

ASIM ZIA, Ph.D.

Professor of Public Policy and Computer Science
Department of Community Development and Applied Economics &
Department of Computer Science

Director, Institute for Environmental Diplomacy and Security (www.uvm.edu/ieds)
Co-Director, Social Ecological Gaming and Simulation Lab (www.uvm.edu/segs)

University of Vermont

Morrill 208E, 146 University Place, Burlington VT 05405

Phone: 802-656-4695; Fax: 802-656-4447

Email: asim.zia@uvm.edu; Webpage: <http://www.uvm.edu/~azia>

ACADEMIC TRAINING

- **Ph.D. Public Policy, Georgia Institute of Technology, Atlanta GA (2004)**
- **Advanced Graduate Coursework, Ecological Economics, Ruprecht-Karls University of Heidelberg, F. R. Germany (1997-1999)**
- **M.A. Philosophy (Logic and Philosophy of Science), University of the Punjab at Lahore, Pakistan (1996)**
- **B.A. Philosophy and Mass Communications, University of the Punjab at Lahore, Pakistan (1991)**
- **Undergraduate Coursework, Mechanical Engineering, University of Engineering and Technology at Lahore, Pakistan (1988-90)**

ACADEMIC POSITIONS

07/2018 – Tenured **Professor**, Department of Community Development and Applied Economics, University of Vermont, Burlington VT (Primary Appointment)

07/2018 – Tenured **Professor**, Department of Computer Science, University of Vermont, Burlington VT (Secondary Appointment)

07/2013 – 06/2018 **Associate Professor**, Department of Community Development and Applied Economics, University of Vermont, Burlington VT (Primary Appointment)

- 07/2013 – 06/2018 **Associate Professor**, Department of Computer Science, University of Vermont, Burlington VT (Secondary Appointment)
- 08/2008 – 06/2013 **Assistant Professor**, Department of Community Development and Applied Economics, University of Vermont, Burlington VT (Primary Appointment)
- 08/2011 – 06/2012 **Assistant Professor**, Department of Computer Science, University of Vermont, Burlington VT (Secondary Appointment)
- 08/2006 – 06/2008 **Assistant Professor**, Department of Environmental Studies, San Jose State University, San Jose CA (Primary Appointment)
- 08/2004 – 07/2006 **Post-Doctoral Scientist**, Institute for the Study of Society and Environment, National Center for Atmospheric Research, Boulder CO
- 05/2004 – 07/2004 **Graduate Research Assistant** School of Public Policy, Georgia Institute of Technology, Atlanta GA
- 08/2000 – 05/2004 **Graduate Research Assistant** Air Quality Laboratory, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta
- 08/1997 – 03/1998 **Independent Researcher** Heinrich Boell Foundation, Lahore, Pakistan

ADMINISTRATIVE POSITIONS (Selected)

- 07/2016 – Present **Associate Project Director, “Basin Resilience to Extreme Events,” Vermont EPSCOR – Experimental Program to Stimulate Competitive Research**, University of Vermont
- 08/2014 – Present **Co-Director, Social Ecological Gaming and Simulation Lab**, University of Vermont
- 06/2013 – Present **Director, Institute for Environmental Diplomacy and Security**, University of Vermont

- 08/2014 – 06/2016 **Associate State Director, Vermont EPSCOR – Experimental Program to Stimulate Competitive Research**, University of Vermont
- 08/1999 – 08/2000 **Section Officer (USA, Germany, Australia, New Zealand)** Economic Affairs Division, Ministry of Finance and Economic Affairs, Federal Government of Pakistan, Islamabad
- 02/1995 – 08/1997 **Section Officer (Germany)** Economic Affairs Division, Ministry of Finance and Economic Affairs, Federal Government of Pakistan, Islamabad
- 07/1995 – 06/1996 **Special Coordinator (Aid-to-Pakistan Consortium)** Privatization of Kot-Addu Thermal Power Plant, Economic Affairs Division, Ministry of Finance and Economic Affairs, Federal Government of Pakistan, Islamabad
- 06/1994 – 02/1995 **Probationary Officer** 25th Office Management Group, Secretariat Training Institute, Federal Government of Pakistan, Islamabad
- 10/1993 – 06/1994 **Probationary Officer**, 21st Commons Group, Civil Services Academy, Federal Government of Pakistan, Lahore

GRANTS AWARDED

- 09/2017-08/2018 **Co-Principal Investigator, SCC-Planning: Smart Connections for Conserving and Catalyzing Cultural Community Resources.** National Science Foundation. Total Award: US \$ 100,000. With Rizzo (PI), Porter (Co-PI), Dewoolkar (Co-PI), Huston (Co-PI)
- 06/2016 – 05/2021 **Science Investigator, Resilience to Extreme Events in Social Ecological Systems of the Lake Champlain Basin (Basin Resilience to Extreme Events, BREE) RII Track-1.** National Science Foundation-EPSCOR. Total Award: US\$ 20,000,000. With Van Houten (PI)
- 06/2017 – 12/2019 **Senior Personnel, Risk Perception in Provision of Aquatic Ecosystem Services.** NSF-SESYNC. Total Award: US\$ 100,000. With Webster (PI)
- 06/2016 – 12/2017 **Principal Investigator, Resilience and Control in Coupled Food Energy and Water Systems.** UVM Office of Vice President for Research. Total Award: US\$ 5,000.00.

- 04/2015-03/2019 ***Co-Principal Investigator, A Human Behavioral Approach to Reducing the Impact of Livestock Pest or Disease Incursions of Socio-Economic Importance.*** USDA-AFRI. Total Award: US \$7.4 million. With Smith (PI), Koliba (Co-PI) and Merrill (Co-PI)
- 06/2012 – 05/2015 ***Co-Principal Investigator, Climate Adaptation and Mitigation in the Lake Champlain Basin of Vermont.*** USDA via UVM's Food System Spire. Total Award: US \$ 300,000. With Mendez (PI)
- 08/2013 – 07/2016 ***Science Investigator, North-East Water Resources Network.*** NSF-EPSCOR. Total Award: US \$ 6,000,000. With Van Houten (PI)
- 05/2013 – 04/2016 ***Co-Principal Investigator, Integrating Human Risk Perception of Global Climate Change into Dynamic Earth System Models.*** NSF-SESYNC and NSF-NIMBIOS. US \$ 150,000. With Beckage (PI), Gross (Co-PI)
- 09/2013 – 08/2015 ***Principal Investigator, Sustainable Small-scale Bioelectricity Systems in Rural East Africa.*** Gund Institute of Ecological Economics. Total Award: US\$ 9,980.
- 08/2013 – 07/2018 ***Senior Personnel, Economics for the Anthropocene: Regrounding the Human-Earth Relationship.*** Social Science and Humanities Research Council. Total award \$2,431,000. With Brown, P. (PI)
- 07/2012 – 07/2014 ***Co-Principal Investigator, Strategic Response to Energy-Related Security Threats.*** US-DoD. Total Award \$172,973. With Ali, S. (PI)
- 04/2012 – 12/2013 ***Principal Investigator, Integrating Sustainability within Transport Asset Management Processes: Governance of Intergovernmental Decision Making on Prioritizing V-Trans STIP Projects, 2000-2035.*** US Department of Transportation through UVM-TRC. Total Award: US\$ 39,005 (excluding cost share).
- 02/2012 – 06/2012 ***Principal Investigator, Understanding Cross-Scale Dynamics in Social Ecological Systems: Integrative Analysis of Multi-Level Institutional Mechanisms Governing Tropical Deforestation and Forest Degradation in Peru, Mozambique and Indonesia.*** Gund Institute of Ecological Economics Collaborative Grant. Total Award: US\$ 15,000.

- 09/2011 – 08/2017 **Senior Personnel, IGERT Graduate Traineeships: Smart Grid, Human Behavior and Policy.** National Science Foundation-IGERT. Total Award: US\$ 3,000,000. With Marshall, J. (PI)
- 09/2011 – 09/2016 **Science Investigator, Adaptation to Climate Change in the Lake Champlain Basin: New Understanding through Complex Systems Modeling.** National Science Foundation-EPSCOR. Total Award: US\$ 20,000,000. With Van Houten (PI)
- 10/2011 – 09/2013 **Science Investigator, Improving Connectivity between the University of Vermont and the Vermont State Colleges for STEM Research and Education.** National Science Foundation-EPSCOR. Total Award: US\$ 100,000. With Van Houten (PI)
- 07/2010 – 06/2012 **Co-Principal Investigator, Development of a Complex Governance Systems Research and Modeling Initiative.** UVM's Jeffords Center for Policy Research. Total Award: US\$ 100,000. With Koliba (PI)
- 06/2010 – 01/2011 **Principal Investigator, Navigating Trade-Offs in Complex Systems.** US Department of Transportation through UVM's Transportation Research Center. Total Award: US\$ 11,000
- 05/2009 – 10/2010 **Co-Principal Investigator, Advancing Conservation in Social Context: Working in a World of Trade-Offs** MacArthur Foundation. Total Award: US\$ 6,000,000. UVM Sub-award: US\$ 22,000. With McSchane (PI), Brosius (PI) and Kinzig (PI)
- 08/2007 – 12/2008 **Co-Principal Investigator, Carsharing and Carbon Dioxide Emission Reduction Across Density and Transit Quality Gradients in the U.S.** Mineta Transportation Institute, San Jose State University, San Jose CA. Total Award: US\$ 50,000. With Shaheen (PI)
- 05/2007 – 08/2008 **Principal Investigator, A Multiple Criteria Evaluation of Green House Gas (GHG) Emission Reduction Policies in the Transportation Sector of California** Mineta Transportation Institute, San Jose State University, San Jose CA. Total Award: US\$ 5,000.
- 10/2004 – 05/2008 **Co-Principal Investigator, Ecological Boundary Setting in Mental and Geophysical Models** Human and Social Dynamics (HSD) Program, National Science Foundation. Total Award: US\$ 625,000. With Norton (PI)

08/1997 – 03/1998 **Principal Investigator, Development Cooperation between Pakistan and Germany** Heinrich Boell Foundation, Lahore, Pakistan. Total Award: Deutsche Marks 10,000

