Tech University, University of Texas at El Paso, Utah State University, Cal State Northridge, CICESE, SDSU, UCSB</p>
2008-2009 2009-2010	Tim Dixon	SEIZE	<p>Public Lecture: Unraveling Earth's Largest Earthquakes Using Space Techniques</p> <p>Technical Lecture: Comparing Short and Long Term Deformation as Recorded by Geodesy and Geology.</p> <p>Schools Visited: Dickinson College, PSU, Randolph College, Miami-Dade College, Calvin College, Michigan Tech University, Northwestern University, University of Wisconsin</p>
2008-2009	David Mohrig	S2S	<p>Public Lecture: Application of Earth Science and Engineering to Maintenance of the Mississippi River Delta.</p> <p>Technical Lecture: Comparing the Evolutions of Lowland Rivers and Submarine Channels.</p> <p>Schools Visited: Indiana University, Indiana-Purdue University, Fort Wayne, Indiana-Purdue University, Indianapolis</p>
2008-2009 2007-2008	Pat Wiberg	S2S	<p>Public Lecture: Transport and fate of DDT on the Palos Verdes shelf, CA: a source-to-sink story.</p> <p>Technical Lecture: Formation and preservation of event-scale stratigraphy in the coastal ocean.</p> <p>Schools Visited: Idaho State University, Montana Tech, Willamette University, UMD Center for Env. Science, FIU, UNC at Wilmington, University of Pittsburgh, Vanderbilt University</p>

Year	Speaker	Initiative(s)	Lecture Titles
2008-2009 2009-2010	Simon Klemperer	SF	<p>Public Lecture: Building continental crust in the Subduction Factory.</p> <p>Technical Lecture: Crustal structure and evolution of the Mariana intra-oceanic island arc.</p> <p>Schools Visited: Colorado State University, Southern Methodist University, University of Arizona, Chapman University, UC Riverside, University of Montana</p>
2007-2008	John Hopper	RCL	<p>Public Lecture: Massive volcanism during Earth's history from breaking continents apart.</p> <p>Technical Lecture: The Newfoundland-Iberia Rift System: Insights into crust and mantle processes of breakup and early seafloor spreading.</p> <p>Schools Visited: Case Western Reserve University, Colorado School of Mines, University of Miami, University of Tennessee</p>
2007-2008 2006-2007	Daniel Lizarralde	RCL	<p>Public Lecture: Different ways continents tear apart.</p> <p>Technical Lecture: Controls on extensional style: magma, slab windows, sediment, and geology in the Gulf of California.</p> <p>Schools Visited: Cal State Sacramento, SFSU, University of Alabama, Virginia Tech, East Carolina University, UNC Chapel Hill, Valdosta State University</p>
2006-2007 2007-2008	Casey Moore	SEIZE	<p>Public Lecture: Subduction zone superlatives: how plate convergence causes the largest earthquakes, the largest tsunamis, and the largest mountains.</p> <p>Technical Lecture: Where have all the earthquakes gone? Finding paleoseismogenic faults in mountains of mélangé.</p> <p>Schools Visited: Colorado College, Grand Valley State University, Juniata College, Kansas State University, University of Missouri-Columbia, Youngstown State University, TAMU, Trinity University, University of Houston</p>
2006-2007 2007-2008	Charles Nittrouer	S2S	<p>Public Lecture: Writing Earth history with continental-margin sedimentary processes.</p> <p>Technical Lecture: The ties that bind Source to Sink: within and between New Guinea and New Zealand.</p> <p>Schools Visited: Bowling Green State University, University of Delaware, University of Florida, WVU, Boston College, The Richard Stockton College of New Jersey, University of Maine</p>
2006-2007 2007-2008	Karen Fischer	SF	<p>Public Lecture: Where plates collide: The origin of volcanos and earthquakes in subduction zones.</p> <p>Technical Lecture: Mantle structure, dynamics and melting in the Central American subduction zone.</p> <p>Schools Visited: Georgia Southwestern State University, University of Arkansas, University of Georgia, University of Kansas, Crossroads Academy, Dartmouth College, UC Davis, Western Washington University</p>

