

## CURRICULUM VITAE (08-31-2017)

**Christian (Chris) S. Renschler**

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### **Work Address:**

Department of Geography

University at Buffalo

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Buffalo, NY 14261, USA

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### **Academic Qualifications**

- 2000 Ph.D. in Natural Sciences (Dr. rer. nat.), University of Bonn, Germany. *Magna cum laude*  
Dissertation: *Strategies for implementing natural resources management tools*  
Major: Geography; Minor: Soil Science
- 1996 M.Sc. in Geoecology (Dipl.-Geoökol.), Technical University of Braunschweig, Germany. *Magna cum laude*  
Thesis: *Soil erosion risk mapping by means of GIS and hydrologic modeling.*  
Majors: Geoecology, Soil Sciences, Agroecology, and System Analysis  
Minors: Remote Sensing and Ecology
- 1992 B.Sc. in Geoecology, Technical University of Braunschweig, Germany  
Majors: Geoecology, Soil Sciences, Biology, and Mathematics/Statistics  
Minors: Chemistry and Mineralogy/Geology

### **Fellowships and Awards**

- 2017 Guest Professor of Integrated Environmental Management, Department of Geography and Regional Research, Faculty of Earth Sciences, Geography and Astronomy, University of Vienna, Vienna, Austria.
- 2015 Fulbright Visiting Professor Fellowship, Department of Landscape, Spatial and Infrastructure Sciences (RaLI), Institute of Surveying, Remote Sensing & Land Information (IVFL), Univ. of Natural Resources and Life Sciences (BOKU), Vienna, Austria. J.W. Fulbright Foreign Scholarship Board, Washington, DC
- 2015 Co-operative Research Programme Fellowship, Department of Water, Atmosphere and Environment (WAU), Institute of Hydraulics and Rural Water Management (IHLW), Univ. of Natural Resources and Life Sciences (BOKU), Vienna, Austria. Organisation for Economic Co-operation and Development (OECD), Paris, France
- 2013 Community Scholar-in-Residence Fellowship, Civic Engagement and Public Policy Strategic Initiative, University at Buffalo. Recipient: Michael Gates, Director of Emergency Management, Seneca Nation of Indians
- 2012 "Geography Matters" Video Competition (2<sup>nd</sup> Place Winner), Association of American Geographers (AAG), Washington, DC.  
*Available at: <https://www.youtube.com/watch?v=KGcjdhosOdU>*
- 2011 Quake Summit 2011 Media Competition - Video Award (Outreach), G.E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES)/ MCEER (Multidisciplinary Center for Earthquake Engineering Research), Purdue University, West Lafayette, IN
- 2009 ASABE Superior Paper Award, American Society of Agricultural & Biological Engineers (ASABE), St. Joseph, MI
- 2008 Visiting Fellow in Geographical Sciences, School of Geography, Planning and Architecture, University of Queensland, Brisbane, Australia

2007 SSSA Soil & Water Conservation Young Scholar Award, Soil Science Society of America (SSSA), Madison, WI

### **Positions Held**

Since 2007 Associate Professor (with tenure), Department of Geography, University at Buffalo

2001-2007 Assistant Professor (tenure-track), Department of Geography, University at Buffalo

2000-2001 Post-doctoral Researcher / Research Associate, Department of Agricultural & Biological Engineering/US Dept. of Agriculture-Agricultural Research Service (USDA-ARS) National Soil Erosion Research Laboratory (NSERL), Purdue University, West Lafayette, IN

1999 Visiting Scientist, Department of Earth & Atmospheric Sciences, Purdue University

1996-1998 Research Assistant, Department of Geography, University of Bonn, Bonn, Germany

1994-1996 Associated Researcher Trainee, Water Resources Division, Intl. Institute for Geo-Information Sciences & Earth Observation (ITC), University of Twente, Enschede, The Netherlands

1993-1994 Research/Teaching Assistant, Inst. Photogrammetry & Remote Sensing, Technical University of Braunschweig, Braunschweig, Germany

### **Visiting Scholar Positions**

2017 2 months at Department of Geography and Regional Research, Faculty of Earth Sciences, Geography and Astronomy, University of Vienna, Vienna, Austria

2015-2016 4 months at Institute of Surveying, Remote Sensing & Land Information (IVFL), Univ. Natural Resources and Life Sciences (BOKU), Vienna, Austria

2015-2016 4 months at Institute of Hydraulics and Rural Water Management (IHLW), Univ. Natural Resources and Life Sciences (BOKU), Vienna, Austria

2013 1 week at College of Resource, Environment and Tourism, Capital Normal University, Beijing, China

2008 6 months at School of Geography, Planning and Architecture (GPA), University of Queensland, Brisbane, Australia

2003-2004 8 months at College of Agriculture and Life Sciences (CALS), Cornell, Ithaca, NY

### **Current Employment (Details)**

Since 2007 Associate Professor (tenured), Department of Geography, University at Buffalo, Buffalo, NY

*Duties* - Advance Earth Systems Science/GIScience programs  
- Director of Geographic Information and Analysis Laboratory (GIAL)

*Achievements* - Designed and led the development of a collaborative, internet-based Geospatial Project Management Tool (GeoProMT) for research, teaching and outreach  
- Created research, teaching and local community outreach project in the Cattaraugus Creek watershed for integrated extreme events modeling

Since 2015 Faculty Member  
Institute for Sustainable Transportation and Logistics (ISTL)  
University at Buffalo, Buffalo, NY

