

CONTRACTS/GRANTS AWARDED 2012-2013

Allergan Foundation

L. Stratton
SB130133 2/26/13-2/25/14 \$1,000
Devereux Slough Hydrologic Functioning Restoration

American Chemical Society

A. Simms
52790-ND8 1/1/13-3/31/15 \$100,000
Hyperpycnal Subaqueous Fans of the Northern Santa Barbara Channel, Central California, USA

Cal EPA Water Control Board

A. Keller
11-170-140 9/28/12-12/31/13 \$200,000
LA RWQCB Determination of natural sources

California Department of Water Resources

T. Dunne
20130814 3/14/13-10/30/13 \$49,960
Analysis of the Potential for Gravel Augmentation in the Robinson Reach, Merced River

California Energy Commission

R. Geyer
20111479 3/1/13-2/15/14 \$49,898
Potential Rooftop Photovoltaic Electricity for Sustainable Transportation in California.

City of Avalon

J. Clark
SB130002 8/1/12-7/31/13 \$21,109
Linking coastal contamination to the local sewage system using a sulfur hexafluoride as deliberate tracer

DA Army Engineers/Vicksburg District, Corps of

D. Booth
W912HZ-12-2-0016 9/21/12-9/30/13 \$50,857
Web-Based Conceptual Model for Urban Stream Systems

Department of Interior

A. Simms
P12AC15060 8/6/12-4/1/13 \$2,409
Stream Terrace Mapping at Washita Battlefield National Historic Site

Electric Power Research Institute

A. Keller
EP-P42069/C18398 11/1/11-6/1/14 \$27,610
Modeling Nutrient Credit Calculations in Ohio River Basin

A. Keller
20130055 8/1/12-4/30/13 \$18,681

Developing InVEST to Mapping Ecosystem Services.		
Electric Power Research Institute Subtotal		\$46,291
 <u>Exxon Mobile Corporation</u>		
D. Burbank, J. Harvey		
20130909	2/1/13-12/31/13	\$7,500
Extracting Uplift Rates from Topographic Metrics in the California Coastal Ranges.		
 <u>International Potato Center (CIP)</u>		
L. Carvalho, C. Jones		
SB120184	1/1/12-12/31/12	\$150,000
	1/1/12-12/31/15	\$150,000
Regional Climate Variability and Changes in the Central Andes		
International Potato Center (CIP) Subtotal		\$300,000
 <u>Jet Propulsion Laboratory</u>		
J. Shi		
1360781	12/1/08-12/31/13	\$65,000
Technical Development for SMAP Soil Moisture Retrieval.		
 <u>Metropolitan Water District of Southern California</u>		
P. Holden		
20120655	5/5/12-6/30/13	\$10,000
Bucket Biosand Filter Enhanced with Slow-release Silver Impregnated Ceramic Debris.		
 <u>National Aeronautics and Space Administration</u>		
B. Bookhagen, M. Hanshaw, I. Potapenko		
NNX11AL4GH	10/1/11-9/30/13	\$30,000
Volumetric Glacial Changes in the Central Andes During the Past Four Decades: Climate Change, Debris Coverage, or ENSO Variability.		
 J. Dozier, J. Frew		
NNX11AK35A	6/24/12-6/23/13	\$357,604
	6/24/14-6/23/15	\$207,847
Error Analysis of MODIS Fractional Snow-Covered Area and Snow Albedo in Mountain Regions.		
 L. Hess		
NNX12AD27G	1/6/13-1/5/15	\$104,147
Land and Resource Use on the Amazon Floodplain Under Evolving Management Systems and Environmental Change: Fish, Forests, Cattle, and Settlements.		
 S. Maritorena, D. Siegel		
NNX11AE87G	2/8/13-2/7/14	\$135,015
From UV to Fluorescence, a Semi-analytical Ocean Color Model for MODIS and Beyond.		
 S. Maritorena, D. Siegel		
NNX13AK22A	5/15/13-5/14/17	\$238,491
Creating Unified Ocean Color Data Records with Uncertainties.		