PUBLICATIONS

- **Journal Articles**

41. Beckage, Brian, Louis Gross, Katherine Lacasse, Eric Carr, Sara Metcalf, Jonathan Winter, Peter Howe, Nina Fefferman, Travis Franck, **Asim Zia**, Ann Kinzig, and Forrest Hoffman (2018) Linking models of human behavior and climate alters projected climate change *Nature Climate Change* 8: 79-84. <https://doi.org/10.1038/s41558-017-0031-7>
40. **Asim Zia**, Chris Koliba (2017) Dynamics of Intergovernmental Networks: Harnessing Agent Based Modeling Simulations for Resilient Infrastructures. *Journal of Policy and Complex Systems* 3(2): 49-71.
39. Shang Wu, **Asim Zia**, Mengyuan Ren, Kent Messer (2017) Simulating Heterogeneous Farmer Behaviors under Different Policy Schemes: Integrating Economic Experiments and Agent-Based Modeling. *Journal of Policy and Complex Systems* 3(2): 164-188.
38. Rachel Schattman, Ernesto Mendez, Scott Merrill, **Asim Zia** (2017) A mixed methods approach to understanding farmer and technical service provider perceptions of climate change and adaptation in Vermont, United States. *Agroecology and Sustainable Food Systems*. Online first: <http://dx.doi.org/10.1080/21683565.2017.1357667>
37. Sarah Coleman, Stephanie Hurley, Christopher Koliba, **Asim Zia** (2017) Crowdsourced delphis: Designing solutions to complex environmental problems with broad stakeholder participation. *Global Environmental Change* 45: 111-123. <https://doi.org/10.1016/j.gloenvcha.2017.05.005>
36. Steve Scheinert, **Asim Zia**, Christopher Koliba, and Scott Merrill (2017) Growing Collaborations: Forecasting Changes in Partnership Networks using a Bottom-Up Approach. *Journal of Policy and Complex Systems* 3(1) doi: 10.18278/jpcs.3.1.1
35. A.R. Egan, W.S. Keeton, C.M. Danks, I. Soloviy, **A. Zia** (2017) Forest carbon projects in the Ukrainian Carpathians: an assessment of potential community impacts and benefits. *Annals of Forest Research* 60(1)

34. **Zia, Asim**, Arne Bomblies, Andrew W. Schroth, Christopher Koliba, Peter D.F. Isles, Yushiou Tsai, Ibrahim N. Mohammed, Gabriela Bucini, Patrick Clemins, Scott Turnbull, Morgan Rodgers, Ahmed Hamed, Brian Beckage, Jonathan Winter, Carol Adair, Gillian L. Galford, Donna Rizzo and Judith Van Houten (2016) Coupled impacts of climate and land use change across a river-lake continuum: insights from an integrated assessment model of Lake Champlain's Missisquoi Basin, 2000-2040. *Environmental Research Letters* **11**, Number 11. Available online at <http://iopscience.iop.org/article/10.1088/1748-9326/11/11/114026>
33. Koliba, C., **Zia, A.**, Schroth, A., Bomblies, A., Van Houten, J., and Rizzo, D. (2016) The Lake Champlain Basin as a Complex Adaptive System: Insights from the Research on Adaptation to Climate Change ("RACC") Project. *Vermont Journal of Environmental Law* **17**(4): 533-563
32. Conner, D., Miller, J., **Zia, A.**, Wang, Q., and Darby, H. (2016) Conjoint Analysis of Farmers' Response to Conservation Incentives. *Sustainability* **8**: 684; doi 10.3390/su8070684
31. Koliba, C., Wiltshire, S., Scheinert, S., Turner, D., **Zia, A.**, Campbell, E. (2016) The critical role of information sharing to the value proposition of a food systems network. *Public Management Review*. Online First. DOI: 10.1080/14719037.2016.1209235
30. James, T. A., Kreiger, L. M., **Zia, A.**, Gaalema, D., Jones, C., (2016) A Practical Framework for Incentive-Based Cancer Prevention. *Population Health Management*. April 2016 ahead of print. doi:10.1089/pop.2016.0007
29. Schulz, Anna, **Asim Zia**, Christopher Koliba (2017) Adapting Bridge Infrastructure to Climate Change: Institutionalizing Resilience in Intergovernmental Transportation Planning Processes in the Northeastern United States. *Mitigation and Adaptation Strategies for Global Change* **22**(1): 175-198
28. Littenberg, B., Bonnell, L. N., LeBruin, A. S., Lubetkin, D. A., Troy, A. R., & **Zia, A.** (2015). The Relationship Between Access to Natural Environmental Amenities and Obesity. *Cureus*, **7**(11).
27. Tsai, Yushiou, **Asim Zia**, Christopher Koliba, Justin Guilbert, Gabriela Bucini, Brian Beckage (2015). An Interactive Land Use Transition Agent-Based Model (ILUTABM): Endogenizing Human-Environment Interactions at Watershed Scales. *Land Use Policy* **49**: 161-176.

26. **Zia, A.**, Koliba, C. (2015) The Emergence of Attractors Under Multi-level Institutional Designs: Agent-Based Modeling of Intergovernmental Decision Making for Funding Transportation Projects. *AI & Society: Knowledge, Culture and Communication*. **30**: 315-331. DOI 10.1007/s00146-013-0527-2
25. Hamed, Ahmed; Alexa Ayer; Eric Clark; Erin Irons; Grant Taylor; **Asim Zia** (2015) Measuring Climate Change on Twitter Using Google's Algorithm: Perception and Events. *International Journal of Web Information Systems*: **11**(4). <http://dx.doi.org/10.1108/IJWIS-08-2015-0025>
24. Fernandez, Luca, Chris Koliba, **Asim Zia**, Katherine Cheung, Richard Solomon, Chris Jones (2015) System Dynamics Modeling can be Leveraged to Predict Critical Care Pathways and Costs for End Stage Renal Disease (ESRD): US Population to 2020. *Journal of Health Economics and Outcomes Research*, **3**(1): 24-33
23. Scheinert, Steve, Christopher Koliba, Stephanie Hurly, Sarah Coleman, and **Asim Zia** (2015) The Shape of Watershed Governance: Locating Network Boundaries within Multiplex Networks. *Complexity, Governance and Networks*, **2**(1): 65-82. DOI 10.7564 15-CGN25
22. Novak, David, Chris Koliba, **Asim Zia**, Matt Tucker (2015) Evaluating the outcomes associated with an innovative change in a state-level transportation project prioritization process: A case study of Vermont. *Transport Policy* **42**: 130-143
21. **Zia, Asim**, Courtney Hammond Wagner (2015) Mainstreaming Early Warning Systems in Development and Planning Processes: Multi-level implementation of Sendai Framework in Indus and Sahel. *International Journal of Disaster Risk Science* **6**(2): 189-199. DOI 10.1007/s13753-015-0048-3
20. **Zia, Asim**, Christopher Koliba, Jack Meek, Anna Schulz (2015) Scale and Intensity of Collaboration as Determinants of Performance Management Gaps in Polycentric Governance Networks: Evidence from a National Survey of MPOs. *Policy & Politics: Advancing Knowledge in Public and Social Policy* **43**(3): 367-390
19. **Zia, Asim**, Paul Hirsch, Hoang Van Thang, Tran Chi Trung, Sheila O'Connor, Thomas McShane, Pete Brosius, Bryan Norton (2015) Eliciting Inter-Temporal Value Trade-Offs: A Deliberative Multi-Criteria Analysis of Vietnam's Bai Tu Long National Park Management Scenarios. *IAFOR Journal of Sustainability, Energy and the Environment*. **2**(1): 41-62. <http://iafor.org/archives/journals/sustain-journal/v2n1/IJSEEv2n1a3.pdf>

18. Koliba, C., Berman, M., Brune, N., **Zia, A.** (2014) The Saliency and Complexity of Building, Regulating, and Governing the Smart Grid: Lessons from a Statewide Public-Private Partnership. *Energy Policy* **74**: 243-252
[doi:10.1016/j.enpol.2014.09.013](https://doi.org/10.1016/j.enpol.2014.09.013)
17. Koliba, C., Reynolds, A., **Zia, A.**, and Scheinert, S. (2014). Isomorphic Properties of Network Governance: Comparing Two Watershed Governance Initiatives in the Lake Champlain Basin Using Institutional Network Analysis. *Complexity, Governance and Networks*. **1**(2): 99-118. DOI: 10.7564/14-CGN12
16. **Zia, A.**, Kauffman, S., Koliba, C., Beckage, B., Vattay, G., Bomblies, A. (2014) From the Habit of Control to Institutional Enablement: Re-envisioning the Governance of Social-Ecological Systems from the Perspective of Complexity Sciences. *Complexity, Governance and Networks*. **1**(1): 79-88. DOI: 10.7564/14-CGN4
15. **Zia, Asim**, Bryan Norton, Sara Metcalf, Paul Hirsch, Bruce Hannon (2014) Spatial Discounting, Place Attachment and Environmental Concern: Toward an Ambit-Based Theory of Sense of Place. *Journal of Environmental Psychology*. **40**: 283-295. DOI: 10.1016/j.jenvp.2014.08.001
14. Hirsch, Paul, Pete Brosius, Sheila O'Connor, **Asim Zia**, Meredith Welch-Devine, Juan Luis Dammert, Jennifer L. Rice, Zachary R. Anderson, Sarah Hitchner, John Schelhas, Thomas O. McShane (2013) Navigating Complex Trade-Offs in Conservation and Development: An Integrative Framework. *Issues in Integrative Studies* **31**: 99-122
13. **Zia, A.**, Kauffman, S., Niiranen, S. (2012) The Prospects and Limits of Algorithms in Simulating Creative Decision Making. *Emergence: Complexity and Organization (E:CO) – An International Transdisciplinary Journal of Complex Social Systems* **14** (3): 89-109.
12. **Zia, A.** (2012) Land Use Adaptation to Climate Change: Economic Damages from Land-Falling Hurricanes in the Atlantic and Gulf States of the USA, 1900-2005. *Sustainability* **4**: 917-932.
11. **Zia, A.**, and Glantz, M. (2012) Risk Zones: Comparative Lesson Drawing and Policy Learning from Flood Insurance Programs. *Journal of Comparative Policy Analysis: Research and Practice* **14**(2): 143-159.
10. **Zia, A.**, Paul Hirsch, Alexander N. Songorwa, David R. Mutekanga, Sheila O'Connor, Thomas McShane, Pete Brosius, Bryan Norton (2011) Cross-Scale Value Trade-Offs in Managing Social-Ecological Systems: The Politics