Year	Speaker	Initiative(s)	Lecture Titles
2007-2008	Peter Kelemen	SF	<p>Public Lecture: (a) Origin and evolution of continental crust. (b) The future of geological exploration: Why, and Show?</p> <p>Technical Lecture: (a) Arc lower crust: The Talkeetna Continental Dynamics Project. (b) A viscous shear heating mechanism for intermediate depth earthquakes.</p> <p>Schools Visited: Central Michigan, Skidmore College, SUNY-Oswego, University of Colorado</p>
2005-2006	Neal Driscoll	S2S	<p>Public Lecture: Reading Earth history from the geologic record.</p> <p>Technical Lecture: Dispersal systems in actively deforming regions: Papua New Guinea has it all!</p> <p>Schools Visited: Montana State University, North Dakota State University, University of North Dakota</p>
2005-2006	Terry Plank	SF	<p>Public Lecture: Recycling within the Subduction Factory.</p> <p>Technical Lecture: The effect of water on mantle melting at subduction zones.</p> <p>Schools Visited: Boise State University, Humboldt State University, University of Alaska, Fairbanks</p>
2005-2006	Susan Schwartz	SEIZE	<p>Public Lecture: Great Earthquakes and Tsunamis: Causes and Effects.</p> <p>Technical Lecture: Seismic, Geodetic and Fluid Flow Constraints on Seismogenic Zone Processes in Costa Rica.</p> <p>Schools Visited: Bates College, Brooklyn College, University of New Hampshire</p>
2005-2006	Joann Stock	RCL	<p>Public Lecture: Plate tectonics and how continents split apart.</p> <p>Technical Lecture: Defining the continent/ocean boundary: Insights from active rifts.</p> <p>Schools Visited: College of Charleston, UNC Charlotte</p>

A10. Data Policies



GeoPRISMS Data Policy

In an effort to move towards a more efficient and open data sharing policy that ensures all data obtained with federal funds are accessible to the general public, NSF now requires all submitted proposals to include a data management plan. This document outlines data archiving and preservation requirements that Principal Investigators accepting NSF-GeoPRISMS support are obligated to meet. The information within this document is subject to revision as new policies come into play, and new means for archiving and accessing GeoPRISMS data become available.

NSF-OCE and NSF-EAR require the preservation of all data, samples, physical collections, curriculum materials and related research and education materials deriving from NSF funding, as well as the rapid archiving and dissemination of data. GeoPRISMS data need to be quickly released and available to all researchers in order to maximize technology transfer across the program, encourage integration of science within and across the initiatives, facilitate coordination of research, and permit construction and testing of hypotheses. The GeoPRISMS Data Management System (DMS) will serve as a requisite archive for all GeoPRISMS metadata, with linkages to other approved data repositories for selected data types. Due to the multidisciplinary nature of GeoPRISMS research, a number of different archives are approved for data archiving and are described below. In accepting support from the NSF-GeoPRISMS program, each Principal Investigator is obligated to meet the following data-management requirements.

Timing

Basic metadata (e.g., data types, sample types and locations, cruise navigation, etc.) must be provided to the GeoPRISMS DMS upon collection and no later than 60 days of the end of a field program. Digital metadata forms are available for downloading from the [GeoPRISMS DMS website](#) and should be used by all GeoPRISMS funded PIs during their field programs. Metadata forms, survey reports, survey navigation, cruise reports and cruise navigation should be sent to the GeoPRISMS DMS at info@marine-geo.org. Metadata will be made publicly available when placed in the archive registered in the DMS.

All data collected with GeoPRISMS funding must be archived as soon as practically possible and certainly within two years of the time the Principal Investigator(s) obtain access to them. Data will not be publicly released ahead of the two year limit unless specifically authorized by the PI(s) or required by the data policy governing that particular data (see Appendix 1). For data collected in continuing and multi-year projects, PIs are encouraged to submit new data as it becomes available.