- Duties* - Advise ISTL leadership on designing various research, teaching and outreach activities
- Since 2010 Faculty Member (one of 12), MCEER (Multidisciplinary Center for Earthquake Engineering Research) — From Earthquake Engineering to Extreme Events, University at Buffalo, Buffalo, NY
- Duties* - Advise MCEER leadership and determine strategic direction of the Center
- Achievements* - Nominated and elected to join as one of two non-structural engineers to co-lead institutional initiatives on community resilience research
- Since 2006 Research Scientist, MCEER (Multidisciplinary Center for Earthquake Engineering Research)-From Earthquake Engineering to Extreme Events, University at Buffalo, Buffalo, NY
- Duties* - Co-lead/Lead Remote Sensing Task Force and Community Resilience Research
- Achievements* - Lead the design and development of the quantitative PEOPLES Resilience Framework  
 - Contributed locally, nationally and internationally to efforts in damage assessment as well as establishing base-line data and modeling efforts to enhance community resilience (e.g. regional floods, Hurricanes Katrina & Rita, Haiti Earthquake)  
 - Contributed to Policy Brief on Research Findings on Community Resilience and their Implications for Federal Policymaking for administrative and congressional members on Capitol Hill
- Since 2005 Co-Founder and Advisory Board Member (one of 8), Center for GeoHazards Studies, University at Buffalo
- Duties* - Advise center leadership and vote on changes to institutional procedures
- Achievements* - Contributed actively to make this the fastest growing center by pursuing and receiving large research grant awards on cyber-infrastructure research
- Since 2001 Research Scientist, Natl. Center for Geographic Information & Analysis (NCGIA), University at Buffalo, Buffalo, NY
- Duties* - Advise NCGIA leadership and determine strategic direction of the centre  
 - Develop research on GIScience and environmental modeling/management  
 - Serve as faculty advisor for National Science Foundation funded Integrative Graduate Education and Research Traineeship (IGERT) program in GIScience
- Achievements* - Led various federally-funded research projects on soil and water conservation and developed a series of GIS tools for natural resources management

### **Past Employment (Details)**

2001-2007 Assistant Professor (tenure-track), Department of Geography  
 University at Buffalo, Buffalo, NY

- Duties* - Establish research and teaching curriculum in using GIS, remote sensing and process-based environmental models for natural resources management
- Achievements* - Founded and lead Landscape-based Environmental Systems Analysis & Modeling (LESAM) Lab to become the largest funded-research unit in the department with local and international undergraduate, graduate and post-doc researchers
- Created new graduate and undergraduate program in Earth Systems Sciences (ESS)
  - Designed and Created a new Professional Science Masters Advanced Certificate Program in GIS and Environmental Analysis
  - Substantially revised existing Physical Geography and Applied GIS Program through design- and project-based courses (studio-style) offered to interdisciplinary advanced undergraduate and graduate students
  - Co-Founded internationally-reputed Center for GeoHazards Studies
  - Programmed and developed the ArcView version of GeoWEPP that has been used nationally and internationally for soil and water conservation by a large number of researchers, teachers, and practitioners in academia, government and industry
- 2000-2001 Post-doctoral Researcher / Research Associate, US Department of Agriculture-Agricultural Research Service (USDA-ARS) National Soil Erosion Research Laboratory (NSERL) / Department of Agricultural & Biological Engineering Purdue University, West Lafayette, IN
- Duties* - Lead GIS-model research in the Water Erosion Prediction Project (WEPP)
- Achievements* - Developed and validated prototype of the Geospatial Interface for WEPP soil erosion model for representative hillslopes and small watersheds
- 1999 Visiting Scientist, Department of Earth & Atmospheric Sciences Purdue University, West Lafayette, IN
- Duties* - Establish and lead GIS-model research effort in regionalization of soil erosion
- Achievements* - Developed a regionalization concept for predicting water and sediment fluxes in agricultural watersheds using GIS-derived representative hillslope units
- 1996-1998 Research Assistant, Department of Geography / Institute of Geoecology University of Bonn, Bonn, Germany / Technical University of Braunschweig, Braunschweig, Germany.
- Duties* - Coordinated GIS research effort in regionalization of hydrology
- Achievements* - Contributed to the development of a regionalization concept for predicting large-scale water fluxes using a few representative eco-hydrologic units
- 1994-1996 Associated Researcher Trainee, Water Resources Division International Institute for Geo-Information Sciences & Earth Observation (ITC), Enschede, The Netherlands
- Duties* - Research and teaching assistance in water resources management and GIS

*Achievements* - Created course and case studies for the Integrated Land and Water Information System (ILWIS; an open-source GIS & Remote Sensing software)

1993-1994 Research/Teaching Assistant, Inst. Photogrammetry & Remote Sensing, Technical University of Braunschweig, Braunschweig, Germany

*Duties* - Research and teaching assistance in Photogrammetry and Remote Sensing

*Achievements* - Contributed to 3-D photogrammetric architectural model of the Duomo of Siena

### **Supervision of Visiting Scholars and Research Scientists**

2014 Dr. Haddad, Bouchra (2 months); Profesora Ayudante Doctor, Facultad de Ciencias Ambientales y Bioquímica, Universidad de Castilla-La Mancha, Toledo, Spain

2011 Dr. Wang, Yanbing (6 months); Associate Professor, College of Resource, Environment and Tourism, Capital Normal University Capital Normal University, Beijing, China

2010 Hayes, Graham (2 years), Adjunct Faculty, University at Buffalo, Buffalo, NY

2007 Dr. Tanarro García, Luis Miguel (4 months); Profesor Contratado Doctor Interino, Dept. de Análisis Geográfico Regional y Geografía Física, University, Complutense, Madrid, Spain

### **Current Ph.D. Supervision (University at Buffalo)**

Chaudhary, Manita (Geography)

Yasumiishi, Misa (Geography)

### **Ph.D. Dissertation/Theses Committees Chaired (University at Buffalo)**

2016 Bajo, Jorge. *Reducing Social Vulnerability through Integrated Volcanic Hazard Mapping-Santa Ana (Ilamatepec) Volcano, El Salvador*. Since 2014: Assistant Professor, Erie County Community College, Buffalo, NY. Since 2015 also: Lecturer, Geography and Planning, Buffalo State College, Buffalo, NY

2015 Rios, Fernando. *Uncertainty and Sensitivity Analysis of Boundaries for Vector-Based Features in Geographical Information Systems*. Since 2015: Research Data Management Fellow at the Council on Library and Information Resources. Johns Hopkins University, Baltimore, MD.

2012 Minkowski, Martin. *Incorporating Advancements in Science, Technology, and User Demands into State-of-the-Art Earth-Systems Modeling to Empower Novel-GIS Users in Natural Resource Decision Making: A Geographic Information Science Perspective*. Since 2012: Product Engineer, ESRI Inc., Redlands, CA.

