

July 17, 2014

ASP Summer Colloquium

Uncertainty in Climate Change Research:

An Integrated Approach

July 21 – August 6, 2014

NCAR Mesa Lab Main Seminar Room (Week 1)

NCAR Foothills Lab 2 Main Seminar Room (Weeks 2 and 3)

Agenda

MONDAY July 21

- 7:30 a.m. Buses depart from Millenium Hotel for NCAR Mesa Lab
- 08:00 – 08:30 Pick up registration materials, badges
- Welcome and Overview of Workshop**
- Session Chair: Linda Mearns**
- 08:30 – 08:45 Welcome, Jim Hurrell, Director of NCAR and Chris Davis, Director ASP
- 08:45 – 10:00 Welcome & Overview of Workshop – Linda Mearns, NCAR; Chris Forest, Penn State U.; Hayley Fowler, Newcastle U.; Rob Wilby, Loughborough U.
- 10:00 – 10:30 Break
- 10:30 – 12:30 Introduction of Participants (~ 3 minutes each)
- 12:30 – 01:30 Lunch
- 01:30 – 05:00 **Decision Making – Part I**
- Session Chair: Linda Mearns**
- 01:30 – 03:00 Laying the Policy Groundwork for Considering Integrated Uncertainty – Sarah Michaels, University of Nebraska
- 03:00 – 03:30 Break
- 03:30 – 05:00 Risks and Rewards: Managing Risk in an Uncertain Future – Casey Brown, University of Massachusetts
- 05:30 – 08:00 Poster Session and Dinner – Mesa Lab Cafeteria
- 08:15 – 08:40 Transportation to Millennium Hotel

TUESDAY July 22

- 08:00 – 08:30 Transportation to Mesa Lab
- 08:30 – 12:00 **Climate Change Part I**
- Session Chair: Casey Brown**
- 08:30 – 10:00 Climate/Earth System Projections and their Uncertainties: An Overview - Chris Forest, Penn State University

- 10:00 – 10:30 Break
- 10:30 – 12:00 End-to-end Uncertainty Quantification in Climate Modeling: An Impossible Goal?
– Ben Sanderson, NCAR
- 12:00 – 01:30 Lunch
- 01:30 – 05:00 **Impacts, Adaptation, and Vulnerability (IAV) Part I**
Session Chair: Hayley Fowler
- 01:30 – 03:00 Uncertainties of Climate Change Impacts in Agriculture – Senthold Asseng, U. Florida
- 03:00 – 03:30 Break
- 03:30 – 05:00 The Elephant, the Blind, and the Inter-sectoral Intercomparison of Climate Impacts
– Katja Frieler, Potsdam Institute for Climate Impact Research (PIK)
- 05:15 – 05:40 Buses back to hotel

WEDNESDAY July 23

- 08:00 – 08:30 Transportation to Mesa Lab
- 08:30 – 12:00 **Uncertainty Quantification (UQ) Methods**
Session Chair: Chris Forest
- 08:30 – 10:00 Methods For Uncertainty Quantification: A Statistical Perspective – Steve Sain, NCAR
- 10:00 – 10:30 Break
- 10:30 – 12:00 Uncertainty and Extremes – Claudia Tebaldi, NCAR
- 12:00 – 01:30 Lunch
- 01:30 – 03:00 **Introduction to Projects** – Project Plans - Choosing projects
- 03:00 – 03:30 Break
- 03:30 – 05:30 Work session (in groups)
- 05:30 – 06:00 Buses back to hotel

THURSDAY July 24

- 08:00 – 08:30 Transportation to Mesa Lab
- 08:30 – 12:00 **Decision Making Part II**
Session Chair: Rob Wilby
- 08:30 – 10:00 Judgment and Communication of Uncertainty: A Psychological Perspective – David Budescu, Fordham University
- 10:00 – 10:30 Break
- 10:30 – 12:00 Supporting Climate Related Decisions Under Uncertainty – Rob Lempert, RAND

12:00 – 01:30 Lunch
01:30 – 05:30 **Project Work**
01:30 – 03:00 Work session
03:00 – 03:30 Break
03:30 – 05:30 Work session
05:45 – 06:15 Buses back to hotel

FRIDAY July 25

08:00 – 08:30 Transportation to Mesa Lab
08:30 – 12:00 **IAV Part II**
Session Chair: Hayley Fowler
08:30 – 10:00 Uncertainty in Hydrological and Water Resource Modeling – Rob Wilby, Loughborough University, UK
10:00 - 10:30 Break
10:30 – 12:00 Impacts on Transportation Infrastructure – Jennifer Jacobs, University of New Hampshire
12:00 – 01:30 Lunch
01:30 – 05:00 **Climate Change II**
Session Chair: Chris Forest
01:30 – 03:00 Uncertainty in Climate Change Projections: The Role of Internal Variability – Clara Deser, NCAR
03:00 – 03:30 Break
03:30 – 05:00 Downscaling Climate Information and Uncertainty – Hayley Fowler, U. of Newcastle and Linda Mearns, NCAR
05:15 – 05:40 Buses back to hotel

SATURDAY July 26

Visit to Rocky Mountain Research Station and Nederland - Chris Forest

SUNDAY July 27

No activities – Free Time and/or Work on Projects

Week 2 – Foothills Lab 2

MONDAY July 28

08:00 – 08:30 Transportation to Foothills Lab 2

08:30 – 12:00 **Climate Change III/ IAV III**
Session Chair: Sarah Michaels

08:30 – 10:00 Emissions Scenarios: from Emissions to Concentrations – Mort Webster, Penn State University

10:00 - 10:30 Break

10:30 – 12:00 Uncertainty and Vulnerability – Paty Romero Lankao, NCAR

12:00 – 01:30 Lunch

01:30 – 03:00 Uncertainty in Climate Change Adaptation – Suraje Dessai, University of Leeds, UK

