Overview

The impacts of global warming result in a ‘perfect storm’ of challenges for the public space of cities. The combination of severe heat waves, exacerbated by the Urban Heat Island (UHI) effect, pose severe health hazards for urban populations (some of the poorest and most vulnerable) and place extreme stress on infrastructures, such as energy, public health facilities, transportation, and water. The challenges of this ‘perfect storm’ will have serious impacts on the every day lives and well being of hundreds of millions of people around the globe.

The 2016 Philomathia Forum will bring together leading urban climatologists and planners/designers to explore the current state-of-the-art of strategies for adaptation and mitigation. It will examine current climate modeling science from the global/regional scale, to the city scale and to the scale of public space and its measures of human comfort, especially the impacts on human health and well being. It will evaluate the best planning and design practices in different climate zones and for specific city types, and will seek to identify gaps in knowledge, future research agenda, and the implications for public policy.

The Forum will be followed by two related events: the Berkeley Cleantech University Prize Competition and the BERC Innovation Expo. The Berkeley CUP Program provides selected student teams with 15 weeks of cleantech entrepreneurial training, focused mentoring and access to prototyping by providing access to expertise and facilities throughout the UC Berkeley Innovation Ecosystem. On February 18, seven student-based cleantech startups from throughout the U.S. western region will compete for a $100,000 prize. The BERC Innovation Expo showcases innovative student research going on at Berkeley in the fields of energy & resources. Student research posters will be judged by Berkeley community members for a $5,000 prize pool.

Program Agenda

Program: Philomathia Forum on Energy and Climate
Date: Thursday, February 18, 2016
Venue: Banatao Auditorium, Sutardja Dai Hall, UC Berkeley
8:15  Registration, Coffee and Networking

9:00  Welcome
Paul Wright, Director, BECI

9:15  Keynote
Nicholas Dirks, Chancellor, UC Berkeley

9:30  Session 1: Climate Change and Global Warming
Harrison Fraker, Professor of Architecture & Urban Design, Chair Energy Resources Group, UC Berkeley (Moderator)

Ten-Minute Lightning Talks:
Gabriel Lau, Professor of Geography and Resource Management, CUHK
Bill Collins, Director, Climate & Ecosystem Division, LBNL
Margaret Torn, Co-Lead, Climate and Carbon Sciences Program, LBNL

Discussion Respondents:
Andrew Jones, Research Scientist, Society and Integrated Earth Systems, LBNL
Steven Yim, Professor of Geography and Resource Management, CUHK

10:30  Break

11:00  Session 2: Risks - Health, Infrastructure, Economics, Negative Feedbacks
Stefano Bertozzi, Dean, School of Public Health, UC Berkeley (Moderator)

Ten-Minute Lightning Talks:
Linda Rudolph, Director, Center for Climate Change and Public Health
Cole Roberts, Energy and Resource Sustainability, Arup SF
Kristina Hill, Professor of Environmental Planning & Urban Design, UC Berkeley

Discussion Respondents:
Bruce Riordan, Program Director, Climate Readiness Institute
Rachel Morello-Frosch, Professor of Environmental Science, UC Berkeley
David Ackerly, Professor of Integrative Biology, UC Berkeley

12:00  Lunch

1:00  Session 3: Mitigation – “Moonshot Strategies”
Edward Ng, Professor of Architecture, Chinese University of Hong Kong (Moderator)

Ten-Minute Lightning Talks:
Mary Ann Piette, Director, Building Technology and Urban Systems, LBNL
Whendee Silver, Professor of Ecosystem Ecology, UC Berkeley
Rosey Jencks, Lead, Urban Watershed Management & Stormwater Planning, SF PUC
Chao Ren, Professor of Architecture, Chinese University of Hong Kong

Discussion Respondents:
Christopher Jones, Energy and Resources Group, UC Berkeley
Max Moritz, Fire Ecology and Management, UC Berkeley

2:30  **Break**

3:00  **Session 4: Adaptation/Resilience – “Moonshot Strategies”**
Isha Ray, Professor of Energy and Resources, UC Berkeley (Moderator)

Ten-Minute Lightning Talks:
Thomas Auer, Professor of Architecture, Technische Universität München
Jeffrey Long, Professor of Chemistry and Chemical & Biomolecular Engineering, UC Berkeley
Harrison Fraker, Professor of Architecture and Urban Design, UC Berkeley

Discussion Respondents:
Therese Peffer, Program Director of Enabling Technologies, BECI
Alexandra von Meier, Electric Grid Director, BECI

4:00  **Prospects for a Low Carbon Future**
Jim Williams, Director, Deep Decarbonization Pathways Project; Chief Scientist, Energy & Environmental Economics

4:30  **Closing Session**
Libby Schaaf, Mayor of Oakland - Reflections on Paris COP21, Implications for Oakland

4:45  **Adjourn**
Proceed to Sibley Auditorium for the Berkeley Cleantech University Prize