J. Melack, L. Hess, S. MacIntyre NNX10AB66G Analysis and Synthesis of Carbon Dynamics on Amazon Floodplains.	1/1/10-12/31/13	\$107,911
N. Nelson, C. Carlson, D. Siegel NNX09AL09G Ocean Color Observations on CLIVAR: Inherent Optical Properties and Community Structure on Trans-Ocean Sections.	5/29/09-5/28/14	\$199,685
N. Nelson, D. Siegel NNX11AE99G Bermuda Bio-Optics Project: Enhancement of Measurements for New Ocean Color Applications.	2/8/13-2/7/14 2/8/11-2/7/14	\$218,364 \$55,129
D. Siegel NNX11AL94G Evaluating NPP Ocean Color Data Products in a Complex Coastal Environment: The Plumes and Blooms Program.	7/7/11-7/6/14	\$160,417
D. Siegel NNX13AC35G Controls on Open Ocean Productivity and Export eXperiment - COOPEX	10/1/12-3/31/14	\$92,871
D. Siegel, T. Bell 12-Earth12F-0239 Hyperspectral Remote Sensing of Kelp Condition in the Santa Barbara Channel.	9/1/12-8/31/13	\$30,000
D. Siegel, F. Henderikx-Freita NNX11AQ26H Bio-optical Variability of Plumes, Blooms and Relaxations in the Santa Barbara Channel: How Biased are our Current Assessments?	9/1/11-8/31/13	\$30,000
D. Siegel, R. Lawson NH10AP28H Phytoplankton Community Composition and Inherent Optical Properties (IOP) in a Complex Coastal Environment.	9/1/12-8/31/13	\$30,000
D. Siegel, N. Nelson NNX11AF63G A Mechanistic Approach Towards the Remote Assessment of Carbon Export by Sinking Particles in the Open Ocean.	4/1/11-3/31/14 4/1/11-3/31/14	\$172,501 \$295,554
National Aeronautics and Space Administration Subtotal		\$2,465,536

National Oceanic and Atmospheric Administration

L. Carvalho, C. Jones NA10OAR4310170 An Integrated View of the American Monsoon Systems: Observations, Models and Probabilistic Forecasts.	8/1/12-7/31/14	\$134,840
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National Science Foundation

R. Archuleta, C. Ji EAR-1215769 Improving Resolution of Finite Inversions With Increasing Bandwidth.	9/1/12-8/31/14	\$359,859
J. Clark OCE-1031352 Collaborative Research: Large-scale, Long-term, Multi-directional, Cross-hole Experiments in the Upper Oceanic Crust Using a Borehole Observatory Network.	9/1/12-8/31/13	\$81,222
J. Clark OCE-1260353 Collaborative Research: Completing single- and cross-hole hydrogeologic and microbial experiments: Juan de Fuca Flank.	6/1/13-5/31/15	\$45,558
B. Clarke, D. Burbank 12272278 Quantifying Near-Surface Patterns of Bedrock Fractures and Assessing Controls on Fracture Formation.	9/1/12-8/31/14	\$171,556
J. Cottle EAR-1119380 How Does the Mid-crust Accommodate Deformation in Large, Hot Collisional Orogens? Insight From the Himalaya-Tibet System.	7/1/13-6/30/14	\$102,884
F. Davis EF-1065864 Collaborative Research: Do Micro-environments Govern Macro-ecology?	6/1/12-5/31/16	\$2,328,985
B. Hacker EAR-1008760 Collaborative Research: The Suturing Process: Insight from the India-Asia Collision Zone.	6/1/13-5/31/15	\$117,555
B. Hacker 1249486 Collaborative Research: The Role of Fluids in Intermediate-Depth Seismicity and Wedge Anisotropy: Case Studies for Cascadia and Alaska, With a Comparison to Japan.	4/1/13-3/31/16	\$75,489
B. Hacker, A. Kylander-Clark EAR-1219942 What Determines Whether the Deep Continental Crust Flows?	7/1/12-6/30/15	\$329,701
C. Jones, L. Carvalho AGS-1053294 The Madden-Julian Oscillation and Predictability of Extreme Precipitation in the United States	7/1/13-6/30/14	\$104,796
A. Keller, P. Holden, H. Lenihan, B. Harthron, G. Stucky, R. Nisbet, J. Schimel, E. McCauley, S. Suh SB090050 CEIN-Predictive Toxicological Assessment and Safe Implementation of Nanotechnology in the Environment.	9/1/08-8/31/13 9/1/08-8/31/13	\$1,487,068 \$46,101