- of Scale in Ruaha National Park, Tanzania. *Ecology and Society* **16**(4):7.
<http://dx.doi.org/10.5751/ES-04375-160407>
9. **Zia, A.**, and Koliba, C. (2011) Accountable Climate Governance: Dilemmas of Performance Management Across Complex Governance Networks. *Journal of Comparative Policy Analysis: Research and Practice* **13**(5): 479-497.
 8. Koliba, C., Mills, and **Zia, A.** (2011) Accountability in Governance Networks: An Assessment of Public, Private, and Nonprofit Emergency Management Practices Following Hurricane Katrina. *Public Administration Review* **71**(2): 210-220.
 7. Hirsch, P. D., Adams, B., Brosius, J. P., **Zia, A.**, Bariola, N., and Dammert, J. L. (2011) Acknowledging Conservation Trade-offs and Embracing Complexity. *Conservation Biology* **25**: 259-264.
 6. Koliba, C., Campbell, E. and **Zia, A.** (2011) Performance Measurement Considerations in Congestion Management Networks: Aligning Data and Network Accountability. *Public Performance Management Review*. **34**(4): 520-548.
 5. Koliba, C., **Zia, A.**, and Lee, B. H.Y. (2011) Governance Informatics: Managing the Performance of Inter-Organizational Governance Networks. *The Innovation Journal* **16**(1), Article 3.
 4. **Zia, A.**, Todd, A. M. (2010) Evaluating the Effects of Ideology on Public Understanding of Climate Change Science: How to Improve Communication Across Ideological Divides? *Public Understanding of Science* **19**(6): 743-761.
 3. Koliba, C., and **Zia, A.** (2009) Dispelling the Myth of the Invisible Hand: An Argument for Democratically Legitimate Inter-Organizational Governance Networks. *Administrative Theory & Praxis* **31**(2): 417-423
 2. **Zia, A.**, B. G. Norton, D. S. Noonan, M. O. Rodgers, and L. DeHart-Davis (2006) A Quasi-Experimental Evaluation of High Emitter Non-Compliance and its Impact on Vehicular Tailpipe Emissions in Atlanta, 1997-2001. *Transportation Research Part D: Transport and Environment* **11**(1): 77-96
 1. **Zia, A.** (2006) Cooperative and Non-Cooperative Decision Behaviors in Response to the Inspection and Maintenance Program in the Atlanta Airshed, 1997-2001: The APPAM Ph.D. Dissertation Award. *Journal of Policy Analysis and Management* **25**(3): 773-775
- **Book Chapters**

14. Chris Koliba, **Asim Zia** (Forthcoming) Using Agent-Based Models to Study Network and Collaborative Governance. In Voets, J. Keast, R. and Koliba, C. (editors). *Researching Networks and Collaboration in the Public Sector: A Guide to approaches, methodologies, and analytics* (Routledge)
13. **Asim Zia** (2018) Adaptive Management in Social Ecological Systems: Taming the Wicked? In Int. Library of Environm., Vol. 26, Sahotra Sarkar and Ben A. Minteer (Eds): *A Sustainable Philosophy - The Work of Bryan Norton*, Springer. ISBN 978-3-319-92596-7, 432683_1_En (11)
12. **Zia, Asim**, Christopher Koliba, Jack Meek, Anna Schulz (2018) Scale and Intensity of Collaboration as Determinants of Performance Management Gaps in Polycentric Governance Networks: Evidence from a National Survey of MPOs. In Chris Ansell and Jacob Torfing (Ed.) *How Does Collaborative Governance Scale? New Perspectives in Policy & Politics*. Sarah Ayers and Matt Flinders (Series Editors). Policy Press, University of Bristol, UK. Pages 65-94.
11. Ali, Saleem; Asim Zia (2016) Transboundary Data Sharing and Resilience Scenarios: Harnessing the Role of Regional Organizations for Environmental Security. In Zafar Adeel, Robert Wirsing (Ed.) *Imagining Indus: Overcoming Water Insecurity in the Indus Basin*. Heidelberg, Springer.
10. Hamed, Ahmed Abdeen; Asim Zia (2015) Mining Climate Change Awareness on Twitter: A PageRank Network Analysis Method. In *Computational Science and Its Applications – ICCSA 2015 Volume 9155 of the series Lecture Notes in Computer Science* (pp. 16-31). Heidelberg, Springer. [Online: http://link.springer.com/chapter/10.1007%2F978-3-319-21404-7_2]
9. Koliba, Chris; **Asim Zia** (2015) Educating Public Managers and Policy Analysts in an Era of Informatics. In Marijn Janssen, Maria A. Wimmer, Ameneh Deljoo (Ed.) *Policy Practice and Digital Science: Integrating Complex Systems, Social Simulation and Public Administration in Policy Research* (pp. 15-34). Heidelberg, Springer.
8. Schattman, R., Mendez, V. E., Westdijk, K., Caswell, M., Conner, D., Koliba, C., Zia, A., Hurley, S., Adair, E.C., Berlin, L., & Darby, H. (2015). Vermont agricultural resilience in a changing climate: A transdisciplinary and participatory action research (PAR) process. In N. Benkeblia (Ed.), *Agroecology, ecosystems, and sustainability* (pp. 326–346). Boca Raton, FL: CRC Press/Taylor & Francis.

7. **Zia, A.**, Kelman, I., Glantz, M. (2015) Arctic Melting Tests the United Nations Convention on the Law of the Sea. In *Diplomacy on Ice: Energy and the Environment in the Arctic and Antarctic*. Editors: S. Ali and R. Pincus. Yale University Press, New Haven CT, Pages 128-140
6. Koliba, C., **Zia, A.** (2015) Governance Informatics: Using computer simulation models to deepen situational awareness and governance design considerations. In *Governance in the Information Era: Theory and Practice of Policy Informatics*. Editor: E. Johnston. Rutledge Press, London UK, Pages 189-212
5. **Zia, A.**, Hameed, K. (2014) Politics of Conflict in Pakistan's Tribal Areas: Vulnerability Reduction in Violence-Prone Complex Adaptive Systems. In *Middle East Conflicts & Reforms*, edited by Mohammed M. Aman and M. J. Parker Aman. Washington, DC: Policy Studies Organization/Westphalia Press, Pages 223-236. ISBN-13:978-1941472002
4. Beckage, B., Kauffman, S., **Zia, A.**, Koliba, C. and Gross, L. J. (2013) More complex complexity: exploring the nature of computational irreducibility across physical, biological, and human social systems. In *Irreducibility and Computational Equivalence: Wolfram Science 10 Years After the Publication of A New Kind of Science*.
3. **Zia, A.**, Koliba, C., Tian, Y.(2012). Governance Network Analysis: Experimental Simulations of Alternate Institutional Designs for Intergovernmental Project Prioritization Processes. In L. Gerrits & P.K. Marks (Eds.), *COMPACT I: Public Administration in Complexity*. Litchfield Park: Emergent Publications. Pages 144-165.
2. Koliba, C., **Zia, A.**, (2012) "Complexity Friendly" Meso-Level Public Administration and Policy Studies Frameworks for Modeling Complex Governance Systems: Challenges and Opportunities for a Meta-Theoretical Research Program. In L. Gerrits & P.K. Marks (Eds.), *COMPACT I: Public Administration in Complexity*. Litchfield Park: Emergent Publications. Pages 119-136.
1. Koliba, C., Meek, J., and **Zia, A.** (2010) Gordian Knot or Integrated Theory? Critical Conceptual Considerations for Governance Network Analysis. In *The Future of Governance: Selected Papers from the Fifth Transatlantic Dialogue on Public Administration*. Taco Brandsen and Marc Holzer (Editors). Published by National Center for Public Performance (NCPPE), Newark NJ. Pages 277-300.

- **Books**

3. **Zia, A.** (2013) *Post-Kyoto Climate Governance: Confronting the Politics of Scale, Ideology and Knowledge*. Routledge, London UK
2. Koliba, C., Meek, J., and **Zia, A** (2010) *Governance Networks in Public Administration and Public Policy*. CRC Press, Boca Raton FL
1. **Zia, A.** (1999) *Can Beggars Be Choosers: a Critique of Pak-German Developmental Cooperation*. Heinrich Boell Foundation. Lahore, Pakistan/ Berlin, Germany

- ***Published Abstracts, Papers in Conference Proceedings, Invited Papers, Electronic Databases and Technical Reports***

14. Zia, A., C. Koliba, M. Tucker (2017) Intergovernmental dynamics of transportation planning: Why some towns attract more federal funding than others? *Proceedings of the 35th International Conference of the System Dynamics Society*.
13. Zia, A., M. Hussain, K. Hameed (2017) Pakistan. In M. H. Glantz (editor) *El Nino Ready Nations and Disaster Risk Reduction (DRR)*. A Report for US-AID and NOAA
12. Zia, A., C. Koliba (2013) Agent-Based Modeling of Intergovernmental Decision Making: How Institutional Rules Generate Basins of Attraction in Funding Transportation Projects. *Transportation Research Board 92nd Annual Meeting*. Washington DC, January 2013. Paper No. 13-2153.
11. Zia, A., Koliba, C., De Pinto, T. (2012) Multi-Criteria Evaluation of Metropolitan Transportation Planning Scenarios: Assessing Trade-Offs Between Business-As-Usual and Alternate Sustainable Community Designs. *Transportation Research Board 2012 Annual Meeting*, Washington DC, January 2012. Paper no. 12-2461.
10. Zia, A., Koliba, C., Campbell, E., Lee, B. H. Y, Meek, J., Colangelo, D. (2011) Prioritization of Performance Measures for MPOs: Understanding the Effects of Contextual Complexity and Collaborative Capacity from a National-Level Survey. *Transportation Research Board 2011 Annual Meeting*, Washington DC, January 2011. Paper no. 11-2913.
9. Zia, A. (2009) Can South Asia “Leapfrog” into the Future? Policy Options to Sustain Low Carbon Intensity Amidst Rising Per Capita Income. *Energy Network*, 2: 6-9
8. Zia, A. (2009) Mobile Emissions. *Global Reference on the Environment, Energy, and Natural Resources Online Collection*. Detroit: Gale. Public Trial

Site. 28 Aug. 2009 <<http://find.galegroup.com/grnr/start.do?prodId=GRNR>>

7. Zia, A. (2008) An Ambit-Based Activity Model for Evaluating Green House Gas Emission Reduction Policies. *Mineta Transportation Institute and California Department of Transportation*. Available online at www.dot.ca.gov/newtech/researchreports/reports/2008/an_ambit-based_activity_model.pdf
6. Zia, A., and Arenstein, W. (2007) An Evaluation Framework for Indirect Source Review (ISR) Programs: Current Controversies and Future Prospects. *Proceedings of the Air & Waste Management Association's 100th Annual Conference & Exhibition*, Pittsburgh PA, Paper no. 801
5. Zia, A., R. Morss, and J. Lazo (2005) Societal Value of Improved Quantitative Precipitation Forecasts: A Synthesis. *Proceedings of the First THORPEX/WMO International Science Symposium, Montréal, Canada*. World Meteorological Organization, Geneva
4. Zia, A. (2005) An Emission-Inventory Based Methodology to Evaluate Vehicle Inspection and Maintenance Programs: A Case-Study of the Atlanta Airshed 1997-2001. *Proceedings of the Air & Waste Management Association's 98th Annual Conference & Exhibition*, Minneapolis MN. Paper no. 1310. Also appeared in *Transportation Research Board's 85th Annual Meeting* as paper no. 06-1292. Available on CD-ROMs
3. Zia, A., M. O. Rodgers, D. S. Noonan, B. G. Norton (2003) Cooperative and Non-cooperative Behavioral Strategies: An Evaluation of the Impact of High-emitting Vehicle Owners on Vehicular Emissions in the Atlanta Airshed. *Submitted to Air Protection Branch, Georgia Environmental Protection Division*. Atlanta
2. Zia, A. (1999) Annual Assistance from Aid-to-Pakistan Consortium. *Submitted to Economic Affairs Division, Ministry of Finance and Economic Affairs*. Islamabad, Pakistan
1. Zia, A. (1995, 1996, 1997) A Review of Annual Bilateral Negotiations between Pakistan and Germany. *Submitted to Economic Affairs Division, Ministry of Finance and Economic Affairs*. Islamabad, Pakistan