Two years following the end of a field program, field data must be made freely available, consistent with NSF OCE/EAR, IRIS/PASSCAL and OBSIP policies where applicable. In the case of datasets not available to the investigators at completion of the field project (for example, because they are assembled by the relevant data-center before distribution) the two year moratorium period begins on the date that the complete dataset is made available to investigators. However, Principal Investigators are encouraged to

release data to other primary site investigators as soon as possible, and preferably within one year, following the end of a field season or completion of dataset processing.

Processed datasets must be made publicly available within two years following acquisition/generation. This policy applies even to those data and results that Principal Investigators have traditionally not been required to make publicly available (e.g. stacked and migrated seismic sections, geochemical analyses, DEMs and other rasters, tables of geologic samples). Processed data sets that directly support a publication are appropriate candidate products for archiving.

Archival

Digital data should be submitted to the [GeoPRISMS DMS](#) unless an alternate dedicated standard national repository exists for that data type (e.g. IRIS, UNAVCO, see Appendix below for full list of accepted alternate disciplinary repositories). Data must be in the format required by the applicable repository and Principal Investigators should work with repository personnel as data are being collected to assure compliance with their standards. In the case that data are submitted to an alternate national repository, GeoPRISMS DMS personnel must be notified of this submission so that proper cataloging and linkage with these data centers can be established and maintained. PIs are encouraged to submit digital data to the GeoPRISMS DMS immediately following their cruise/expedition/field program, where it will be incorporated with access restrictions as specified above.

Non-digital data for which no standard archive exists (e.g. land geological samples) must be archived by the Principal Investigator. Such data/samples must be made available to researchers upon request, but with all incurred costs borne by the recipient, rather than the provider.

In dealing with geological specimens, GeoPRISMS-funded investigators must: 1) include in the metadata provided to the GeoPRISMS DMS a list of samples taken and their location; 2) store samples in an NSF-supported repository or an alternative location (including their home institution) which has a written NSF-approved sample distribution policy (See Appendix IV of the NSF Division of Ocean Sciences Data and Sample Policy listed below; 3) follow the NSF-approved sample distribution policy and 4) Notify the GeoPRISMS DMS of any changes in permanent location for sample storage.

Documenting NSF Compliance

NSF now requires that all proposals provide a data management plan for the archival, documentation and sharing of data, samples, physical collections, curriculum materials and other related research and education products. Plans for the handling of data and other products will be considered in the review process. Compliance with the appropriate data policy will be evaluated in consideration of a Principal Investigator's record of prior support.

Annual reports must document compliance. Where a final report is due before the deadline for data submittal, the PI must notify the cognizant Program Officer after final data submittal.

Exceptions to this data policy may occur only through agreement between the PI and the cognizant Program Officer at NSF.

More Information

[General information on NSF data policies](#)

Depending on funding and resources used, the following data policies and others may apply:

- [OCE](#)
- [EAR](#)
- [EarthScope](#)
- [IODP](#)
- [UNAVCO](#)
- [IRIS PASSCAL](#)
- [List of Other Approved Data Repositories](#) (excel file, 70kb)
- [Click here for a PDF version of this document](#)
- [Click here to go to the MARGINS Data Policy](#)

MARGINS Data Policy (Released 30 June, 2005)

NSF-OCE and NSF-EAR require the preservation of all data, samples, physical collections, curriculum materials and related research and education materials deriving from NSF funding, as well as the rapid archiving and dissemination of data. MARGINS data need to be quickly released and available to all researchers in order to maximize technology transfer across the program, encourage integration of science within and across the initiatives, facilitate coordination of research, and permit construction and testing of hypotheses. The MARGINS Data Management System (DMS) will serve as a requisite archive for all MARGINS metadata, with linkages to other approved data repositories for selected data types. In accepting support from the NSF-MARGINS program, each Principal Investigator is obligated to meet the following data-management requirements:

