



UC SANTA CRUZ

The Divisions of Physical & Biological Sciences and Social Sciences are proud to present  
**THE FOURTH ANNUAL UCSC CLIMATE CONFERENCE**

# Changing Climate

**Acting Now to Secure a Sustainable Future**

**February 24–25, 2017  
UC Santa Cruz**

Friday  
February 24, 2017  
Media Theater 110  
7:30PM

Keynote Lecture: **Veerabhadran Ramanathan**

## Climate Change Morphing into an Existential Threat: Need for a New Approach

Saturday  
February 25, 2017  
Colleges 9/10  
Multipurpose Room

### 10:00AM: Engineering Change

Moderator: **Sue Carter** Physics, UC Santa Cruz

Panelists: **David Auston** Institute for Energy Efficiency, UC Santa Barbara  
**Peter Cartwright** Avalon Ecopower, Calpine (formerly)  
**Daniel Shugar** NEXTracker, Fremont  
**Whendee Silver** Environmental Science, Policy & Management, UC Berkeley

### 1:00PM: Motivating Change

Moderator: **Jeff Bury** Environmental Studies, UC Santa Cruz

Panelists: **Mark Jacobson** Civil & Environmental Engineering, Stanford  
**Derek Proudian** Daintree Networks, Los Altos  
**Dylan Sullivan** Natural Resources Defense Council, San Francisco  
**Emily Wimberger** California Air Resources Board, Sacramento

### 3:00PM: Communicating Change

Moderator: **Rob Irion** Science Communication Program, UC Santa Cruz

Panelists: **Susan Hassol** Climate Communication  
**Laura Helmuth** Washington Post  
**Jeff Kiehl** National Center for Atmospheric Research, UC Santa Cruz  
**Edward Maibach** Center for Climate Change Communication, George Mason University

### 7:30PM: **The Fred Keeley Lecture on Environmental Policy** Climate Change Science and Policy in a President Trump Administration

Moderator: **Fred Keeley**  
Three-term member of California State Assembly and recently retired Treasurer of Santa Cruz County

Panelists: **Ken Alex** Senior Policy Advisor to Governor Brown (Stevenson College, Politics, 1979)  
**Miriam Greenberg** Sociology, UC Santa Cruz  
**John Laird** Secretary of the California Natural Resources Agency (Stevenson College, Politics, 1972)  
**Erika Zavaleta** Ecology & Evolutionary Biology, UC Santa Cruz

For more information visit <http://pbsci.ucsc.edu/2017-climate-conference/index.html>



### Friday Keynote Speaker: **Veerabhadran Ramanathan**

Veerabhadran discovered the greenhouse effect of halocarbons, particularly CFCs, in 1975. Along with R. Madden, he predicted in 1980 that global warming would be detected by 2000. He has won numerous prestigious awards, including the Tyler Prize, which is the top environmental prize given in the U.S., the Volvo Prize, the Rossby Prize, the Zayed Prize, and the 2013 Champions of Earth for Science and Innovation Award from the United Nations. He currently serves on Pope Francis' Council for the Pontifical Academy of Sciences and chairs an international science team from Asia, Africa, and Latin America under the Atmospheric Brown Clouds Program sponsored by the United Nations Environmental Programme.



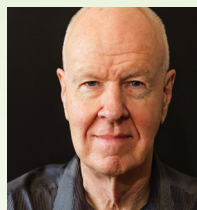
## Engineering Change



### **Sue Carter**

Physics, Associate Vice Provost  
Division of Graduate Studies  
UC Santa Cruz

Sue has expertise in thin-film, solution-deposited semiconducting films. Her research laboratory focuses on energy-related technology including photovoltaics, solid-state lighting, and luminescent solar concentrators.



### **David Auston**

Institute for Energy Efficiency  
UC Santa Barbara

David's research focuses on climate change mitigation. The University of California President recently designated him the first recipient of the UC System Wide Sustainability Champion award, in recognition of his contributions to the UC Carbon Neutrality Initiative.



### **Peter Cartwright**

Avalon Ecopower  
Calpine (formerly)

Pete's career in the domestic and international power markets has included fossil fuels, nuclear, and renewables. He founded Calpine, a leading independent power company, and today acts as a power industry consultant advisor.



### **Daniel Shugar**

NEXTracker, Fremont

Dan helped build NEXTracker into one of the fastest growing cleantech companies in the U.S. Before he started NEXTracker, he served as CEO for the innovative cell manufacturer Solaria Corporation.



### **Whendee Silver**

Environmental Science  
Policy & Management  
UC Berkeley

Whendee studies the biogeochemical effects of climate change and human impacts on the environment, and the potential for mitigating those effects. Her research includes studying the effects of deforestation, reforestation, and land-use on carbon sequestration.