ARTICLE PRESENTATIONS IN NATIONAL AND INTERNATIONAL CONFERENCES

- **Oral** (* signifies presenter)

94. Asim Zia*, Stuart Kauffman (2018) The Limits of Predictability in Predefining Phase Spaces of Dynamic Social Ecological Systems: “Command and Control” Versus “Complex Systems” Based Policy Design Approaches to Conserve Tropical Forests, Conference on Complexity and Policy Studies, April 18-20, Washington DC.
93. Christopher Koliba*, Asim Zia, Scott Merrill (2018) Using Agent-Based Models to Prototype Governance and Policy Designs, XXII IRSPM Annual Conference 2018, April 11-13, Edinburgh UK
92. Asim Zia, Christopher Koliba* (2018) Designing Intergovernmental Networks and Hierarchies: Harnessing Agent Based Models as Governance and Policy Analytics Platforms, XXII IRSPM Annual Conference 2018, April 11-13, Edinburgh UK
91. Christopher Koliba*, Scott Merrill, Asim Zia (2018) Influence of Risk Communication on Livestock Biosecurity Protocol Adoption Across Two Gaming Platforms: Implications for Tactical and Operational Decision Making, XXII IRSPM Annual Conference 2018, April 11-13, Edinburgh UK
90. Christopher Koliba*, Patrick Bitterman, Asim Zia (2018) Overcoming Fragmented Governance in Complex Water Systems. Annual Meeting of American Society for Public Administration (ASPA), March 9-13, Denver CO.
89. Steve Scheinert*, Christopher Koliba, Asim Zia (2018) Measuring Democratic, Market and Administrative Accountability Mechanisms in Complex Watershed Governance Networks. Annual Meeting of American Society for Public Administration (ASPA), March 9-13, Denver CO.
88. Asim Zia*, Michael Widener, Sara Metcalf and Chris Koliba. 2017. Modeling Voting Decisions in Governance Networks for Agents with Heterogeneous Mental Models and Alternate Network Structures. The Computational Social Science Society of the Americas' annual CSS 2017 conference. Santa Fe, NM. October 20-22, 2017
87. Asim Zia*, Scott Merrill, Chris Koliba, Susan Moegenberg, Serge Wiltshire, Eric Clark, Gabriella Buccini, Julie Smith. 2017. Are Human Agents Myopic or Far-Sighted Under Differential Conditions of Risk and Ambiguity? A Bayesian Network Model of Biosecurity State Transitions in a Sequential Decision Experiment. Conference on Complex Systems. Cancun, Mexico. September 17-22, 2017

86. Asim Zia*, Andrew W. Schroth, Patrick J. Clemens, Christopher Koliba, Arne Bomblies, Brian Beckage. 2017. Understanding Lags, Thresholds and Cross Scale Dynamics in Social Ecological Systems: Cascading Impacts of Climate and Land Use Adaptation on Missisiquoi Bay. Conference on Complex Systems. Cancun, Mexico. September 17-22, 2017
85. Christopher Koliba*, Asim Zia and Scott Merrill. 2017. Utilization of Computer Simulation and Serious Games to Inform Livestock Biosecurity Policy and Governance. *Conference on Complex Systems*. Cancun, Mexico. September 17-22, 2017
84. Zia*, A., Koliba, C. 2017. Agent based modeling of intergovernmental networks: harnessing experimental simulations for transportation policy informatics. 35th International Conference of the System Dynamics Society, Cambridge MA. July 16-20, 2017
83. Shang Wu*, Asim Zia, Mengyuan Ren, Kent Messer. 2017. Simulating Heterogeneous Farmer Behaviors under Different Policy Schemes: Integrating Economic Experiments and Agent-Based Modeling. *NSF Funded Workshop on Agent Based Modeling*, San Diego, California, April 20-April 22, 2017.
82. Bucini* G., Wiltshire S., Merrill S.C., Zia A., Koliba J.C., Clark E., Trinity L., Moegenburg S., Smith M.J. 2017. Where will the Infection Spread? Effects of Movement Networks and Human Risk Attitude on Spread of Swine Disease. *NSF Funded Workshop on Agent Based Modeling*, San Diego, California, April 20-April 22, 2017.
81. Shang Wu*, Asim Zia, Mengyuan Ren, Kent Messer. 2017. Simulating Heterogeneous Farmer Behaviors under Different Policy Schemes: Integrating Economic Experiments and Agent-Based Modeling. *The conference on Complexity-Based Analytics and Policies for Social Good*, Washington DC. April 12-14, 2017
80. Zia*, A., Koliba, C. 2017. Agent based modeling of intergovernmental networks: harnessing experimental simulations for transportation policy informatics. The conference on Complexity-Based Analytics and Policies for Social Good, Washington DC. April 12-14, 2017
79. Zia*, A. 2017. Agent based modeling of alternative policy mixes: experimental simulations of farmer nutrient management adoption behaviors. 78th annual meeting of American Society of Public Administration, Atlanta GA. March 17-22, 2017

78. Scheinert*, S., Koliba, C., Zia, A. 2017. Measuring democratic, market and administrative accountability mechanisms in complex watershed governance networks. 78th annual meeting of American Society of Public Administration, Atlanta GA. March 17-22, 2017
77. Zia*, A., Y. Tsai, S. Turnbull, C. Koliba. 2016. Multi-scale modeling of land-use land cover change in social ecological systems: an agent based model of Missisquoi watershed in the Lake Champlain basin, 2000-2100. *7th Annual Meeting of Earth System Governance*. Nairobi, Kenya. December 7-9, 2016
76. Zia*, A. 2016. How equitable are CO2 emission entitlements in the Paris Agreement? Evaluation of “Intended Nationally Determined Contributions” versus CO2 per capita for a 2C Global Carbon Budget and Global Carbon Trading Mechanism. *7th Annual Meeting of Earth System Governance*. Nairobi, Kenya. December 7-9, 2016
75. Zia*, A. 2016. Machine learning how human risk perceptions shape behavior: comparing a diversity of approaches to predict how climate risk perceptions lead to green behaviors for the US population. *4th Annual Bayesia Lab Conference*. Nashville TN. September 28-29, 2016
74. Zia*, A., C. Koliba. 2016. Institutional analytics: agent based modeling of intergovernmental dynamics and control. *SwarmFest2016: 20th Annual Meeting on Agent-Based Modeling & Simulation*. Burlington VT. July 31- August 2, 2016.
73. Zia*, Asim, Yushiou Tsai, Scott Turnbull, Shanshan Ding, Haoran Miao, Christopher Koliba, Scott Merrill, Kent Messer, Jordan Suter, Jacob Fooks, Todd Guilfoos, Simona Trandafir, Emi Uchida (2016) Simulating the effects of alternate control strategies on heterogeneous farmer behaviors and water quality outcomes: an agent based modeling application in Missisquoi watershed of Lake Champlain Basin. *SwarmFest2016: 20th Annual Meeting on Agent-Based Modeling & Simulation*. Burlington VT. July 31- August 2, 2016.
72. Y. Tsai, S. Turnbull and A. Zia, “Farmers’ Decisions for Adopting Best Management Practices: An Application of A Spatially Explicit Agent-based Model,” *SwarmFest2016: 20th Annual Meeting on Agent-Based Modeling & Simulation*. Burlington VT. July 31- August 2, 2016.
71. Zia*, A., C. Koliba, A. Bomblies, A. Schroth, B. Beckage 2016. Adaptive management of critical transitions in social ecological systems: governing alternate stable states in Lake Champlain basin. *ISEE 2016: Transforming the Economy: Sustaining Food, Water, Energy and Justice*. Washington DC.

June 26-29, 2016.

70. Zia*, A., A. Bomblies, C. Koliba, A. Betts, B. Beckage, P. Clemins, Y. Tsai. 2016. Spatial Scale and political ideology confound climate risk communication. *ISEE 2016: Transforming the Economy: Sustaining Food, Water, Energy and Justice*. Washington DC. June 26-29, 2016.
69. Tsai*, Y., I. N. Mohammed, S. Turnbull, A. Zia and A. Bomblies "Impacts of Land Use on Flows in Missisquoi Watershed: An Integration of A Land Use Agent-based Model and RHESSys," *EWRI World Environmental & Water Resources Congress*, West Palm Beach, Florida, May 22-26, 2016.
68. Koliba*, C., S. Scheinert, and A. Zia. 2016. Toward a New Economics of Networks: Using Institutional Network Analysis to Study Principal-Agent and Peer-to-Peer Ties. *American Society for Public Administration Annual Conference*. Seattle, WA.
67. Scheinert, S., Koliba*, C., Zia, A., Tsai, Y., and Coleman, S. 2015. Bridging the Meso and Micro Level Scales of Social Complexity within a Socio-Ecological System: Modeling the Relationship Between Governance Networks and Land Use/Management Decisions in the Northeastern Segment of the Lake Champlain Basin. *Conference on Complex Systems (CCS'15)*, Tempeh AZ. September 28-October 2, 2015.
66. Zia*, A., C. Koliba (2015) Institutional Analytics: How Multi-Level Institutional Mechanisms Generate Basins of Attraction in Infrastructure Investments? *Conference on Complex Systems (CCS'15)*, Tempeh AZ. September 28-October 2, 2015.
65. Zia, Asim, Yushiou Tsai, Christopher Koliba, Scott Turnbull (2015) Experimental Simulations of Land-Use Land Cover Change (LULCC) under Heterogeneous Policy Regimes: An Agent Based Model of Rural-Urban-Forest Interface in the Missisquoi Watershed of Lake Champlain Basin, 2000-2050. *Conference on Complex Systems (CCS'15)*, Tempeh AZ. September 28-October 2, 2015.
64. Zia, Asim, Nina Fefferman, Peter Howe, Sara Metcalf, Travis Franck, Katherine Lacasse, Forrest Hoffman, Jonathan Winter, Adam Schlosser, Brian Beckage, Louis Gross (2015) Modeling the Effects of Heterogeneous Climate Change Risk Perceptions on Energy Consumption and Green House Gas (GHG) Mitigation Behaviors: An Agent Based Model of US Population, 2010-2030. *SwarmFest2015: 19th Annual Meeting on Agent-Based Modeling & Simulation*. Columbia, SC. July 10-12, 2015.

