

## **Conference on Applied Methods for Ag & Resource Economics** **A Festschrift for Richard E. Howitt**

**AGR Room, Walter E Buehler Alumni & Visitor's Center, UC Davis**  
**May 23-24, 2016**

### **Justification for the conference**

The conference is aimed at bringing together the vast body of work initiated by Richard Howitt and his students and collaborators in agricultural production and natural resource management modeling. The papers in the conference will outline the development and state-of-the art developments in key applications ranging from positive mathematical programming (PMP), water resource management, the application of information theoretic methods to environmental decision making, and other empirical work. The papers presented at the conference will form part of an edited book (TBD).

## **AGENDA**

### **Day One - Monday, May 23**

**08:45–09:00** Arrival/Distribution of meeting material, coffee

**09:00–09:15** Welcome of participants, introductions & agenda-setting  
*Siwa Msangi (IFPRI)*

### **Conference Opening**

**09:15–9:30** Welcome & reflections on Richard's contributions to ARE  
*Richard Sexton (Chair, Dept of ARE, UC Davis)*

**09:30–10:00** Richard's career and its influence on the ag & resource econ community  
*Siwa Msangi (IFPRI)*

### **Topic 1: Applied methods for Ag production modeling (Positive Mathematical Programming)**

In this session, we trace the origins and foundations of PMP methodology and examine the state-of-the-art in its application, and its usefulness in applied agricultural policy analysis

**10:00-10:30** Positive Mathematical Programming: theory, practice & ways forward  
*Pierre Mérel (ARE, UC Davis)*

**10:30-11:00** Applied ag sector modeling for California: CVPM & beyond  
*Steve Hatchett (CH2MHill)*

<b>11:00-11:30</b>	Applied methods for examining european ag policy <i>Bruno Henry de Frahan (Univ Louvain-La-Neuve)</i>
<b>11:30-12:00</b>	Modeling agricultural abatement cost <i>Cloe Garnache (Michigan State University)</i>
<b>12:00-12:30</b>	The role of soil quality in crop choice <i>Peter Berck (Univ of California at Berkeley)</i>
<b>12:30-13:00</b>	Q&A/discussion

*Lunch Break*

**Topic 2: Applied methods in water resource management**

In this session, we examine the body of work originated by Howitt and collaborators to deal with important water policy problems in California and elsewhere.

<b>14:00-14:30</b>	Hydro-economic modeling: the SWAP-CALVIN interface <i>Josue Medellin-Azuara (Center for Watershed Sciences, UC Davis)</i>
<b>14:30-15:00</b>	Water markets in the Western US <i>Kristiana Hansen (Univ Wyoming)</i>
<b>15:00-15:30</b>	Water quantity & quality problems in China <i>Qiuqiong Huang (Univ. Arkansas-Fayetteville)</i>

*Coffee Break*

<b>16:00-16:30</b>	Hydro-economic modeling in the Brazilian context <i>Marcello Torres (Univ of Brasilia)</i>
<b>16:30-17:00</b>	Spatial groundwater dynamics and resource management <i>Keith Knapp (UC Riverside)</i>
<b>17:00-17:30</b>	Q&A/discussion
<b>17:30-17:45</b>	Synthesis of today's proceedings & roadmap for tomorrow <i>Siwa</i>

\*\* **Adjourn** \*\*

<b>18:00-20:30</b>	<i>Evening reception and dinner</i>
--------------------	-------------------------------------

## Day Two - Tuesday, May 24

**09:00–09:10** Arrival and welcome

### **Topic 3: Information-theoretic and experimental methods in natural resources research**

In this session, look at the application of entropy-based methods to the calibration of empirical models, as well as to the solution of environment and resource management problems

**09:10-09:40** Experimental methods in water resource management & policy  
*Jonathan Kaplan (Calif State Univ, Sacramento)*

**09:40-10:10** Information-theoretic methods for parameterizing economic models  
*Siwa Msangi (IFPRI)*

**10:10-10:40** Entropy-based estimation of crop rotation dynamics  
*Richard Howitt (UC Davis)*  
*Duncan MacEwan (ERA Economics)*

**10:40-11:10** Experimental economics: applications for resource problems  
*Jim Murphy (Univ of Alaska)*

**11:10-11:40** Q&A/discussion

### *Lunch Break*

### **Topic 4: Ag & resource policy: The need for quantitative methods in decision-making**

In this session, we recognize the contributions that Richard Howitt and his collaborators have made to important agricultural and water policy problems in California and elsewhere in the world. We highlight the usefulness of the empirical methods applied to addressing the key problems facing policy makers and resource managers in different empirical contexts

**13:00-13:30** Applied analysis in designing California's water resource infrastructure  
*Jay Lund (Center for Watershed Sciences, UC Davis)*

**13:30-14:00** Applied analysis in designing California's water resource policy  
*Ellen Hanak (Public Policy Institute of California)*

**14:00-14:30** Applied methods in addressing issues in California's ag sector  
*Daniel Sumner (Ag Issues Center/ARE, UC Davis)*