2012 Roussie, Suzanne. *A Spatial and Dynamic Analysis of Wetland Resilience in Coastal Louisiana*. 2012-2014: Research Staff, New York State/USDA, Lockport, NY. Since 2015: GIS/PACS Data Specialist, Praxair, Buffalo, NY.

2012 Majka, Kevin. *Incorporating Drive Behavior in Crash Prediction Modeling*. Since 2010: Research Scientist, Center for Transportation Injury Research (CenTIR), Calspan University at Buffalo Research Center (CUBRC), Buffalo, NY.

2008 Lee, Taesoo. *Modeling Best Management Practices in a small watershed using process based modeling approaches and GIS - The cases of row cropping, filter strip, and grassed waterway*. 2007-2011: Assistant Research Scientist, Spatial Science Laboratory, Ecosystem Science and Management Department, Texas A&M University, College Station, TX. Since 2011: Assistant Professor, Department of Geography, Chonnam National University, Gwangju, South Korea

- 2007 Miller, Mary Ellen (PhD in Civil, Structural, and Environmental Engineering, co-chair with Joseph Atkinson). *Remote Sensing and Hydrological Modeling of Burn Scars*. 2007-2011: Post-doctoral Research Scientist, Colorado State University, Fort Collins, CO;  
Since 2011: Research Scientist, Earth, Planetary and Space Sciences Institute (EPSSI), Michigan Technological University, Houghton, MI.
- 2006 Namikawa, Laercio M. *Multiple Representations of Elevation for Dynamic Process Modeling*.  
Since 2006: Senior Research Scientist, Divisão de Processamento de Imagens (DPI), Instituto Nacional de Pesquisas Espaciais (INPE; Brazilian Space Agency), São José dos Campos, Brazil.
- 2004 Sorokine, Alexandre. *Representation of Scale in Geographic Information Science*.  
Since 2004: Research Scientist, Earth, Planetary and Space Sciences Institute (EPSSI), Oak Ridge National Laboratory, Oak Ridge, TN.

**Ph.D. Dissertations/Theses - 2<sup>nd</sup> Advisor (Foreign Exchange Students)**

- 2017 Melaku, Nigus Demelash. *Assessing the impact of stone bunds on runoff and erosion processes in the Northern Ethiopian Highlands*. Institute of Hydraulics and Rural Water Management (IHLW), Univ. of Natural Resources and Life Sciences (BOKU), Vienna, Austria.
- 2015 Calvo Cabrerizo, Letitia. PhD in Physical Geography (1<sup>st</sup> Advisor: David Palacios): *Hidrovolcánicos en el Volcán de Fuego de Colima, México*. Universidad Complutense, Madrid, Spain.
- 2013 Llaves, Alejandro. PhD in Geographic Information Science (1<sup>st</sup> Advisor: Werner Kuhn): *Integration of Geosensor Data by means of an Event Abstraction Layer*. University of Münster, Münster, Germany.
- 2013 Stasch, Christopher. PhD in Geographic Information Science (1<sup>st</sup> Advisor: Edzer Pebesma): *Spatio-temporal Aggregation in the Sensor Web*. University of Münster, Münster, Germany.
- 2012 DeFelice, Giorgio. PhD Degree in Geographic Information Science (1<sup>st</sup> Advisor: Christian Freksa): *A reasoning system to derive spatial information from mixed quantitative-qualitative-semantic representations*. University of Bremen, Bremen, Germany.
- 2012 Devaraju, Anusuriya. PhD Degree in Geographic Information Science (1<sup>st</sup> Advisor: Werner Kuhn): *Representing and Reasoning about Geographic Occurrences in the Sensor Web*. University of Münster, Münster, Germany.
- 2009 Walkowski, Alexander Christoph. PhD Degree in Geographic Information Science (1<sup>st</sup> Advisor: Ulrich Streit): *Modellbasierte Optimierung mobile Geosensornetzwerke für raumzeitvariante Phänomene*. University of Münster, Münster, Germany.
- 2007 Muñoz Salinas-Esperanza. PhD in Physical Geography (1<sup>st</sup> Advisor: David Palacios): *Los Lahares del Popocatepetl: Obtencion y Tratamiento de la Información Para la Prevención de Riesgos*. Universidad Complutense, Madrid, Spain.

**Ph.D. Dissertations/Theses – Committee Member (University at Buffalo)**

- 2017 Bell, Marissa. PhD (ABD) in Geography (Chair: Trina Hamilton). *Energy Justice and Consent: The Implementation and Evaluation of Consent in Nuclear Waste Siting Policy and Process*.
- 2014 Lewis, Tonya. PhD in Physical Geography (Chair: Sean Bennett): *Developing Effective Environmental Justice Policies through a Synergistic Analysis of Space, the Environment, & the Law*.

- 2013 Frazier, Amy. PhD in Geography (Co-chairs: David Mark and Leo Wang): *Transforming Landscape Ecology Evaluations of Species Invasions Using Sub-Pixel Remote Sensing Classifications.*
- 2011 Chien, Huichen. PhD in Geography (Chair: Scott Mackay): *Time-Series Analysis for Watershed Scale Predictions of Water Quantity and Quality Export from Agricultural Watersheds.*
- 2009 Hess, Dale. PhD in Geology (Chair: Jason Briner): *Geospatial analysis of controls on subglacial bedform morphometry in the New York Drumlin Field – implications for Laurentide Ice Sheet dynamics.*
- 2007 Stinton, Adam. PhD in Geology (Chair: Michael Sheridan): *Effects of changes in valley geomorphology on the behavior of volcanic mass-flows.*
- 2005 Rayburg, Scott. PhD in Geography (Chair: Athol Abraham): *3-D Morphologic And Hydraulic Characteristics of Pools, Riffles and Pool-Riffle Sequences.*
- 2004 Hu, Shixiong. PhD in Geography (Chair: Athol Abraham): *Resistance to Overland Flow on Plane and Rough Beds.*

**Ph.D. Dissertations/Theses – External Reader (Indian Inst. of Technology - IIT Roorkee)**

- 2015 Mondal, Arun. PhD in Water Resources Development and Management: *Assessment of Climate Change and Landuse Impact on Soil Erosion and Soil Carbon Loss.*
- 2011 Nikam, Bhaskar K., PhD in Water Resources Development and Management: *Conjunctive Use Planning of Planning of Water Resource using RS & GIS.*
- 2010 Gaikwad, Pravin Chandra G.; PhD in Water Resources Development and Management: *Leachate transport from fly ash slurry pond.*
- 2007 Singh, Kangjam Sonamani; PhD in Water Resources Development and Management: *Soil erosion modelling in Loktak Lake catchment: an integrated approach.*

