Environmental Science and Policy Program
2nd Annual Research Symposium

ENVIRONMENTAL RISK AND DECISION MAKING

October 10, 2014
9:00 AM - 5:30 PM
Kellogg Hotel and Conference Center

Environmental Science and Policy Program
Michigan State University

Student Organizing Committee

Zachary Piso - Philosophy & ESPP
Rebecca Bender - Biosystems Engineering
Sarah Murray - Urban and Regional Planning
Shannon Cruz - Communication

Sponsors

Environmental Science and Policy Program
The Graduate School
College of Communications Arts and Science
College of Engineering
College of Arts and Letters
College of Agriculture and Natural Resources
College of Social Science

Keynote Speakers

Dr. Joe Arvai, University of Calgary
Dr. Andrew Maynard, University of Michigan

Special Thanks

Dr. Bruno Takahashi - Journalism
Dr. Peilei Fan - Urban and Regional Planning
Dr. Thomas Voice - Civil and Environmental Engineering
Dr. Erin Dreelin - Fisheries and Wildlife
Dr. Paul Thompson - Philosophy

Symposium at a Glance

9:00 am – 9:05 am	Introductory Remarks: Dr. Vlad Tarabara, ESPP Associate Director	Room 104
9:05 am – 9:50 am	Keynote Speaker: Dr. Joe Arvai	Room 104
9:50 am – 10:00 am	Introduce new faculty	Room 104
10:10 am – 11:10 am	Student Presentations	Michigamme Conference Room 62
11:20 am – 12:20 pm	Poster Presentations	Garden Level Lobby
12:30 am – 2:00 pm	Lunch	Red Cedar A & B
2:10 pm – 3:10 pm	Student Presentations	Michigamme Conference Room 62
3:20 pm – 4:20 pm	Student Presentations	Michigamme Conference Room 62
4:30 pm – 5:30 pm	Keynote Speaker: Dr. Andrew Maynard	Room 104

Student Presentations

Students will give individual presentations in the assigned sessions. During the last fifteen minutes of each presentation sequence, presenters will be come together for an informal panel discussion of the session's theme. Please feel welcome to ask questions and share ideas.

10:10 - 11:10 am

Session A: Behavior and Decision Making — Michigamme Room

An Experimental Study of the Influence of Impression Management on Self-Reported Precautionary Behaviors Between Genders	Carrie Li
The Influence of Social Norms and Outcomes Expectations on Behavioral Decision Making: A Cross Cultural Study	Wuyu Liu
Community Epistemic Capacities in Structured Decision Making	Ian Werkheiser

Session B: Health and Environmental Risk — Conference Room 62

Self-Protection, Strategic Interactions & the Relative Endogeneity of Disease Risks	Carson Reeling
The Health Effects of Fine Particulate Air Pollution: Quasi-Experimental Evidence from Wildfires	Christopher Khawand
The Change of Industrial Structure and its Impact on Air Pollution: A Focus on Seoul, South Korea	Hogeun Park

11:20 am - 12:20 pm

Student Poster Presentations — Garden Level Lobby

2:10 - 3:10 pm

Session A: Decision Making and Water — Michigamme Room

Evaluating the Impact of Social Data Resolution on Environmental Justice Model Performance	Fariborz Daneshvar
Modeling Groundwater Sustainability in Michigan's Lowlands	Zachary Curtis
Link Between Self-Construal and Environmental Concern and Response to Green Ad Appeals: A Cross Cultural Study	Pradnya Joshi

2:10 - 3:10 pm

Session B: Agriculture and Climate Change - Conference Room 62

Drought Impacts on Wheat Production in the Canadian Prairie	Unai Miguel Andres
Uptake and Translocation of the Bacteriostatic Agent Triclocarban and Hydroponically Grown Pepper Plants (Capsicum annuum)	Khang Huynh
Wetland Sediment Phosphorus Flux in Response to Proposed Hydrologic Reconnection and Climate Warming	James Smit

3:20 - 4:20 pm

Session A: Agriculture and Development - Michigamme Room

Local Food Movement and the Value of Food Sovereignty in Development Programs	Samantha Noll
Assessing Human-Carnivore Conflict in Northern Laos	Jeong Eun Lim
Climate Mitigation and Adaptation Through Developing a Crop Envisaged to be "Underutilized" in Africa	Eva Kassara