63. Zia, Asim, Yushiou Tsai, Scott Turnbull, Christopher Koliba (2015) Simulating Land-Use Land Cover Change (LULCC) at Watershed Scales under Heterogeneous Policy Designs: An Agent Based Model of Missisquoi Watershed in the Lake Champlain Basin, 2000-2040. *SwarmFest2015: 19th Annual Meeting on Agent-Based Modeling & Simulation*. Columbia, SC. July 10-12, 2015.
62. Zia, Asim, Andrew Schroth, Yaoyang Xu, Peter Isles, Ahmed Hamed, Yushiou Tsai, Ibrahim Mohammed, Arne Bomblies (2015) An Autoregressive Bayesian Network to Assess Climate & Nutrient Variability Impacts on Water Quality. *International Association of Great Lakes Research (IAGLR) Annual Conference*, Burlington VT. May 25-29, 2015
61. Tsai*, Y., I.N. Mohammed, S. Turnbull, A. Zia and A. Bomblies (2015) Impacts of Zoning Policies on Flood and Water Quality: An Integrated Assessment Modelling Application. *EWRI World Environmental & Water Resources Congress, Austin, Texas*, May 17-21, 2015
60. Scheinert, S., Zia, A., and Koliba, C. (2015) Examining the Links between the Empirical and the Computational: Building a Computational Agent-Based Model From an Empirical Network Model. *The American Society for Public Administration Annual Conference, Chicago, IL*. March 2015
59. Zia, A. (2014) Governance Network Analytics: Simulating the Emergence of Voting Patterns under Alternative Network Structures and Mental Models. *110th annual meeting of the American Political Science Association (APSA)*, Washington DC (August 28-31, 2014)
58. Zia, A., Koliba, C., Bomblies, A., Schroth, A., Beckage, B. (2014) Adaptive Management of Critical Transitions in Social Ecological Systems: Governing Alternate Stable States in Lake Champlain Basin. *110th annual meeting of the American Political Science Association (APSA)*, Washington DC (August 28-31, 2014)
57. Zia*, A., Koliba, C., Bomblies, A., Schroth, A., Beckage, B. (2014) Adaptive Co-Management of "Tipping Points" in Social Ecological Systems: Governing Alternate Stable States in Lake Champlain Basin. *2014 Norwich Conference on Earth System Governance: Access and Allocation in the Anthropocene*, Norwich, UK (July 1-3, 2014)
56. Tsai, Y., I. N. Mohammed, S. Turnbull, A. Zia, and A. Bomblies, "Interactions of landowners' land use decisions with flood and water quality," *American Geophysical Union Fall Meeting*, San Francisco, CA, (December 2014)

55. Mohammed*, I. N., Y. Tsai, S. Turnbull, A. Bombles and A. Zia, "Coupled dynamics to assess human impact on watershed hydrology," *American Geophysical Union Fall Meeting*, San Francisco, CA, (December 2014)

54. Tsai*, Y. , I.N. Mohammed, A. Zia and S. Turnbull. (2014) Impacts of Landowners' Land-use Decisions on Flood and Water Quality: An Integration of Land-use Agent-based Model and RHESys. *EWRI World Environmental & Water Resources Congress*, Portland, Oregon, (June 1-5, 2014)

53. Zia*, A., Schroth, A., Xu, Y., Isles, P. (2014) Quantifying Uncertainty in Modeling the Impacts of Climate Change on Water Quality in Freshwater Lakes: A Bayesian Network Model of Missisquoi Bay. *38th Annual NEAEB Conference*, Burlington VT (Mar 26-28, 2014)

52. Turner, D., Koliba*, C., Wiltshire, S., Zia, A., Campbell, E., Scheinert, S., (2014) Ascertaining the Value Proposition of Networks: An Institutional Network Analysis of the Farm to Plate Network. *75th annual meeting of the American Society for Public Administration*. Washington DC, March 2014.

51. Clement, C., Fernandez, L., Foco, A., Keir, L., Koliba*, C., Pierce, V., Prasad, P., Steele, C., Tursi, A., Zia, A. (2014) The Institutional Design Features of Open Government Platforms: A Comparative Analysis of Five Federal Open Government Initiatives. *75th annual meeting of the American Society for Public Administration*. Washington DC, March 2014.

50. Zia*, A. (2014) Adaptive Governance of Alternate Stable States in Social Ecological Systems: Simulating the Impacts of Alternative Policy Mixes on Farmer Behaviors. *International Conference on Policy Mixes in Environmental and Conservation Policies*, Leipzig, Germany (Feb 25-27, 2014)

49. Steve Scheinert*, Chris Koliba, Asim Zia (2013) Seeking Simple Models of Highly Nuanced Systems: Building a Model of Water Quality Management. *Annual Conference of the Association of Public Policy Analysis and Management (APPAM)*, Washington, DC, (November 2013)

48. Zia*, A. (2013) Meta-Decision Modeling of Wicked Landscape Design Problems: Resolving Conservation Versus Development Value Conflicts in Tanzanian, Vietnamese and Peruvian Social Ecological Systems. *Symposium on "Wicked Problems in Socio-Ecological Systems,"* University of California, Berkeley, October 2013

47. Zia*, A., C. Koliba (2013) Institutional Analytics: How Multi-Level Institutional Mechanisms Generate Basins of Attraction in Infrastructure Investments?

*Annual meeting of the American Political Science Association (APSA),
Chicago IL, August-September 2013*

46. Zia*, A., C. Koliba (2013) Adaptive Management of Critical Transitions in the Social Ecological Systems: Governing Alternate Stable States in Multi-Jurisdictional Lake Champlain Basin. *The American Society for Public Administration, Section on Complexity and Network Studies (SCNS), and Erasmus University Rotterdam, research group Governance of Complex Systems (GOCS) Joint Conference on "Challenges of Making Public Administration and Complexity Theory Work" (COMPACT) II*. La Verne, CA, June 2013
45. Koliba*, C., A. Zia (2013) The Resiliency Challenge for Social Ecological Systems: Overcoming Institutional Silos Through Mediated Modeling. *The American Society for Public Administration, Section on Complexity and Network Studies (SCNS), and Erasmus University Rotterdam, research group Governance of Complex Systems (GOCS) Joint Conference on "Challenges of Making Public Administration and Complexity Theory Work" (COMPACT) II*. La Verne, CA, June 2013
44. Steve Scheinert*, Adam Reynolds, Christopher Koliba, Asim Zia (2013) Tracking Emergence in an Environmental Governance Network: Dynamic Network Analysis of Lake Champlain Basin Program's Opportunities for Action Plans." *Sunbelt Conference 33*, Hamburg, Germany, May 2013
43. Koliba*, C., A. Zia (2013) The Role of Governance Informatics in Promoting Accountability and Performance: Examples from Watershed Management and Transportation Planning. *International Research Society for Public Management (IRSPM) Annual Conference*. Prague, Czech Republic, April 2013
42. Tsai*, Y., A. Zia, C. Koliba, J. Guilbert, G. Bucini, B. Beckage (2013) Impacts of Land Managers' Decisions on Landuse Transition Within Missisquoi Watershed Vermont: An Application of Agent-based Modeling System. *IEEE International Systems Conference*. Orlando FL, April 2013
41. Zia*, A., C. Koliba (2013) Institutional Analytics: How Multi-Level Institutional Mechanisms Generate Basins of Attraction in Infrastructure Investments? *International Research Society for Public Management (IRSPM) Annual Conference*. Prague, Czech Republic, April 2013
40. Zia*, A. (2013) Global Democracy-Deficit and Accountable Climate Governance: Do We Need an Elected Global Parliament? *American Society for Public Administration annual meeting*. New Orleans LA, March 2013.

39. Koliba*, C., N. Brune, M. Berman*, A. Zia (2013) Building and Governing the Smart Grid: Lessons from a Statewide Public-Private Partnership. *American Society for Public Administration annual meeting*. New Orleans LA, March 2013.
38. Zia*, A., C. Koliba (2013) Agent-Based Modeling of Intergovernmental Networks: A Complex Systems Approach to Analyze Transportation Policy Implementation Processes, January 2013. *Earth System Governance Annual Meeting*. United Nations University, Tokyo, Japan, January 2013.
37. Zia*, A., Paul Hirsch, Alexander N. Songorwa, David R. Mutekanga, Sheila O'Connor, Thomas McShane, Pete Brosius, Bryan Norton (2012) Cross-Scale Value Trade-Offs in Managing Social-Ecological Systems: The Politics of Scale in Ruaha National Park, Tanzania. *Earth System Governance annual meeting*. Lund University, Lund, Sweden, April 2012.
36. Zia*, A., Koliba, C. (2012) Experimental Simulations of Decision Making in Governance Networks: Theoretical and Methodological Implications of Pattern-Oriented Simulation Models. *American Society for Public Administration annual meeting*. Las Vegas NV, March 2012.
35. Zia*, A., Koliba, C. (2011) Simulating Transportation Governance Networks and their Alternate Institutional Designs. *Association for Public Policy Analysis and Management annual meeting*. Washington DC, November 2011.
34. Koliba*, C., Zia, A. (2011) Governance Informatics: Managing the Performance of Inter-Organizational Governance Networks. *Association for Public Policy Analysis and Management annual meeting*. Washington DC, November 2011.
33. Koliba*, C., Zia, A., Tucker, M., Novak, D. (2011) Fostering Innovation in an Intergovernmental Transportation Planning Governance Network through Multi-Criteria Analysis. *The American Political Science Association annual meeting*. Seattle, Washington. September 2011
32. Koliba*, C., Zia, A. (2011) Theory Testing Using Complex Systems Modeling in Public Administration and Policy Studies: Challenges and Opportunities for a Meta-Theoretical Research Program. *The American Society for Public Administration, Section on Complexity and Network Studies (SCNS), and Erasmus University Rotterdam, research group Governance of Complex Systems (GOCS) Joint Conference on "Challenges of Making Public Administration and Complexity Theory Work" (COMPACT)*. Rotterdam, The Netherlands, June 2011