**M.A./M.S. Committees/Theses Chaired (University at Buffalo)**

- 2017 Bidell, Ben (MA), Jared Flagler (MA)
- 2016 Yuming, Zou (MS)
- 2015 Park, Jae Young (MS) and Yasumiishi, Misa (MS, now PhD Student)
- 2014 Brown, Patrick (MA), Lui, Natalie (MA), Zang, Jin (MA), Xiong, Haoyi (MS, now PhD Student at the University of Iowa), and Cao, Yanjia (MS, now PhD Student at the University of Maryland)
- 2013 Robitaille, Zachary (MA), Gu, Shengnan (MS), Clarkson, Brian (MS), and Lu, Meng (MS, now PhD Student at University of Muenster, Germany)
- 2012 Li, Fang (MA), Mendieta, Ryan (MA), Chen, Weiyi (MA), and Wang, Zhihao (MS)
- 2011 Perry, Heidi (MA), Ameroso, Emmanuelle (MS), Yang, Jiue-an (MA, now PhD Student ABD at San Diego State University/University of California – Santa Barbara)
- 2010 Collins, Heather (MA), and Evans, Phillip (MA)
- 2009 Yu, Haifeng (MA)
- 2008 Sheehan, David (MA)
- 2007 Sambandhan, Loganathan Vijay (MA)
- 2006 Hoerle, Gary Allen (MA), Roussie, Suzanne (MA, completed PhD at the University at Buffalo), and Minkowski, Martin (MA, completed PhD at the University at Buffalo)
- 2005 Malinowski, Matthew (MA), Harvey, Merrissa (MA), and Mussel, Jennifer (MA, Professional Science Masters Certificate)
- 2002 Koopman, Marc (MA)

### **Current MA./MS. Supervision (University at Buffalo)**

Lynch, Jonathan (MA Geography)  
O'Brien, Brittany (MS Geography)  
Zhang, Han (MS Geography)

### **Undergraduate Supervision (University at Buffalo)**

2017 Nathan Long (Environmental Geosciences)  
2016 Watson, Samuel (Social Sciences Interdisciplinary/Minor: Geographic Info. Systems)  
2014 Adam, Matthew (Geography)  
2014 Harary, David C. (Geography/International Trade/Economics)  
2014 Little, Susan (Environmental Geosciences)  
2012 Burke, Kyle (Pharmacy)  
2010 Saunders, Patrick (Geography/Minor: Cultural Anthropology)  
2008 Martin, Christopher (Geography/Minor: Computer Science)

### **TEACHING**

#### **University Credits Taught (\*newly introduced courses that are taught in studio style)**

Courses	Number Title (credits)	credits (# students)
Undergrad	Geo101 Earth System Science I (3)	36 (2,185)
	Geo352 Introduction to Soil Sciences (3)	24 (234)
Cross-listed	Geo444/547 Advanced Earth System Science (3)*	6 (20/26)
	Geo470/570/Law777 Integr. Environmental Management (3)*	33 (116/104)
	Geo475/575 Landscape Modeling with GIS (3)*	39 (54/129)
Graduate	Geo504 GIScience and Environmental Assessment (3)*	6 (14)
	Geo655 Environm. Assessment w. GIS & Remote Sensing (3)*	3 (8)
	BOKU 857003/857004 Geospatial Project Management (2)*	2 (8)
	Univ. Vienna 290174-1 Integrated Environmental Management	3 (11)
	Univ. Vienna 290175-1 Process-based soil/water conserv. modeling*	3 (10)

### **AWARDS AND GRANTS RECEIVED [categories indicated in parentheses]**

PI Total: \$718,954  
PI (sub-awards) Total: \$608,965 + €11,409  
Co-PI Share Share: ~\$369,760  
Senior Personnel Share: ~\$418,623

#### **Principal Investigator (PI) (\$718,954)**

2015-2016 Integrated Environmental Modeling and Management with GIS. The PEOPLES' Resilience Framework: Quantifying Sustainable Soil and Water Conservation. J. William Fulbright Foreign Scholarship Board (FSB), Washington, DC. Fulbright Visiting Professor-University of Natural Resources and Life Sciences, Vienna, Austria. (PI: Renschler, C. S.) \$20,800 [research, competitive, federal].  
2015-2016 Quantification of impacts of and on soil and water management on community resilience and sustainable development. Co-operative Research Programme Fellowship, Organisation for Economic Co-operation and Development OECD), Paris, France. (PI: Renschler, C. S.), \$10,000 [research, competitive].  
2013-2014 Nomination for Community Scholar-in-Residence Fellowship: Michael Gates, Director of Emergency Management of the Seneca Nation of Indians. UB2020 Civic Engagement and Public Policy Strategic Initiative, University at Buffalo, Buffalo, NY (PI: Renschler, C. S.), \$3,000 [research, competitive].