Session B: Environmental Technology and RIsk Conference Room 62

Naturalized and Contested Bio-Energy: Constructing the Problematics and Nonproblematics of Renewable Energy Development	Weston Eaton
Intelligent Electrochemical Gas Analysis System for Distributed Real-Time Environmental Monitoring	Heyu Yin
Sounds Convey Metaphorical Meaning of Environmentally Friendly Products	Pradnya Joshi

Student Poster Presentations

11:20 am - 12:20 pm - Garden Level Lobby

Coupling Biogeochemistry and Sociology to Understand Groundwater Use and Inorganic Carbon Flux in Southwest Michigan Corn Fields	Bonnie McGill
Institutional Analysis on the Cooperation Dilemma of Rural Irrigation Management—A Case Study of the WUA in Q County of Fujian,China	Jingjing Cai
Sustainable Communication Practices On Campus: A Visual Communication Study	Carie Cunningham
Assessing Vulnerability of Fish to Extreme Dry Periods	Elaheh Esfahanian
Preliminary Assessment of the Developmental Response to Projected Climate Change Temperature on Two Species of Theraphosidae from Two Climate Regions	Brandon Rose
Application and Limitations of Stream Health Indices	Matthew Herman
Characterizing the Effects of Climate Change on Stream Health	Sean Woznicki
Modeling of Volatile Organic Compounds Emission from Materials Used in Passenger Vehicle Interiors	Shane Canaday
Enhancing Drought Tolerance in Common Bean, the Most Widely Consumed Legume: Shoot and Root Components of Tolerance	Jesse Traub
Renewable Energy Project Development Support Tools	Jason Smith
Developing a Fuzzy Group Decision-Making Framework for Managing Water Resources Risk	Reza Javidi Sabbaghian
A Perspective of Environmental Capacity Building: Exploring the Effect of Message Framing on Environmental Awareness and Decision-Making	Ran Duan, Anthony Van Witsen, and Patricia McKay
The Use of Remote Sensing to Assess Drought Impacts on Livestocks	Maria Melissa Rojas-Downing

Keynote Speakers

Dr. Joe Arvai

Joseph L. Arvai is the Svare Chair in Applied Decision Research in the Department of Geography, and Institute for Sustainable Energy, Environment, & Economy at the University of Calgary. He previously was a Professor of Judgment and Decision Making within the Department of Community Sustainability at Michigan State University. He served as Director to the MSU Environmental Science and Policy Program. He received his PhD at the University of British Columbia. His research focuses on advancing and testing theories in decision sciences that deal with how people make decisions – both individuals and in groups – largely in the absence of formalized decision support. He also works to develop and test decision aids that can be used by people to improve decision quality across a variety of contexts in cooperation with actual decision makers and set against the backdrop of real-world decision problems. Outside of his academic work, he has serves as an advisor to NASA, the EPA's Science Advisory Board, the National Academy of Sciences, and Natural Resources Canada. In 2006, he received the Chauncey Starr Award from the Society of Risk Analysis.

Dr. Andrew Maynard

Andrew Maynard is the NSF International Chair of Environmental Health Sciences at the University of Michigan School of Public Health, and Director of the University of Michigan Risk Science Center. As well as leading one of the top environmental health science departments in the United States, he has been instrumental in developing a unique center focused on making the science behind human health risks accessible to consumers and decision makers across multiple sectors. Maynard's research and professional activities focus primarily on the responsible development and use of emerging technologies – most notably nanotechnology and synthetic biology. Here, he has published widely, has testified before congressional committees, has served on National Academy panels and is a member of the World Economic Forum GlobalAgenda Council on Nanotechnology. He also writes a regular column for the journal Nature Nanotechnology on nanotechnology and responsible innovation. In addition, Maynard teaches risk assessment, science communication, environmental health policy, and entrepreneurial ethics, and lectures widely on technology innovation and responsible development. He is also a well-known science communicator, and works closely with and through conventional and new media to connect with audiences around the world on technology innovation and the science or risk.

environmental
science +
policy
PROGRAM

MICHIGAN STATE
UNIVERSITY