03:00 – 03:30 Break

03:30 – 05:00 The Policy Portfolio Problem: Mitigation and Adaptation – Mort Webster, Penn State University

05:15 – 05:45 Buses back to hotel

TUESDAY July 29

08:00 – 08:30 Transportation to Foothills Lab 2

08:30 – 12:00 **Climate Change/IAV III**
Session Chair: Hayley Fowler

08:30 – 10:00 National Climate Scenarios – Suraje Dessai, U. Leeds, UK

10:00 – 10:30 Break

10:30 – 12:30 Prior Participants Panel – Hayley Fowler (Chair), M. Glotter, U. Chicago; S. van Pelt, Wageningen U., The Netherlands; S. Steinschneider, U. Massachusetts; S. deBrito Guerreiro, U. Newcastle, UK

12:30 – 01:30 Lunch

01:30 – 03:00 Project Work Sessions

03:00 – 03:30 Break

03:30 – 05:00 Project Work Sessions

05:15 – 05:40 Buses back to hotel

WEDNESDAY July 30

08:00 – 08:30 Transportation to Foothills Lab

08:30 – 12:00 **Integration I**
Session Chair: Linda Mearns

08:30 – 10:00 Stakeholder Panel – J. Smith, Stratus Consulting; J. Lukas, U. Colorado, Boulder; L. Joyce, USDA Forestry; L. Kaatz, Denver Water (Panel Chair)

10:00 – 10:30 Break

- 10:30 – 12:00 Distinguishing Uncertainty, Diversity and Insight – Lenny Smith, London School of Economics, UK
- 12:00 – 01:30 Lunch
- 01:45 – 02:15 Buses back to hotel

FREE AFTERNOON!

THURSDAY July 31

- 08:00 – 08:30 Transportation to Foothills Lab 2
- 08:30 – 12:00 **Integration II - Coastal Impacts**
Session Chair: Rob Wilby
- 08:30 – 10:00 Becoming Decision-Relevant: Reports from the Lowlands of Coastal Adaptation about Uncertainties that Matter in Decision-Making – Susanne Moser, Susanne Moser Research and Consulting
- 10:00 – 10:30 Break
- 10:30 – 12:00 The US Army Corps of Engineers’ Approach to Sea-level Change – Kate White, US Army Corps of Engineers (ACE)
- 12:00 – 01:30 Lunch
- 01:30 – 03:00 Characterizing the Uncertainty Surrounding Sea-level Rise Projections to Inform Decision-making – Klaus Keller, Penn State University
- 03:00 – 03:30 Break
- 03:30 – 05:30 Interim Project Reports
- 05:45 – 06:15 Buses back to hotels

FRIDAY August 1

- 08:00 – 08:30 Transportation to Foothills Lab2
Session Chair: Chris Forest
- 08:30 – 10:00 Ethics and Uncertainty - Wendy Parker, Durham University, UK and Nancy Tuana, Penn State University
- 10:00 – 10:30 Break
- 10:30 – 12:00 Project Work Sessions
- 12:00 – 01:30 Lunch
- 01:30 – 05:30 **Robust Decision Making (RDM) Competition**
Session Chairs: Rob Lempert and Chris Forest
- 01:30 – 03:00 Robust Decision Making Game/Competition – Rob Lempert, RAND and Chris Forest, Penn State U.
- 03:00 – 03:30 Break
- 03:30 – 05:30 Robust Decision Making Game/Competition (cont’d)
- 05:45 – 06:15 Buses back to hotels

SATURDAY-SUNDAY Aug 2-3

No Activities Planned

Week 3 – Foothills Lab 2

MONDAY August 4

- 08:00 – 08:30 Transportation to Foothills Lab 2
- 08:30 – 12:00 **Integrated III – Cities**
Session Chair: Paty Romero Lankao
- 08:30 – 10:00 Vulnerability in Urban Environments – Paty Romero Lankao, NCAR
- 10:00 – 10:30 Break
- 10:30 – 12:00 Infrastructure, Energy, and Cities – Sean Wilkinson, U. Newcastle, UK
- 12:00 – 01:30 Lunch
- 01:30 – 03:00 Uncertainties in Modeling Health Outcomes in Response to High Temperatures – Sharon Harlan, Arizona State University
- 03:00 – 03:30 Break
- 03:30 – 05:00 Uncertainty in Modeling Urban Areas at Global-to-local Scales – Keith Oleson and Andy Monaghan, NCAR
- 05:15 – 05:45 Buses back to hotel

TUESDAY August 5

- 08:00 – 08:30 Transportation to Foothills Lab 2
- 08:30 – 10:00 What We Did Not Cover in the Colloquium – C. Forest, H. Fowler, L. Mearns, and R. Wilby
- 10:00 – 10:30 Break
- 10:30 – 12:00 Project Work Sessions
- 12:00 – 01:30 Lunch
- 01:30 – 03:00 Project Work Sessions
- 03:00 – 03:30 Break
- 03:30 – 05:00 Project Work Sessions
- 05:15 – 05:40 Buses back to hotel

WEDNESDAY August 6

- 08:00 – 08:30 Transportation to Foothills Lab 2
- 08:30 – 12:00 **Project Presentations and Discussions**

Session Chairs: Fowler, Forest, Mearns, Michaels, Wilby

08:30 – 10:00	Projects 1-2
10:00 – 10:30	Break
10:30 – 12:00	Projects 3-4
12:00 – 01:30	Lunch
01:30 – 03:00	Projects 5-6
03:00 – 03:30	Break
03:30 – 05:00	Feedback about the Colloquium and the Future (all)
05:15 – 05:40	Buses back to hotel