31. Zia, A., Koliba*, C., Metcalf, S., Widener, M. (2011) Agent Based Models of Cross-Jurisdictional Governance Networks: Simulating the Emergence of Project Prioritization Patterns Under Alternate Policy Theoretical Frameworks and Network Structures. *The American Society for Public Administration, Section on Complexity and Network Studies (SCNS), and Erasmus University Rotterdam, research group Governance of Complex Systems (GOCS) Joint Conference on "Challenges of Making Public Administration and Complexity Theory Work" (COMPACT)*. Rotterdam, The Netherlands, June 2011

30. Zia*, A., Koliba, C., Metcalf, S., Widener, M. (2011) Agent Based Models of Cross-Jurisdictional Governance Networks: Simulating the Emergence of Project Prioritization Patterns Under Alternate Policy Theoretical Frameworks and Network Structures. *11th Biannual Public Management Research Association Conference, Syracuse NY, June 2011*

29. Zia, A., Koliba, C., Campbell, E., Lee*, B. H. Y, Meek, J., Colangelo, D. (2011) The Utilization and Valuation of Performance Measures for Metropolitan Planning Organizations: Understanding the Effects of Contextual Complexity and Collaborative Capacity from a National-Level Survey. *11th Biannual Public Management Research Association Conference, Syracuse NY, June 2011*

28. Koliba, C., Zia*, A. (2011) Using Agent-Based Models to Ascertain Accountability Systems within Complex Watershed Governance Networks. *Colorado Conference on Earth System Governance: "Crossing Boundaries and Building Bridges"*, to be held at Colorado State University, 17-20 May 2011

27. Zia*, A. (2011) Post-Kyoto Climate Governance and REDD Policy Design: Confronting the Politics of Scale and Knowledge in Managing Trade-Offs. *Colorado Conference on Earth System Governance: "Crossing Boundaries and Building Bridges"*, to be held at Colorado State University, 17-20 May 2011

26. Zia*, A. (2011) Social Traps in Managing Environmental Risks: Understanding the Effects of Scale and Ideology in Climate Change Risk Perceptions. *Annual Meeting of the American Society for Public Administration, Baltimore, Maryland, March 2011*

25. Zia*, A., Koliba, C., Lee, B. H. Y. (2011) Explaining the Emergence of Project Prioritization Patterns in Governance Networks: Agent Based Modeling of

- MPO Transportation Implementation Plans. *Annual Meeting of the American Society for Public Administration, Baltimore, Maryland, March 2011*
24. Lee*, B. H. Y, Zia, A., Koliba, C. (2010) Metropolitan Planning Organizations and Travel Demand Modeling: A National Examination of Transportation Planning Activities and Challenges. *North American Meeting of the Regional Science Association International (RSAI) sponsored by the North American Regional Science Association (NARSC)*. Denver CO, November 2010
 23. Zia*, A., Metcalf, S., Norton, B. G., Hirsch, P., Hannon, B. (2010) An Ambit-Base for Sense of Place: Where We (C)are? *American Collegiate Schools of Planning (ACSP) Annual Conference*, Minneapolis MT, October 2010
 22. Zia*, A., and Glantz, M. (2010) Designating "Risk Zones": Comparing Risk Governance in USA and South Asia. *Workshop on "Disaster Resilience: Comparative Perspectives,"* organized by International Comparative Policy Analysis Forum (ICPA-Forum), University of Pittsburgh, PA, April 2010
 21. Zia*, A., Metcalf, S., and Koliba, C. (2010) Management of Complex Governance Networks: Opportunities and Challenges for Agent Based Models of Policy Analysis. *Annual Meeting of the American Society for Public Administration*, San Jose CA, April 2010
 20. Zia*, A. (2009) Comparative Analysis of Post-Kyoto Climate Change Policy Design: Ethical and Statistical Dilemmas in the "Fair" Allocation of Green House Gas Emission Allowances Across the Nation States. *31st Annual Research Conference of Association for Public Policy Analysis and Management*, Washington DC, November 2009
 19. Zia*, A. and Koliba, C. (2009) Climate Change Governance and Accountability: Dilemmas of Performance Measurement in Complex Governance Networks. Presented in 5th Trans-Atlantic Dialogue. George Washington University. Washington DC., June 2009
 18. Koliba*, C., Meek, J. and Zia, A. (2009) Gordian Knot or Meta-Theory? Conceptual Dilemmas in Governance Network Analysis. Presented in 5th Trans-Atlantic Dialogue. George Washington University. Washington DC.
 17. Zia*, A. (2009) Post-Kyoto Climate Change Governance Regime: Analyzing Ethical and Statistical Dilemmas in the "Fair" Allocation of Green House Gas Emission Allowances. *Annual meeting of US Society for Ecological Economics*, Washington DC, May-June 2009, June 2009

16. Zia*, A. (2009) Implementation Dilemmas of International Climate Policy: Revisiting the Problem of “Fair” Allocation of Green House Gas Emission Allowances in a Post-Kyoto Governance Regime. *Annual Meeting of the American Society for Public Administration*, Miami FL, March 2009
15. Zia*, A. (2008) Barriers and Bridges to Photovoltaic (PV) Electricity Generation: A Survey of Homeowners in California’s Bay Area. *Annual Meeting of the Association of American Geographers*, Boston MA, April 2008
14. Todd*, A.M., Zia*, A. (2007) Integrative Learning in General Education: An Interdisciplinary Approach to the Teaching and Learning of Global Climate Change. *Association of American Colleges and Universities’ Conference on Civic Learning at the Intersections: U.S. Diversity, Global Education, and Democracy’s Unfinished Work*, Denver CO, October 2007
13. Zia*, A., and Arenstein*, W. (2007) An Evaluation Framework for Indirect Source Review (ISR) Programs: Current Controversies and Future Prospects. *100th Annual Conference and Exhibition of Air and Waste Management Association*, Pittsburgh PA, June 2007
12. Zia*, A. (2007) Land Use Adaptation to Climate Change: Forecasting the Economic Impact of Hurricanes in the Atlantic and Gulf Coastal Regions of the U.S. *Annual Meeting of the Association of American Geographers*, San Francisco CA, April 2007
11. Zia*, A. (2006) Policy Response to Natural Disasters: A Comparative Study of North American and South Asian “Zoning” Experiences. *28th Annual Research Conference of the Association for Public Policy Analysis and Management*, Madison WI, November 2006
10. Zia*, A., M. Glantz (2005) The Components of a Climate and Society Affairs Program: A South Asian Context. *International Workshop on Impacts of Weather and Climate on Society Affairs, COMSATS Institute of Information Technology*, Islamabad, Pakistan, November 2005
9. Zia*, A. (2005) Adaptive Policy Mechanisms: Managing Climate Change Risk from Natural Hazards in South Asia. *International Workshop on Impacts of Weather and Climate on Society Affairs, COMSATS Institute of Information Technology*, Islamabad, Pakistan, November 2005
8. Zia*, A. (2005) Wicked Environmental Design Problems and Meta-Decision Models: The Cases of Vehicular Emissions, Energy Source Mixes and Green-House Gas Emissions. *Association of Collegiate Schools of Planning (ACSP) Annual Conference*, Kansas City MO, October 2005

7. Lazo*, J., A. Zia, R. Morss (2005) Expert Mental Modeling of the Weather Forecast System. *21st Conference on Weather Analysis and Forecasting/ 17th Conference on Numerical Weather Prediction*, Washington DC, August 2005
6. Zia, A., R. Morss*, and J. Lazo (2005) Socioeconomic Value of (Quantitative) Precipitation Forecasts: A Synthesis. *21st Conference on Weather Analysis and Forecasting/ 17th Conference on Numerical Weather Prediction*, Washington DC, August 2005
5. Zia*, A. (2005) An Emission-Inventory Based Methodology to Evaluate Vehicle Inspection and Maintenance Programs: A Case-Study of the Atlanta Airshed 1997-2001. *The Air & Waste Management Association's 98th Annual Conference & Exhibition*, Minneapolis MN, June 2005
4. Zia*, A., R. Morss, and J. Lazo (2005) Value of Quantitative Precipitation Forecast Information: A Methodological Review. *The 25th International Symposium of Forecasting*, San Antonio TX, June 2005
3. Zia, A., R. Morss, and J. Lazo* (2004) Societal Value of Improved Quantitative Precipitation Forecasts: A Synthesis. *First THORPEX/WMO International Science Symposium*, Montréal, Canada, December 2004
2. Zia*, A. and B. G. Norton (2003) Using Multiple Decision Rules to Evaluate Vehicle Inspection and Maintenance Program in the Atlanta Airshed: Towards Meta-decision Models in Environmental Management. *Third Joint Congress of the Association of Collegiate Schools of Planning (ACSP) and the Association of European Schools of Planning (AESOP)*, Leuven, Belgium, July 2003
1. Zia*, A. and C. J. Waddick* (2001) Impact of "Standard" Environmental Management Systems on Technology Forecasting. *The 21st International Symposium on Forecasting*, Pine Mountain, GA, June 2001

- **Posters**

11. Jory S. Hecht*, Asim Zia, Brian Beckage, Jonathan Winter, Patrick Clemins, Andrew Schroth, Donna Rizzo, Arne Bombliies (2017) The Sensitivity of Lake Algal Blooms to Changes in Climate Variability and Extremes. *Annual Meeting of American Geophysical Union, New Orleans, 11-15 December, 2017.*

10. Zia*, A., C. Koliba, M. Tucker. 2017. Intergovernmental dynamics of transportation planning: Why some towns attract more federal funding than others? 35th International Conference of the System Dynamics Society, Cambridge MA. July 16-20, 2017

9. Y. Tsai*, S. Turnbull and A. Zia. 2017. The interactive effects of land use patterns, socio-economic status, and social psychological factors on the adoption of best management practices: an application of a land use agent-based Model. *NSF Funded Workshop on Agent Based Modeling*, San Diego, California, April 20-April 22, 2017.

8. Zia*, A., A. Schroth, Y. Xu, P. Isles. 2017. Combined temperature and precipitation variability may increase the frequency of harmful algal blooms in Lake Champlain, 1992-2100. *AGU Chapman Conference on Extreme Climate Event Impacts on Aquatic Biogeochemical Cycles and Fluxes*, San Juan PR. January 22-27, 2017.

7. Scheinert*, S., Koliba, C., Zia, A., Tsai, Y., and Coleman, S. 2015. Bridging the Meso and Micro Level Scales of Social Complexity within a Socio-Ecological System: Modeling the Relationship Between Governance Networks and Land Use/Management Decisions in the Northeastern Segment of the Lake Champlain Basin. *NSF EPSCoR National Conference*, Portsmouth, NH. November 1-3, 2015.