## Motivating Change



### **Jeff Bury**

Associate Professor Environmental  
Studies, UC Santa Cruz

Jeff's research is concerned with the transformation of natural and social environments in Latin America, recently focusing on new frontiers of extractive industries in the Andes and the political economy of climate change and glacier recession in the Cordillera Blanca (Peru).



### **Mark Jacobson**

Civil & Environmental Engineering  
Stanford

Mark directs the Atmosphere/Energy Program at Stanford University. His areas of research include renewable energy and developing state and country energy plans for 100% wind, water, and solar energy. In that work he co-founded The Solutions Project.



### **Derek Proudian**

Daintree Networks  
Los Altos

Derek has three decades of experience in high-tech finance, marketing and engineering leadership. Before joining Daintree, he held CEO roles at five venture-capital backed companies, including Zip2 (Elon Musk's first company).



### **Dylan Sullivan**

Natural Resources Defense Council,  
San Francisco

Dylan works to reduce carbon emissions in the electricity sector, engaging collaboratively with electric utilities, big energy users, trade associations, and consumer advocates to implement clean energy policies and programs.



### **Emily Wimberger**

California Air Resources Board,  
Sacramento

Emily is the chief economist at the California Air Resources Board, where she advises the Executive Office and Chairman on economic issues and leads a team of economists working to support ARB's economic analyses.

## Communicating Change



**Rob Irion**  
Science Communication Program  
UC Santa Cruz

Rob is a journalist who has written for a range of publications including *Science*, *National Geographic*, *Smithsonian*, *Scientific American*, *Discover*, *New Scientist*, and *Slate*. He directed the UC Santa Cruz Science Communication Program for ten years.



**Susan Hassol**  
Climate Communication

Susan is a climate change communicator, analyst, and author known for her ability to make complex issues accessible to a wide variety of audiences. Among her work, she edited all three U.S. National Climate Assessments.



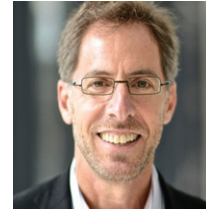
**Laura Helmuth**  
Washington Post

Laura is the editor of the *Washington Post's* health, science and environment team and is president of the National Association of Science Writers. She was previously an editor at *National Geographic* and *Slate*.



**Jeff Kiehl**  
National Center for  
Atmospheric Research  
UC Santa Cruz

Jeff's research focuses on a range of topics about climate change, including the Earth's deep past climates and what they can tell us about future climate change, effects on biodiversity, and the hydrologic cycle.



**Edward Maibach**  
Center for Climate Change  
Communication  
George Mason University

Edward directs the Center for Climate Change Communication at George Mason University. He recently co-chaired the Engagement & Communication Working Group for the 3rd National Climate Assessment.

## The Fred Keeley Lecture on Environmental Policy

### Moderator: Fred Keeley

Three-term member of California State Assembly and recently retired Treasurer of Santa Cruz County

Fred is a state and national ocean policy leader. As a California legislator, Fred authored the Marine Life Management Act and California Ocean Science Trust Act, co-authored the Marine Life Protection Act, and authored the two largest environmental protection bonds in the nation's history. Fred serves on the board of Ocean Champions, a national non-profit organization that supports pro-ocean protection candidates for election to the House of Representatives and the United States Senate. Recently, Fred led the effort that resulted in President Obama designating the Cotoni-Coast Dairies property in Santa Cruz County as the nation's newest National Monument. Fred is on faculty in the graduate program of public administration at San Jose State University, and at the Panetta Institute for Public Policy.



**Ken Alex**  
Senior Policy Advisor  
to Jerry Brown  
Stevenson College, Politics

Ken is a Senior Policy Advisor to Governor Jerry Brown and the Director of the Governor's Office of Planning and Research, focusing on energy, environment, and land-use. He is a graduate of Harvard Law School and UC Santa Cruz.



**Miriam Greenberg**  
Professor, Sociology  
UC Santa Cruz

Miriam's research interests include urban studies, environmental studies, and crisis and sustainability. She has studied how forms of inequality and risk have helped turn discrete disasters into longer-term crises in major cities.



**John Laird**  
Secretary of the California  
Natural Resources Agency  
Stevenson College, Politics

John was appointed California Secretary for Natural Resources by Governor Jerry Brown in 2011. In nearly 40 years of public service he has also served as an elected official, including on the Santa Cruz City Council, two terms as Santa Cruz Mayor, and three terms in the California Assembly.



**Erika Zavaleta**  
Professor, Ecology  
and Evolutionary Biology  
UC Santa Cruz

Erika studies the drivers and consequences of changing biological diversity and the role of ecology in guiding effective conservation practices. She strives to bridge ecological theory, training, and research, with sound conservation and management practice.