B. Kendall		
DEB-1120865	8/1/11-7/31/14	\$25,374
Collaborative Research: Demographic heterogeneity in landscapes and communities		
J. M. Melack		
DEB-1242594	9/1/12-8/31/17	\$167,056
LTREB Renewal-Collaborative Research: Responses of High Elevation, Aquatic Ecosystems to Interannual Climate Variability		
S. Porter		
EAR-1251959	5/1/13-4/30/14	\$40,000
Collaborative Research: Estimating the Tempo of the Cambrian Explosion		
M. Rioux		
EAR - 1250522	2/1/13-1/31/15	\$195,014
Timescales of development of sub-ophiolite subduction: High precision U-Pb dating and geochemical characterization of late magmatism and metamorphism in the Oman-U.A.E. ophiolite		
M. Singer		
EAR - 1226741	1/1/12-12/31/15	\$96,466
Collaborative Research: Establishing Process Links Between Streamflow, Sediment Transport/Storage, and Biogeochemical Processing of Mercury.		
C. Sorlien		
OCE-1233248	2/15/13-1/31/14	\$26,020
Collaborative Research: The North Antolian Fault System in the Marmara Sea, Turkey - Insights from the Quaternary evolution of a multi-stranded transform		
S. Suh		
20130851	3/15/13-2/28/15	\$99,795
Impact of shale gas on renewable energies		
National Science Foundation Subtotal		\$3,573,844
<u>Northeastern University</u>		
J. Steidl		
501947-78052	10/1/12-9/30/13	\$39,092
Induced-Partial Saturation Through Transport and Reactivity for Liquefaction Mitigation.		
<u>Orange County Sanitation District</u>		
J. C. Ohlmann		
SP-125-12	9/1/12-9/30/13	\$98,846
Monitoring the Fate and Transport of the Orange County Sanitation District 78" Outflow Effluent Plume		
<u>Oregon State University</u>		
J. Ohlmann		
S1364A-A	3/1/12-2/28/13	\$47,413
DYNAMics of the Madden-Julian Oscillation / DYNAMO Subsurface Fluxes.		
N. Tague		
S1343H-A	7/1/12-6/30/14	\$44,486

Ecohydrological Component of Willamette Water 2100 Project.
Oregon State University Subtotal **\$91,899**

Purdue University

J. Steidl
 NEES-4101-31902 10/1/12-9/30/13 \$44,114
 10/1/09-9/30/13 \$345,130
 10/1/09-9/30/13 \$64,032
 NEES Consortium Operations: 2004-2014.
Purdue University Subtotal **\$453,276**

Santa Ynez Band of Chumash Indians

P. Holden
 20121540 8/1/12-12/31/12 \$16,628
 Assessment of Fecal Contamination in Zanja de Cota Creek on the Chumash Reservation, Santa Ynez, CA

Southern California Gas Company

J. Thorsch
 83445 12/5/12-12/30/13 \$7,500
 Kids In Nature

Southern California Wetlands Recovery Project

L. Stratton
 20121179 9/19/12-5/31/14 \$29,996
 UCSB Campus Lagoon Salt Marsh Restoration

U.S. Fish & Wildlife Service

L. Stratton
 F12AC00683 10/1/12-9/30/15 \$44,800
 Recovery Activities for Nipomo Lupine

 S. Sweet
 F12AC01020 6/1/12-6/1/17 \$12,013
 Research and Restoration at Casmalia Landfill: Ecosystem Evaluation and Restoration for Species
 Recovery.
U.S. Fish & Wildlife Service Subtotal **\$56,813**

U.S. Geological Survey

J. Cottle
 G12AP20049 3/2/13-3/3/14 \$40,450
 Evaluating Mechanisms for Rare Earth Phosphate Mineralization in the Proterozoic Pinto Gneiss, Music
 Valley, Eastern Mojave, California