6. Zia*, A., C. Koliba (2013) Agent-Based Modeling of Intergovernmental Decision Making: How Institutional Rules Generate Basins of Attraction in Funding Transportation Projects. *Transportation Research Board 92nd Annual Meeting*. Washington DC, January 2013. Paper No. 13-2153.

5. Zia, A., Koliba, C., De Pinto, T. (2012) Multi-Criteria Evaluation of Metropolitan Transportation Planning Scenarios: Assessing Trade-Offs Between Business-As-Usual and Alternate Sustainable Community Designs. *Transportation Research Board 2012 Annual Meeting*, Washington DC, January 2012. Paper no. 12-2461.

4. Zia, A., Koliba, C., Campbell, E., Lee, B. H. Y, Meek, J., Colangelo, D. (2011) Prioritization of Performance Measures for MPOs: Understanding the Effects of Contextual Complexity and Collaborative Capacity from a National-Level Survey. *Transportation Research Board 2011 Annual Meeting*, Washington DC, January 2011. Paper no. 11-2913.

3. Zia, A. (2006) An Emission-Inventory Based Methodology to Evaluate Vehicle Inspection and Maintenance Programs: A Case-Study of the Atlanta Airshed

1997-2001. *Transportation Research Board 2006 Annual Meeting*, Washington DC, USA, January 2006

2. Zia, A. (2005) Cooperative and Non-Cooperative Decision Behaviors in Response to the Inspection and Maintenance Program in the Atlanta Airshed, 1997-2001. *The 27th annual research conference of the Association for Public Policy Analysis and Management (APPAM)*, Washington DC, USA, November 2005
1. Zia, A. (2003) Cooperative and Non-Cooperative Decision Behavioral Strategies: an Evaluation of the Impact of High-emitting Vehicle Owners on Vehicular Emissions in the Atlanta Airshed. *The 25th annual research conference of the Association for Public Policy Analysis and Management (APPAM)*, Washington DC, USA, November 2003

TEACHING EXPERIENCE

Courses Taught

- 01/2018 – 05/2018 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (17 Students)
- 01/2018 – 05/2018 **Smart Resilient Communities** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)
- 08/2017 – 12/2017 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (16 Students)
- 01/2017 – 05/2017 **Resilient Communities: Designing at the nexus of food, energy and water systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (17 Students)
- 01/2017 – 05/2017 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (16 Students)
- 08/2016 – 12/2016 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)

- 01/2016 – 05/2016 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)
- 08/2015 – 12/2015 **Fundamentals of Public Administration** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)
- 01/2014 – 05/2014 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (20 Students)
- 08/2013 – 12/2013 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (18 Students)
- 08/2013 – 12/2013 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (29 Students)
- 01/2013 – 05/2013 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (8 Students)
- 08/2012 – 12/2012 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (6 Students)
- 08/2012 – 12/2012 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (34 Students)
- 01/2012 – 05/2012 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (7 Students)
- 08/2011 – 12/2011 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (5 Students)
- 08/2011 – 12/2011 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (29 Students)

- 01/2011 – 05/2011 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (6 Students)
- 01/2011 – 05/2011 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (21 Students)
- 08/2010 – 12/2010 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (7 Students)
- 08/2010 – 12/2010 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (24 Students)
- 01/2010 – 05/2010 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (9 Students)
- 01/2010 – 05/2010 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (16 Students)
- 08/2009 – 12/2009 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (21 Students)
- 08/2008 – 12/2008 **Introduction to Public Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (16 Students)
- 08/2008 – 12/2008 **Fundamentals of Public Administration** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (17 Students)
- 01/2008 – 05/2008 **Alternative Energy Strategies** Department of Environmental Studies, San Jose State University, San Jose CA (26 Students)
- 08/2007 – 05/2008 **Global Climate Change** Departments of Environmental Studies, Communication Studies, Geology and Meteorology, San Jose State University, San Jose CA (78 students) *This was a 9-unit one-year course co-taught with Professor Anne Marie Todd and Professor Richard Sedlock*

- 08/2007 – 12/2007 ***Sustainable Energy Seminar*** Departments of Environmental Studies and Chemical Engineering, San Jose State University, San Jose CA (26 students). *This was a 1-unit course co-taught with Professor Greg Young*
- 06/2007 – 07/2007 ***Energy Policy Analysis*** Department of Environmental Studies, San Jose State University, San Jose CA (17 students)
- 01/2007 – 05/2007 ***Alternative Energy Strategies*** Department of Environmental Studies, San Jose State University, San Jose CA (24 students)
- 01/2007 – 05/2007 ***Introduction to Environmental Issues*** Department of Environmental Studies, San Jose State University, San Jose CA (24 students)
- 01/2007 – 05/2008 ***Public Service Internships*** Department of Environmental Studies, San Jose State University, San Jose CA (20-25 students each semester)
- 08/2006 – 12/2006 ***Solar Energy Applications*** Department of Environmental Studies, San Jose State University, San Jose CA (23 students)
- 08/2006 – 12/2006 ***Introduction to Environmental Issues*** Department of Environmental Studies, San Jose State University, San Jose CA (78 students in 2 Sections)
- 08/1995 – 04/1996 ***Politics and Current Affairs*** Islamabad Institute of Creative Studies, Islamabad, Pakistan (20 students)

Teaching Assistantships

- 08/2002 – 12/2002 ***Transportation Statistics*** Department of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta GA (22 students)
- 08/2001 – 12/2001 ***Transportation Statistics*** Department of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta GA (11 students)
- 05/2001 – 08/2001 ***Science and Technology Values*** School of Public Policy, Georgia Institute of Technology, Atlanta GA (59 students)

Invited Presentations (Selected)

12/2017	Smart, Resilient and Sustainable Communities: A responsive multi-level governance approach for mitigation and adaptation to climate change in Pakistan. <i>International Science-Policy Conference on Climate Change in Pakistan. Islamabad, Pakistan</i>
12/2017	Social Ecological Games and Simulations: Integrative Modeling of Policies, Behaviors and Environments. <i>UNC Charlotte.</i>
11/2017	Implementing Nationally Determined Contributions (NDC's): Planning and coordination at the regional, national and subnational level. <i>UNFCCC Conference of Parties COP23 Side Event, Bonn Germany</i>
4/2017	Machine learning how human risk perceptions shape behaviors and policies. <i>Gund Institute for Ecological Economics, Burlington VT</i>
1/2017	Agent based modeling and scenario planning. <i>NEWRNet Policy Makers Workshop: Human Behavior, Sensor Networks and Water Quality Three State "Virtual" Conference</i>
11/2016	Is Pakistan an El Nino ready nation? <i>UNFCCC Conference of Parties COP22 Side Event</i>
10/2016	Computational policy analytics: Policy modeling in the age of big data. <i>UNC Charlotte.</i>
10/2016	Coupled impacts of climate and land use change across a river-lake continuum: insights from an integrated assessment model of Lake Champlain's Missisquoi basin, 2000-2040. <i>UNC Charlotte.</i>
09/2016	Adaptation to climate change in Lake Champlain basin: Integrated assessment modeling of climate change, land use change, hydrology and lake biogeochemistry interactions. <i>Lake Champlain Basin Program Technical Advisory Committee.</i>
04/2016	Global Democracy-Deficit in the Age of Anthropocene: Pros and Cons of Institutionalizing an Elected Global Parliament. <i>Law and Governance for the Anthropocene. Vermont Law School</i>
02/2016	Informing & Analyzing Public Policies with Complexity Science Tools. <i>Complex Systems in Education Symposium. Center for Education Integrating Science, Mathematics & Computing. Georgia Institute of Technology, Atlanta GA</i>

01/2016	COP 21: The Good, The Bad & The Ugly. <i>Gund Institute for Ecological Economics, Burlington VT</i>
10/2015	Adaptation to Climate Change in Lake Champlain Basin: Implications for Cities and Towns. <i>VT Town and City Managers Association conference. Burlington VT</i>
10/2015	Adaptation to Climate Change in Lake Champlain Basin: Integrated Assessment Modeling of Climate Change, Land-Use Change, Hydrology and Lake Biogeochemistry Interactions. <i>Mediated Modeling Workshop. Research on Adaptation to Climate Change. VT EPSCOR</i>
09/2015	Trans-boundary Data Sharing and Resilience Scenarios: Harnessing the Role of Regional Organizations for Environmental Security. <i>Imagining Indus: Overcoming Water Insecurity in the Indus Basin workshop organized by United Nations University's Institute for Water, Environment & Health, Hamilton ON, Canada</i>
06/2015	The Scramble for Arctic Resources: Reframing energy and resource extraction in the Arctic. " <i>Reframing the Arctic: Cooperation, Not Conflict.</i> " <i>US Department of Defense sponsored workshop organized by Institute for Environmental Diplomacy and Security. Burlington VT</i>
05/2015	Measuring the Impact of Technology Transfer in Health Sector: Health Technology Assessments. <i>Peruvian Ministry of Health, Lima Peru</i>
09/2012	Computer Simulation Models of Interagency Networks: Applications to Transportation Infrastructure Planning and Watershed Management. <i>Government Accountability Office, Washington DC</i>
08/2011	Computational Models of Policies, Behaviors and Governance Networks: Applications in Air, Water, Climate, Transportation and Energy Decision Making. <i>National Sandia Labs, US Department of Energy</i>
02/2011	Cross-Scale Value Trade-Offs in Managing Socio-Ecological Systems: The Politics of Scale in Ruaha National Park, Tanzania. <i>Gund Institute for Ecological Economics</i>
10/2007	Designing Contextual Decision Support Systems for Evaluating Trade-Offs: A Research Program for Meta-Decision Models. <i>Invited</i>

panelist for a McArthur Foundation funded workshop on “Trade-offs between Conservation and Development” organized by Center for Integrative Conservation Research, University of Georgia at Athens

- 03/2006 Adaptive Policy Designs: Managing Energy Use for a Sustainable Society. *Department of Environmental Studies, San Jose State University*
- 03/2005 Meta-Decision Models: A Multi-Scalar Adaptive Approach to Model Environmental Policy Designs and Decision Behaviors. *Institute of Behavioral Sciences, University of Colorado at Boulder*
- 06/2004 Cooperative and Non-cooperative Decision Behaviors in Response to Environmental Regulations. *Environmental and Societal Impacts Group, National Center for Atmospheric Research, Boulder*

FELLOWSHIPS, AWARDS, AND HONORS

Winner of STAR 2017 Award

Presented for one of the best papers in *NSF Funded Workshop on ABM Modeling*, San Diego, California, April 20-April 22, 2017 for the paper “Shang Wu*, Asim Zia, Mengyuan Ren, Kent Messer. 2017. Simulating Heterogeneous Farmer Behaviors under Different Policy Schemes: Integrating Economic Experiments and Agent-Based Modeling. *NSF Funded Workshop on Agent Based Modeling*, San Diego, California, April 20-April 22, 2017.”