Timing

- Basic metadata (e.g., data types, sample types and locations, cruise navigation, etc.) must be provided to the MARGINS DMS within 60 days of the end of a field program. Digital metadata forms are now available for downloading from the MARGINS DMS website (www.marine-geo.org/margins/) and should be used by all MARGINS funded PIs during their field programs. Metadata forms, survey reports, survey navigation, cruise reports and cruise navigation should be sent to the MARGINS DMS at info@marine-geo.org.
- All data collected with MARGINS funding must be archived as soon as practically possible and certainly within two years of the time the Principal Investigator(s) obtain access to them. Data will not be publicly released ahead of the two year limit unless specifically authorized by the PI(s). For data collected in continuing and multi-year projects, PIs are encouraged to submitted new data at yearly intervals.
- Two years following the end of a field program, data must be made freely available, consistent with IRIS/PASSCAL and OBSIP policies where applicable. In the case of datasets not available to the investigators at completion of the field project (for example, because they are assembled by the relevant data-center before distribution) the two year moratorium period begins on the date that the complete dataset is made available to investigators. However, Principal Investigators are encouraged to release data to other focus site investigators as soon as possible, and preferably within one year, following the end of a field season or completion of dataset processing.
- Processed datasets must be made publicly available within two years following acquisition/generation. This policy applies even to those data and results that Principal Investigators have traditionally not been required to make publicly available (e.g. stacked and migrated seismic sections, geochemical analyses, DEMs and other rasters, tables of geological samples).

Archival

- Digital data should be submitted to the MARGINS DMS (www.marine-geo.org/margins/) unless an alternate standard national repository exists (see Appendix below for list of accepted alternate repositories). Data must be in the format required by the applicable repository. In the case that data are submitted to an alternate national repository, the MARGINS DMS team must be notified of this submission so that proper cataloging of these data and linkage with these data centers can be maintained. PIs are encouraged to submit digital data to the MARGINS DMS

immediately following their cruise/expedition, where it will be incorporated with access restrictions as specified by the investigator, normally within the time periods specified in the MARGINS data policy.

- Non-digital data for which no standard archive exists (e.g. land geological samples) must be archived by the Principal Investigator. Such data/samples must be made available to researchers upon request, but with all incurred costs borne by the recipient, rather than the provider.
- In dealing with geological specimens, MARGINS-funded investigators must: 1) include in the metadata provided to the MARGINS DMS a list of samples taken and their location; 2) store samples in an NSF-supported repository or an alternative location (including their home institution) which has a written NSF-approved sample distribution policy (See Appendix IV of the NSF Division of Ocean Sciences Data and Sample Policy: www.nsf.gov/pubs/2004/nsf04004/nsf04004.pdf); 3) follow the NSF-approved sample distribution policy and 4) Notify the MARGINS DMS of any changes in permanent location for sample storage.

Documenting NSF compliance

- The NSF grant proposal guide (www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg) requires that proposal Project Descriptions outline plans for the archival, documentation and sharing of data, samples, physical collections, curriculum materials and other related research and education products. Plans for the handling of data and other products will be considered in the review process. Compliance with the appropriate data policy will be evaluated in consideration of a Principal Investigators record of prior support.
- Annual reports must document compliance. Where a final report is due before the deadline for data submittal, the PI must notify the cognizant Program Officer after final data submittal.
- Exceptions to this data policy may occur only through agreement between the PI and the cognizant Program Officer at NSF Appendices.

Appendices

Appendix 1: Other applicable data policies

Depending on funding and resources used, the following data policies and others may apply.

OCE: www.nsf.gov/pubs/2004/nsf04004/nsf04004.pdf

EAR: www.geo.nsf.gov/ear/EAR_data_policy_204.doc

IODP: http://www.iodp.org/index.php?option=com_docman&task=doc_download&gid=395

UNAVCO: www.unavco.org/community/policies_forms/DataPolicy.html

PASSCAL: www.passcal.nmt.edu/information/Policies/data_delivery.html

Appendix 2: Alternative Approved Data Repositories

See attached Excel spreadsheet: <http://www.nsf-margins.org/XLS/DataArchives.xls>

Note: If a particular data type is not mentioned here, check with your program officer or the MARGINS Office for specific guidance.