- 2008 Application for Visiting Fellow in Geographical Sciences. University of Queensland, School of Geography, Planning and Architecture (GPA), Brisbane, Australia (PI: Renschler, C. S.), \$12,000 [research, competitive].
- 2007-2010 Community Resilience Index – A Conceptual Framework and Implementation Strategy. National Oceanic and Atmospheric Administration (NOAA), Washington, DC (PIs: Renschler, C. S., Eguchi, R. T, Chang, S., & Pine, J. C.), \$270,000 [research, competitive, federal].
- 2007-2008 Soil Testing Kits. College of Arts and Sciences (CAS) Equipment Needs Related to Courses. University at Buffalo, Buffalo, NY (PI: Renschler, C. S.), \$5,000 [teaching].
- 2006-2007 m<sup>4</sup>r<sup>4</sup> – A Collaborative Platform for Supporting Extreme Events Research. National Science Foundation (NSF) Engineering Research Center (ERC) MCEER, University at Buffalo, Buffalo, NY (PIs Renschler, C. S., Sheridan, M. F, & Patra, A.), \$36,945 [research, competitive, federal through flow]
- 2006-2007 Implementation of the Geospatial Project Management Tool (GeoProMT). Educational Technology Center (ETC) Education Technology Grant. University at Buffalo, Buffalo, NY (PIs: Renschler, C. S. & Sheridan, M. F.), \$4,000 [teaching, competitive]
- 2005-2007 Geo-Spatial Wildland Management Tool – Cumulative Watershed Effects Extension. Joint Fire Science Program (JFSP): U.S. Dept. of Interior/U.S. Dept. of Agriculture (USDA) Forest Service, Washington, DC (PIs: Renschler, C. S., & Elliot, W. J.), \$132,752 [research, competitive, federal].
- 2005-2006 Geomorphology and Ecosystems – 36<sup>th</sup> Binghamton Geomorphology Symposium (BGS 2005). Geography and Spatial Sciences (GSS), National Science Foundation (NSF), Washington, DC (PI: Renschler, C. S.), \$25,791 [conference, competitive, federal].
- 2005-2006 Binghamton Geomorphology Symposium. Conversations in the Disciplines, State University of New York (SUNY), Albany, NY (PIs: Renschler, C. S., Jacobi, R., & Lasker, H.), \$3,000 [conference, competitive].
- 2005-2006 BGS “Geomorphology and Ecosystems”. College of Arts and Sciences Fund for Conferences, University at Buffalo, Buffalo, NY (PI: Renschler, C. S.), \$2,500 [conference].
- 2005-2006 Geo-Spatial Project Management Tool (GeoProMT) for Interdisciplinary Class Work & Project Collaboration. Educational Technology Center (ETC) Education Technology Grant, University at Buffalo, Buffalo, NY (PIs: Renschler, C. S. & Sheridan, M. F.), \$8,000 [teaching, competitive].
- 2004-2006 Geo-Spatial Wildland Management Tool. Joint Fire Science Program (JFSP): U.S. Dept. of Interior/ U.S. Dept. of Agriculture (USDA) Forest Service, Washington, DC (PIs: Renschler, C. S., & Elliot, W. J.), \$134,019 [research, competitive, federal].
- 2003-2004 Environmental Modeling of Burn Scars for Erosion Risk Assessment. Environmental Science Interdisciplinary Research Program, Environment & Society Inst. (ESI), University at Buffalo, Buffalo, NY (PIs: Renschler, C. S., Atkinson, J., & Sultan, M.) \$14,147 [research, competitive].
- 2002-2003 Geo-spatial Dynamic Response Assessment Tool (GeoDRAT). Environmental Science Interdisciplinary Research Program, Environment & Society Inst. (ESI), University at Buffalo, Buffalo, NY (PIs: Renschler, C. S., & Sheridan, M. F.), \$10,000 [research, competitive].
- 1999 Graduate Student Stipend – DAAD Fellowship. German Academic Exchange Service - Deutscher Akademischer Austauschdienst (DAAD), Bonn, Germany (PI: Renschler, C. S.), \$18,000 [research, competitive].

- 1997 International Conference Travel Award. Donors' Association for Promoting Sciences and Humanities in Germany-Stifterverband für die Deutsche Wissenschaft, Essen, Germany (PI: Renschler, C. S.) \$2,000 [conference, competitive].
- 1994 Graduate Student Fellowship. European Union (EU) Community Program for Education & Training in Technology, Brussels, Belgium (PI: Renschler, C. S.), \$6,000 [research fellowship, competitive].
- 1994 Travel Award for 43<sup>rd</sup> Scottish Universities Summer School in Physics "Determination of Geophysical Parameters from Space. Dundee, United Kingdom". Advanced Study Institute (ASI), North Atlantic Treaty Organization (NATO), Brussels, Belgium (PI: Renschler, C. S.) \$1,000 [fellowship, competitive].

**Principal Investigator (sub-awards \$608,965 + €11,409)**

- 2017 Developing A Watershed Model For The Black Creek, NY. U.S. Army Corps of Engineers (USACE), Buffalo, NY (PI: Renschler, C. S.), \$38,000 [research, federal; currently put on hold]
- 2017 Soil Erosion Modelling Session of RAS5069 Workshop in Nanning, China. Joint Food and Agriculture Organization (FAO) / International Atomic Energy Agency (IAEA), Division of Nuclear Techniques in Food and Agriculture, United Nations, Vienna, Austria (PI: Renschler, C.S.), €3,000 [conference, invited, international]
- 2017 Cs-Brochure – Additions, Updates and Revisions. Joint Food and Agriculture Organization (FAO) / International Atomic Energy Agency (IAEA), Division of Nuclear Techniques in Food and Agriculture, United Nations, Vienna, Austria (PI: Renschler, C.S.), €3,000 [publication, invited, international]
- 2016 Enhancing Regional Capacities for Assessing Soil Erosion and the Efficiency of Agricultural Soil Conservation Strategies through Fallout Radionuclides. Joint Food and Agriculture Organization (FAO) / International Atomic Energy Agency (IAEA), Division of Nuclear Techniques in Food and Agriculture, United Nations, Vienna, Austria (PI: Renschler, C.S.), €2,569 [research, competitive, international]
- 2016 Determination of Hazardous Materials Commodity Flow Patterns. Local Emergency Planning Committee (LEPC)/Hazardous Material Emergency Preparedness (HMEP), Erie County, NY (PIs: Renschler, C. S. & Batta, R.), \$17,000 [research, competitive, federal through flow].
- 2016 RAS/5/069 Complementing Conventional Approaches with Nuclear Techniques towards Flood Risk Mitigation and Post-Flood Rehabilitation Efforts in Asia. International Atomic Energy Agency (IAEA), United Nations, Vienna, Austria (PI: Renschler, C.S.), €1,155 [conference, invited, international]
- 2016 Vulnerability of Agricultural Production Networks and Global Food Value Chains due to Natural Disasters. Co-operative Research Programme on Biological Resource Management for Sustainable Agricultural Systems Trade and Agriculture Directorate. Organisation for Economic Co-operation and Development (OECD), Paris, France. (PI: Renschler, C.S.), €2,385 [conference, invited, international]
- 2012 Superstorm Sandy – Wind and Water Damage Assessment. ImageCat./Federal Emergency Management Agency (FEMA), Washington, DC (PI: Renschler, C. S.), \$25,620 [research, federal through flow].
- 2009-2011 Developing a Long-term Strategy for Integrated Erosion, Runoff, Sediment and Flood Management in the Cattaraugus Creek and Clear Creek Watersheds, NY. U.S. Army Corps of Engineers (USACE), Buffalo, NY (PI: Renschler, C. S.), \$135,000 [research, federal]
- 2008-2010 WEPP/GeoWEPP Distance Learning Modules. U.S. Dept. of Interior Bureau of Land Management (BLM), Denver, CO (PI: Renschler, C. S.), \$87,345 [research, federal]