Outstanding Alumnus Award, School of Public Policy, Georgia Institute of Technology, Atlanta GA (2014)

Sea-Sky Scholar, Dalian University of Technology, China (2014-16)

Fellow, Gund Institute of Ecological Economics, University of Vermont, Burlington VT (March 2011 to Present)

Senior Research Fellow, Earth System Governance Project.
<http://www.earthsystemgovernance.org/> (March 2013 to Present)

Winner of 2011 Marshall E. Dimock Award

Presented for the best lead article in *Public Administration Review* during a volume year (2011) for the paper “Accountability in Governance Networks: An Assessment of Public, Private, and Nonprofit Emergency Management Practices Following Hurricane Katrina”, Koliba, C., Mills, R. and Zia, A.

Winner of the 2004-2005 APPAM Ph.D. Dissertation Award

The Association for Public Policy Analysis and Management (APPAM) honored with the best Ph.D. dissertation award during 2005 Annual Conference in Washington DC

Selected Participant, United Nations Environment Program, Islamabad (1999)

A seminar on “ISO 14000 and standard environmental management systems”

Fellowship Awardee, Regional Environmental Management, Rhede Germany (1997)

Konrad Adenauer Foundation awarded a month-long fellowship to participate in a seminar on regional environmental management held in Rhede, Germany

PROFESSIONAL ASSOCIATIONS

- Association for Public Policy Analysis and Management
- American Association for the Advancement of Science
- American Geophysical Union
- American Political Science Association
- American Society for Public Administration
- Behavioral Science & Policy Association
- Computational Social Science Society of America
- Earth System Governance
- International Comparative Policy Analysis Forum
- International Research Society for Public Management
- International Society of Ecological Economics
- Public Management Research Association
- Transportation Research Board

UNIVERSITY AND COMMUNITY SERVICE (Selected)

- **Academic Editor, PLOS One**, since 2014. See <http://journals.plos.org/plosone/static/editorial-board>
Subject Areas: *Science policy and economics, Social sciences, Social anthropology, Sociology, Computational sociology, Economics, Economic development, Cost-benefit analysis, Spatial economic analysis, Political science, Computer and information sciences, Computer modeling, Computerized simulations, Earth sciences, Atmospheric science, Geography, Political geography, Economic geography, Human geography, Social geography, Ecology and environmental sciences, Environmental economics, Environmental geography, Nature-society interactions, Energy and power, Mathematical economics, Applied mathematics, Algorithms*

- **Member, Scientific Review Committee (SRC)**, National Socio-Environmental Synthesis Center (SESYNC), 2014-17
- **Associate Editor and Member Editorial Board**, Complexity, Governance and Networks
- **Member** Shelburne Planning Commission, 2017-19
- **Member** SWARM Development Group
- **Member** Advisory Board THINKMD
- **Member** Search Committee Assistant Professor CDAE, 2017-18
- **Member** Professional Standards Committee, College of Agriculture and Life Sciences, 2017-20
- **Lead Organizer** SwarmFest2016: 20th Annual Meeting on Agent-Based Modeling & Simulation. Burlington VT. July 31- August 2, 2016.
- **Member** Complex Systems tenure track search committee, 2013-14
- **Member** 5th year review committee for Dean of College of Agriculture and Life Sciences (CALS)
- **Member** Power Systems tenure track search committee, 2012-13
- **Chair** Awards Committee, College of Agriculture and Life Sciences, 2015-17
- **Member** Awards Committee, College of Agriculture and Life Sciences, 2011-14
- **Member** Internal Governance Committee, Institute for Environmental Diplomacy and Security at the University of Vermont 2010-Present
- **Member** Trans-disciplinary Research Initiative (TRI) Committee on Complex Systems 2009-10
- **Member** MPA Core Competency Committee 2009
- **Senator** Academic Senate, San Jose State University 2007-2008
- **Member** Policy Committee on Professional Standards, San Jose State University 2007-08
- **Member** College of Social Science Curriculum Committee 2006-2008
- **Lead Organizer** for an International Workshop on “Impact of Weather and Climate on Society Affairs” held from November 24-26, 2005 in Islamabad, Pakistan. Collaborators, Michael Glantz (NCAR) and Zafar Adeel (UNU)
- **Student Representative** on a search committee for hiring Assistant Professor of Environmental Ethics in the School of Public Policy, Georgia Institute of Technology (November 2002 – April 2003)

PEER REVIEWED JOURNAL REFEREE

- AI and Society (1)
- Annals of the American Association of Geographers (1)
- Atmospheric Environment (1)
- Climatic Change (2)

- Complexity Governance and Networks (2)
- Computational & Mathematical Organization Theory (2)
- Conservation Biology (3)
- Disasters Journal (2)
- Ecological Economics (3)
- Ecosystem Services (1)
- Ecosystem Services (1)
- Environment and Resource Economics (1)
- Environmental Engineering Science (1)
- Environmental Monitoring and Assessment (1)
- Environmental Science & Policy (1)
- Hydrology and Earth System Sciences (1)
- Islamabad Policy Research Institute (IPRI) Journal (1)
- Journal of Agricultural and Environmental Ethics (2)
- Journal of Air and Waste Management Association (2)
- Journal of Communication (1)
- Journal of Environmental Management (4)
- Journal of Environmental Psychology (2)
- Journal of Mountain Science (1)
- Journal of Policy & Complex Systems (1)
- Journal of Policy Analysis and Management (1)
- Journal of Public Administration Research & Theory (1)
- Natural Hazards (1)
- Population and Environment (1)
- Public Administration (1)
- Public Administration Quarterly (1)
- Public Administration Review (1)
- Public Library of Science (PLOS ONE) (5)
- Public Management Review (2)
- Public Performance and Management Review (3)
- Public Understanding of Science (3)
- Research in Transportation Business and Management (1)
- Safety Science (1)
- Science of the Total Environment (1)
- Society and Natural Resources (1)
- The Hague Journal of Diplomacy (1)
- Transportation Research Record (7)

POST-DOCTORAL & THESIS ADVISEES (* signifies acted as lead advisor or co-advisor)

Post-doctoral: Yusiou Tsai* (UVM); Steve Scheinert (UVM); Ahmed Hamed* (UVM); Rebecca Pincus* (UVM); Jory Hecht* (UVM), Elizabeth Doran* (UVM), Patrick Bitterman (UVM)

Ph.D.: Eric L. Garza (Natural Resources UVM); Stephen Posner (Natural Resources UVM); Philip Halteman (Natural Resources UVM); Christopher Clement* (Natural Resources UVM); Dan Fredman (Natural Resources UVM); Courtney Hammond* (Natural Resources UVM), Linyuan Shang* (Natural Resources UVM), Eduardo Rodriguez (Natural Resources UVM); Kristin Raub* (Natural Resources UVM); Fahimeh Bahrami (Education Policy UVM), Sarah Coleman (Plant & Soil Science UVM), Shang Wu (Economics University of Delaware), Tracey McCowen (Natural Resources UVM), Andrew Jones (Education Policy UVM), Doug Denu* (Computer Science UVM), Kevin Andrew* (Computer Science UVM)

MPA: Sawyer McKinley (UVM); Dan Kent (UVM); Drake Turner (UVM); Matt Burke* (UVM)

M.S. in Community Development and Applied Economics: Matt Tucker (UVM); John Woodward (UVM); Richard Nam (UVM); Matt Putnam (UVM); Dan Keeney* (UVM); Jenn Miller (UVM); Deandra Perrucio* (UVM)

M.S. in Natural Resources: Nathaly Agosto Filion (UVM), Ken Brown (UVM), Amanda Egan (UVM), Sam Carlson (UVM), Timothy Pede (UVM), Qing Ren* (UVM)

M.S. in Food Systems: Cecile Reuge(UVM), Serge Wiltshire (UVM)

M.S. in Environmental Studies: Ada Marquez-Gonzalo (SJSU), Vani Rao (SJSU)

CONSULTING ASSIGNMENTS

09/2015 – 06/2016 **Consultant** on a NOAA funded project “El Nino Ready Nations” in ten countries including Pakistan, Philippines, Mexico, South Africa, Cuba, Ethiopia

05/2011 – 06/2011 **Consultant** ARD, Inc. on a US-AID funded “Governance Enhance Project,” Guyana

NEWSPAPER ARTICLES, BLOGS AND PUBLIC ENGAGEMENT VIDEOS

- Asim Zia, Caitlin Waddick (2015) *Climate policy needs a new vision*. Appeared at Sci Dev Net on October 14, 2015. <http://www.scidev.net/global/opinion/climate-change-policy-vision-unfccc.html>

- Asim Zia (2015) *Stimulating decentralized markets in the energy sector*. Appeared in the Express Tribune with the International New York Times on January 15, 2015. <http://tribune.com.pk/story/827041/stimulating-decentralised-markets-in-the-energy-sector/>
- Asim Zia (2015) *The rhetoric & reality of the Summit on Countering Violent Extremism*. Appeared in the Express Tribune with the International New York Times on March 5, 2015. <http://tribune.com.pk/story/847853/the-rhetoric-reality-of-the-summit-on-countering-violent-extremism/>
- Interview with BBC Urdu service from UNFCCC COP 20 meeting in Lima, Peru, aired on December 12, 2014. <http://www.awaztoday.tv/News-Talk-Shows/73123/Sairbeen-12th-December-2014.aspx>
- Asim Zia (2013) *Post-Kyoto Climate Governance: Confronting the Politics of Scale, Ideology and Knowledge*. Gund Institute of Ecological Economics (March 22, 2013). Made widely available by Regional Educational Television Network at <http://www.retn.org/show/asim-zia-post-kyoto-climate-governance>
- Asim Zia (2012) *Governing critical transitions in the earth system*. Delivered at TEDxUVM 2012. <https://www.youtube.com/watch?v=6eUBPXL-l80>
- Asim Zia, Stuart Kauffman (2012) *A view from Doha: The time to tackle climate change is now*. <http://www.npr.org/sections/13.7/2012/12/07/166720029/a-view-from-doha-the-time-to-tackle-climate-change-is-now>
- Asim Zia, Stuart Kauffman (2011) *One world government? Not so fast!* Appeared in the NPR's 13.7 cosmos & culture on September 6, 2011. <http://www.npr.org/sections/13.7/2011/09/06/140212789/why-we-need-adaptive-decentralized-and-democratically-anchored-governance>
- Asim Zia (2011) *Cross-scale value trade-offs in managing socio-ecological systems*. Gund Institute for Ecological Economics. <https://www.youtube.com/watch?v=6eUBPXL-l80>