University Industry Research Corporation

J. Frew
 SB130034 10/1/12-9/30/13 \$62,000
 10/1/12-9/30/13 \$62,000
 Intel Science and Technology Center for Big Data - ISTC-BD
University Industry Research Corporation Subtotal **\$124,000**

University of California - Los Angeles

A. Keller
SB130151 4/17/13-6/30/14 \$56,249
Shell Oil - UCLA Report

J. Ohlmann
SB110079 2/1/12-1/31/14 \$19,112
Improving the Understanding of Submesoscale Eddies, Fronts, and Filaments with Coincident Satellite, in situ, and Aircraft Measurements

University of California – Los Angeles Subtotal \$75,361

University of California - Merced

N. Tague
20121104 9/1/12-8/31/13 \$79,542
The California Critical Zone Observatory.

University of California - San Diego

J. Ohlmann
20121472 7/1/12-6/30/15 \$20,000
Observation of Surface Current Trajectories from the Inshore California Current Region.

L. Romero
2004310 1/1/13-12/31/13 \$35,985
Modeling and Analysis of Measurements of Waves Interacting with Eddies in the Gulf of Mexico

University of California – San Diego Subtotal \$55,985

University of California – Santa Cruz

R. Nisbet
UCSCMCA 13-008 8/8/12-8/7/14 \$60,079
From the Watershed to the Ocean: Using NASA Data and Models to Understand and Predict Variations in Central California Salmon.

University of Southern California

R. Archuleta
20121443 2/1/12-1/31/13 \$25,000
SCEC4 Participation, Project E: Dynamic Ruptures with Off-Fault Dissipation Processes: Constraints on Energy Partition, Size-Dependent Levels of Prestress and Ground Motion Predictions.

R. Archuleta
Y86552-D 2/1/12-1/31/14 \$25,000
SCEC4 Participation, Project D: 1987 Superstition Hills Earthquake: A Triggered Event with a Complex Nucleation and Rupture Dynamics.

R. Archuleta
10035505 11/1/12-8/31/13 \$47,000
SCEC4 Participation, Project F: Broadband Modeling of Earthquake Ground Motions

R. Archuleta
Y86552-H 2/1/13-1/31/14 \$25,000

SCEC4 Participation, Project H: Incorporating Roughness and Supershear in UCSB Broadband Modeling

R. Archuleta, J. Carlson
20121441 2/1/12-1/31/13 \$20,000

SCEC4 Participation, Project C: Implications of Physical Dissipation Mechanisms for Dynamic Faulting and Structural Resilience.

R. Archuleta, C. Ji
Y86552-I 2/1/13-1/31/14 \$25,000

SCEC4 Participation, Project I: Developing and testing Realtime finite fault inversion and ground motion prediction algorithms using ShakeOut synthetic datasets

R. Archuleta, J. Steidl
20121440 2/1/12-1/31/13 \$30,000

2/1/12-1/31/14 \$15,000

SCEC4 Participation, Project B: The SCEC Portable Broadband Instrument Center

R. Archuleta, J. Steidl
20121439 2/1/12-1/31/13 \$30,000

2/1/13-1/31/14 \$18,000

SCEC4 Participation, Project A: SCEC Borehole Instrumentation Center

R. Archuleta, T. Tanimoto
39073248 2/1/13-1/31/14 \$25,000

SCEC4 Participation, Project G: Modeling high-frequency seismic waves in Southern California

University of Southern California Subtotal \$285,000

University of Washington

J. Shi
727195 6/20/12-6/19/13 \$11,599

6/20/11-6/19/13 \$28,400

Forward Physical Radiative Transfer Models and Retrieval Algorithms for Radar Remote Sensing of Terrestrial Snow at X Band and Ku Band.

University of Washington Subtotal \$39,999

Yucaipa Valley Water District

J. Clark
SB130070 12/4/12-11/30/13 \$20,115

Travel time assessment near the Yucaipa spreading ponds using sulfur hexafluoride

Grand Total \$8,652,825