- 2008 Enhancement of RUSLEII through the Application of High-Resolution Digital Elevation Models. The State of Iowa/U.S. Dept. of Agriculture (USDA) National Tilth Laboratory, Ames, IA (PI: Renschler, C. S.), \$3,000 [research, federal].
- 2006-2008 Modeling sediment yields in the Cattaraugus Creek watershed, NY. U.S. Army Corps of Engineers (US ACE), Buffalo District, Buffalo, NY (PI: Renschler, C. S.), \$90,000 [research, federal].
- 2004-2005 Linking Cornell Cropware with a GIS. Cornell University Nutrient Management Spear Program, Ithaca, NY (PI: Renschler, C. S.), \$9,000 [research].
- 2003-2005 Wildfire Airborne Sensor Program (WASP) Demonstration Project. Rochester Institute of Technology/National Aeronautics and Space Agency (NASA), Rochester, NY (PI: Renschler, C. S.), \$54,000 [research, federal through flow].
- 2001-2005 What are the lasting impacts on water quality projects in agricultural watersheds? Purdue University/U.S. Dept. of Agriculture (USDA) Cooperative State Research, Education and Extension Service (CSREES), Washington, DC (PI: Renschler, C. S.), \$150,000 [research, competitive, federal through flow].

**Co-Principal Investigator (~\$369,760; share given in percentages)**

- 2011-2013 ENVISION-Enhanced Human Social Cultural Behavior (HSCB) Visualization. U.S. Department Of Defense–Office of Naval Research, Washington, DC (PI: Farry, M., Bisantz, A. M., & Renschler, C. S.), \$205,498 (~33%) [research, competitive, federal].
- 2009-2013 Partnership for Innovation–Information Products Laboratory for Emergency Response (IPLER). National Science Foundation (NSF), Washington, DC (PIs: Van Aardt, J.A, Vodacek, T., & Renschler, C. S.), \$720,000 (~33%) [research, competitive, federal].
- 2009-2010 A Framework for Defining and Measuring Disaster Resilience at the Community Scale. National Institute of Standards and Technology (NIST), Washington, DC (PIs: Reinhorn, A. M., Renschler, C. S., & Bruneau, M.), \$69,751 (~50%) [research, competitive, federal].
- 2008-2009 P and N monitoring and modeling in the Cattaraugus Creek Watershed and Lake Erie. New York State Great Lakes Protection Fund (NYGLPF), Albany, NY (PIs: Christopher, S. F., & Renschler, C. S.), \$9,361 (50%) [research, competitive].
- 2007-2008 Conversations in the Disciplines-Natural Disasters in Small Communities: How can we help? State University of New York (SUNY), Albany, NY (PIs: Sheridan, M.F, Pitman, E.B., Patra, A., Renschler, C. S., Csatho, B., & Simpson, N.), \$4,250 (~15%) [conference, competitive].
- 2006-2008 Cattaraugus Creek Multi-County Watershed Protection Strategy. New York Rivers United/U.S. Environmental Protection Agency (EPA) Great Lakes National Program Office, Chicago, IL (Carpenter, B., & Renschler, C. S.), \$30,000 (50%) [research, competitive, federal].
- 2006-2007 Governing the Niagara Escarpment (Renewal). Baldy Center for Law and Social Policy, university at Buffalo, Buffalo, NY (PIs: Schneekloth, L., Shannon, M., Renschler, C. S., Page, W., & Boyer, B.), \$2,000 (~20%) [research, competitive].
- 2005-2006 Governing the Niagara Escarpment: Options for Managing Complex Public-Private Landscapes. Baldy Center for Law and Social Policy, university at Buffalo, Buffalo, NY (PIs: Schneekloth, L., Shannon, M., & Renschler, C. S.), \$4,175 (~30%) [research, competitive].
- 2002 Real-time Monitoring of Land, Lakes, and Atmosphere from Space-borne Observations. Interdisciplinary Research and Creative Activities Fund (IRCAF), University at Buffalo, Buffalo, NY (PIs: Sultan, M., Atkinson, J., & Renschler, C. S.), \$25,000 (~30%) [research, competitive].

### **Senior (salaried) Personnel (~\$418,623 + €19,000; share given in percentages)**

- 2013-2017 Software Infrastructure for Sustained Innovation SI2-SSI: Collaborative Research: Building Sustainable Tools and Collaboration for Volcanic and Related Hazards. National Science Foundation (NSF), Washington, DC (PIs: Patra, A., Bursik, M., Jones, M., Kosar, T., & Valentine, G.), \$1,400,921 (~8%) [research, competitive, federal].
- 2010-2013 Cyber-Enabled Discovery and Innovation (CDI-Type II) VHub: Collaborative Research: Cyberinfrastructure for Volcano Eruption and Hazards Modeling and Simulation. National Science Foundation (NSF), Washington, DC (PIs: Valentine, G., Bursik, M., Jones, M. Calder, E., & Gallo, S.), \$1,906,891 (~8%) [research, competitive, federal].
- 2001-2005 Information Technology Research (ITR/AP+IM): Information Processing for Integrated Observation and Simulation Based Risk Management of Geophysical Mass Flows. National Science Foundation (NSF), Washington, DC (PIs: Patra, A., Sheridan, M. F., Mark, D., Pitman, E. B., & Bloebaum, C.), \$1,924,981 (~8%) [research, competitive, federal].