**14:30-15:00** Q&A/discussion

### *Coffee Break*

## Closing session

**15:30-17:00** Reflections and comments from colleagues, collaborators & friends of Richard E Howitt

*Australia's Water – Mike Young*

*California Ag – Jay Noel*

*Resource Policy – John Antle*

*Teaching Resource Economics – Jim Wilen*

*Mentoring and Dissertation – Mimako Kobayashi*

*Reflections on Richard Howitt – Gordon Rausser, Rich Adams*

**17:00-17:15** Synthesis and next steps (Festschrift publication)

Vote of Thanks and Adjournment

*Siwa Msangi*

**\*\* Meeting Ends \*\***

## List of Participants

Name	Email contact
1. Siwa Msangi	<a href="mailto:s.msangi@cgiar.org">s.msangi@cgiar.org</a>
2. Duncan MacEwan	<a href="mailto:duncan@eraeconomics.com">duncan@eraeconomics.com</a>
3. Richard Howitt	<a href="mailto:howitt@primal.ucdavis.edu">howitt@primal.ucdavis.edu</a>
4. Pierre Merel	<a href="mailto:merel@primal.ucdavis.edu">merel@primal.ucdavis.edu</a>
5. Chloe Garnache	<a href="mailto:garnache@anr.msu.edu">garnache@anr.msu.edu</a>
6. Steve Hatchett	<a href="mailto:Stephen.Hatchett@ch2m.com">Stephen.Hatchett@ch2m.com</a>
7. Kristiana Hansen	<a href="mailto:Kristi.Hansen@uwyo.edu">Kristi.Hansen@uwyo.edu</a>
8. Jay Lund	<a href="mailto:jrlund@ucdavis.edu">jrlund@ucdavis.edu</a>
9. Josue Medellin-Azuara	<a href="mailto:jmedellin@ucdavis.edu">jmedellin@ucdavis.edu</a>
10. Qiuqiong Huang	<a href="mailto:qqhuang@uark.edu">qqhuang@uark.edu</a>
11. Keith Knapp	<a href="mailto:keith.knapp@ucr.edu">keith.knapp@ucr.edu</a>
12. Jonathan Kaplan	<a href="mailto:kaplanj@csus.edu">kaplanj@csus.edu</a>
13. John Antle	<a href="mailto:john.antle@oregonstate.edu">john.antle@oregonstate.edu</a>
14. Susan Capalbo	<a href="mailto:susan.capalbo@oregonstate.edu">susan.capalbo@oregonstate.edu</a>
15. Jay Noel	<a href="mailto:jnoel@calpoly.edu">jnoel@calpoly.edu</a>
16. Farhad Farnam	<a href="mailto:farhad@water.ca.gov">farhad@water.ca.gov</a>
17. Mike Young	<a href="mailto:mike.young@adelaide.edu.au">mike.young@adelaide.edu.au</a>
18. Ellen Hanak	<a href="mailto:hanak@ppic.org">hanak@ppic.org</a>
19. Marcello Torres	<a href="mailto:motorres@hotmail.com.br">motorres@hotmail.com.br</a>
20. James Murphy	<a href="mailto:murphy@uaa.alaska.edu">murphy@uaa.alaska.edu</a>
21. Greg Charaklis	<a href="mailto:charack@email.unc.edu">charack@email.unc.edu</a>
22. Dan Sumner	<a href="mailto:dan@primal.ucdavis.edu">dan@primal.ucdavis.edu</a>
23. Jim Wilen	<a href="mailto:wilen@primal.ucdavis.edu">wilen@primal.ucdavis.edu</a>
24. Mark Rosegrant	<a href="mailto:m.rosegrant@cgiar.org">m.rosegrant@cgiar.org</a>
25. Ali Taghavi	<a href="mailto:ATaghavi@rmcwater.com">ATaghavi@rmcwater.com</a>
26. Bruno Henry de Frahan	<a href="mailto:Bruno.Henrydefrahan@uclouvain.be">Bruno.Henrydefrahan@uclouvain.be</a>
27. Marc Carey	<a href="mailto:marc.carey@state.co.us">marc.carey@state.co.us</a>
28. Richard Adams	<a href="mailto:richard.adams@oregonstate.edu">richard.adams@oregonstate.edu</a>
29. Lee Garoyan	<a href="mailto:lgaroyan@att.net">lgaroyan@att.net</a>
30. Colin Carter	<a href="mailto:cacarter@ucdavis.edu">cacarter@ucdavis.edu</a>
31. Julian Alston	<a href="mailto:julian@primal.ucdavis.edu">julian@primal.ucdavis.edu</a>
32. Peter Berck	<a href="mailto:pberck@berkeley.edu">pberck@berkeley.edu</a>
33. Lorena Danessi	<a href="mailto:l.danessi@cgiar.org">l.danessi@cgiar.org</a>
34. Quirino Paris	<a href="mailto:fzparis@ucdavis.edu">fzparis@ucdavis.edu</a>
35. Dalia Ghanem	<a href="mailto:dghanem@ucdavis.edu">dghanem@ucdavis.edu</a>
36. Cynthia Lin Lawell	<a href="mailto:cclin@primal.ucdavis.edu">cclin@primal.ucdavis.edu</a>
37. L S Jarvis	<a href="mailto:jarvis@primal.ucdavis.edu">jarvis@primal.ucdavis.edu</a>
38. Mimako Kobayashi	<a href="mailto:mkobayashi@worldbank.org">mkobayashi@worldbank.org</a>
39. Xiaomeng Cui	<a href="mailto:ecui@ucdavis.edu">ecui@ucdavis.edu</a>
40. L J (Bees) Butler	<a href="mailto:butler@primal.ucdavis.edu">butler@primal.ucdavis.edu</a>