### **Participating (non-salaried) Faculty (€1,816,855 and \$4,359,676 - UB's share \$3,859,676)**

- 2016-2017 FugnitzSED – Detecting Soil Erosion Hot Spots in the Fugnitz Watershed, Austria. Department of Geography and Regional Research, University of Vienna , Austria (PIs: Pöppel, R., Strauss, P., Renschler, C., & Klik, A.), €19,000 [research, competitive].
- 2015-2018 Information, Integration & Informatics III: Small: From Real-Time Sensor Data Streams to Continuous Data Fields Models: Formal Foundations and Computational Challenges. National Science Foundation, Washington, DC (PIs: Nittel, S., & Egenhofer, M.), \$500,000 [research, competitive, federal].
- 2010-2013 LAHARISK (volcanic debris flows and related floods): in situ flow measurements, rheometry, flow modelling, quantitative assessment of damage, mitigation and financial protection. French National Research Agency-L'Agence nationale de la recherche (ANR), Paris, France (Coordinator: Thouret, J.-C.), €465,043 [research, competitive].
- 2008-2013 International Research Training Group (IRTG): Semantic Integration of Geospatial Information. German Research Foundation-Deutsche Forschungsgemeinschaft (DFG), Bonn, Germany (PIs: Kuhn, W., Freksa, C., & Mark, D.), €832,812 [research, competitive].
- 2003-2010 Integrative Graduate Education and Research Traineeship Program (IGERT) Geographic Information Science. National Science Foundation (NSF), Washington, DC (Mark, D., Sheridan, M. F., Atkinson, J., Zubrow, E. B., & Smith, B.), \$3,859,676 [research, competitive, federal].

### **PUBLICATIONS**

*Note that my own graduate students are marked with \* and by principle put as first authors.*

Science Citation Index (SCI) Articles in Peer-reviewed Journals	29
Science Citation Index (SCI) Chapters in Peer-reviewed Book Series	4
Articles in Peer-reviewed Conference Proceedings	20
Chapters in Refereed Books	10
Refereed Governmental Reports (Scientific and Professional Publications)	11
Entry in Refereed Encyclopedia	1
Computer Software Development for Research, Teaching and Learning	10

Invited Lectures, Seminars, Keynotes and Conference Panels	108
Abstracts in Refereed Conference Proceedings	18
Presenter at Professional Conferences	44
Other Relevant Publications and Reports	5
Professional Newsletter Coverage	8
Public Media Coverage	11

### Sources of Information on Bibliometric Indices

Categories	Web of Science (SCI) <sup>1</sup>	SCOPUS <sup>2</sup>	Google Scholar <sup>3</sup>
<b>Times Cited</b>	<b>956</b>	<b>1139</b>	<b>2181</b>
Times Cited (without self-citation)	933		-
<b>Times Cited (since 2012)</b>	-	<b>663</b>	<b>1213</b>
Citing Articles	876		-
Citing Articles (without self-citation)	861	-	-
<b>Average Citations per Item</b>	<b>31.97</b>	-	-
<b>Average Citations per Year</b>	<b>56.24</b>	-	-
<b>h-index</b>	<b>13</b>	<b>15</b>	<b>20</b>
h-index (since 2012)	-	-	16
<b>i10-index</b>	<b>17</b>	<b>22</b>	<b>32</b>
i10-index (since 2012)	-	-	24

<sup>1</sup>Based on 33 Science Citation Index (SCI)-listed entries; <sup>2</sup>Based on 48 listed entries; <sup>3</sup>Based on 114 listed entries

### Science Citation Index (SCI) Articles in Peer-reviewed Journals

29. Bajo\*, J.V., Martinez-Hackert, B., **Renschler, C.S.**, Lopez, C. P., & Gutierrez, F.E. (accepted pending suggested revisions). Community Volcanic Hazard Map (CVHM) for Vulnerability Analysis. *Applied Geography*.
28. **Renschler, C.S.**, & Wang\*, Z. (2017). Multi-source Data Fusion and Modeling to Assess and Communicate Complex Flood Dynamics to Support Decision-making for Downstream Areas of Dams: The 2011 Hurricane Irene and Schoharie Creek Floods, NY. *International Journal of Applied Earth Observation and Geoinformation* 62: 157-173.
27. Rios\*, F., & **Renschler, C. S.** (2017). A New Combined Assessment of Mixed Uncertainty in Spatial Models: Conceptualization and Implementation. *Transactions in GIS* 21(4): 661-682.
26. Cimellaro, G.P.; Tinebra, A., **Renschler, C.**, & Fragiadakis, M. (2017). Closure to "New Resilience Index for Urban Water Distribution Networks". *Journal of Structural Engineering* 143 (8), 17002-17002.
25. Cimellaro, G. P., **Renschler, C.**, Reinhorn, A. M., & Arendt, L. (2016). PEOPLES: A Framework for Evaluating Resilience. *Journal of Structural Engineering* 142 (4), 160631-1606313. (*"Editor's Choice for the Month": January 2017*)
24. Cimellaro, G.P.; Tinebra, A., **Renschler, C.**, & Fragiadakis, M. (2016). New Resilience Index for Urban Water Distribution Networks. *Journal of Structural Engineering* 142 (8).
23. Devaraju\*, A., Kuhn, W., & **Renschler, C. S.** (2015). A Formal Model to Infer Geographic Events from Sensor Observations. *International Journal of Geographical Information Science*, 29(1), 1-27.
22. Cimellaro, G. P., Scura\*, G., **Renschler, C. S.**, Reinhorn, A. M., & Kim, H. U. (2014). Rapid building damage assessment system using mobile phone technology. *Earthquake Engineering and Engineering Vibration*, 13(3), 519-533.
21. Frazier\*, A. E., **Renschler, C.S.**, & Miles, S. B. (2013). Evaluating post-disaster ecosystem resilience using MODIS GPP data. *International Journal of Applied Earth Observation and Geoinformation*, 21, 43-52.

20. Flanagan, D. C., Frankenberger, J. R., Cochrane, T. A., **Renschler, C. S.**, & Elliot, W. J. (2013). Geospatial Application of the Water Erosion Prediction Project (WEPP) Model. *Transactions of the ASABE*, 56(2), 591-601.
19. van Aardt, J. A., McKeown, D., Faulring, J. W., Raqueno, N. G., Casterline, M. V., **Renschler, C. S.**, Eguchi, R., Messinger, D. W., Krzaczek, R., Cavillia, S., Antalovich, J., Philips, N., Bartlett, B. D., Salvaggio, C., Ontiveros, E.M., & Gill, S. (2011). Geospatial disaster response during the Haiti earthquake: A case study spanning airborne deployment, data collection, transfer, processing, and dissemination. *Photogrammetric Engineering and Remote Sensing*, 77, 943-952.
18. Tanarro, L. M., Andres, N., Zamorano, J. J., Palacios, D. & **Renschler, C. S.** (2010). Geomorphological evolution of a fluvial channel after primary lahar deposition: Huiloac Gorge, Popocatepetl volcano (Mexico). *Geomorphology*, 122, 178-190.
17. Muñoz-Salinas\*, E., **Renschler, C. S.**, & Palacios, D. (2009). A GIS-based method to determine the volume of lahars: Popocatepetl volcano, Mexico. *Geomorphology*, 111, 61-69.
16. Muñoz-Salinas\*, E., **Renschler, C. S.**, Palacios, D., & Namikawa\*, L. M. (2008). Updating channel morphology in digital elevation models: lahar assessment for Tenenepanco-Huiloac Gorge, Popocatepetl volcano, Mexico. *Natural Hazards*, 45(2), 309-320.
15. Meyer, C. R., **Renschler, C. S.**, & Vining, R. C. (2008). Implementing Quality Control on a Random Number Stream to Improve a Stochastic Weather Generator. *Hydrological Processes*, 22(8), 1069-1079.
14. **Renschler, C. S.**, & Flanagan, D.C. (2008) Site-Specific Decision-Making Based on GPS RTK Survey and Six Alternative Elevation Data Sources: Soil Erosion Prediction. *Transactions of the ASABE*, 51(2), 413-424.  
*Note: This article received the 2009 ASABE Superior Paper Award of the American Society of Agricultural and Biological Engineers*
13. **Renschler, C. S.**, Doyle, M. W., & Thoms, M. (2007). Geomorphology and Ecosystems: Challenges and keys for success in bridging disciplines. *Geomorphology*, 89(1-2), 1-8.
12. Sorokine\*, A., Bittner, T., & **Renschler, C.S.** (2006). Ontological Investigation of a Multiscale Ecosystem Classification Using the National Hierarchical Framework of Ecological Units as an Example. *Geoinformatica*, 10(3), 313-335.
11. **Renschler, C. S.**, & Lee\*, T. (2005). Spatially distributed Assessment of Short- and Long-term Impacts of Multiple Best Management Practices in Agricultural Watersheds. *Journal of Soil and Water Conservation*, 60(6), 446-456.
10. Nearing, M. A., Jetten, V., Baffaut, C., Cerdan, O., Couturier, A., Hernandez, M., Le Bissonnais, Y., Nichols, M.H., Nunes, J.P., **Renschler, C.S.**, Souchère, V., & van Oost, K. (2005). Modeling response of soil erosion and runoff to changes in precipitation and cover. *Catena*, 61, 131-154.
9. **Renschler, C. S.** (2005). Scales and Uncertainties in volcano hazard prediction – optimizing the use of GIS and models. *Journal of Volcanology and Geothermal Research*, 139 (1-2), 73-87.
8. Patra, A. K., Bauer, A. C., Nichita, C. C., Pitman, E. B., Sheridan, M. F., Bursik, M., Rupp, B., Webb, A., Stinton, A., Namikawa\*, L., & **Renschler, C. S.** (2005). Parallel Adaptive Numerical Simulation of Dry Avalanches over Natural Terrain. *Journal of Volcanology and Geothermal Research*, 139(1-2), 1-21.
7. Gómez, J. A., Battany, M., **Renschler, C. S.**, & Fereres, E. (2003). Evaluating the impact of soil management on soil loss in olive orchards. *Soil Use and Management*, 19(2), 127-134.
6. **Renschler, C. S.** (2003). Designing geo-spatial interfaces to scale process models: The GeoWEPP approach. *Hydrological Processes*, 17, 1005-1017.

5. **Renschler, C. S.**, Flanagan, D. C., Engel, B. A., Kramer, L. A., & Sudduth, K. A. (2002). Site-Specific Decision-Making Based on GPS RTK Survey and Six Alternative Elevation Data Sources: Watershed Topography and Delineation. *Transactions of the ASAE*, 45(6), 1883-1895.
4. **Renschler, C.S.**, & Harbor, J. (2002). Soil erosion assessment tools from point to regional scales - The role of geomorphologists in land management research and implementation. *Geomorphology* 47, 189-209.
3. **Renschler, C. S.**, Mannaerts, C., & Dieckkrüger, B. (1999). Evaluating spatial and temporal variability of soil erosion risk - rainfall erosivity and soil loss ratios in Andalusia, Spain. *Catena*, 34(3-4), 209-225.
2. Bormann, H., Dieckkrüger, B., **Renschler, C. S.**, & Richter, O. (1999). Regionalization scheme for the simulation of regional water balances using a physically based model system. *Physics and Chemistry of the Earth – Part B*, 24(1-2), 43-48.
1. Bormann, H., Dieckkrüger, B., & **Renschler, C. S.** (1999). Regionalization concept for hydrological modeling on different scales using a physically based model: results and evaluation. *Physics and Chemistry of the Earth – Part B*, 24(7), 799-804.

#### Science Citation Index (SCI) Chapters in Peer-reviewed Book Series

4. Yasumiishi\*, M., **Renschler, C. S.**, & Bittner, T. E. (2015). Spatial and Temporal Analysis of Human Movements and Applications for Disaster Response Management utilizing Cell Phone Usage Data. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume II-4/W2, 2015 International Workshop on Spatiotemporal Computing, Fairfax, Virginia, USA. 13–15 July 2015. pp. 217-224. DOI:10.5194/isprsannals-II-4-W2-217-2015
3. Cimellaro, G. P., **Renschler, C.**, & Bruneau, M. (2015). Introduction to Resilience-Based Design (RBD). In G. P. Cimellaro, S. Nagarajaiah, & S. K. Kunnath (Eds.), *Computational Methods, Seismic Protection, Hybrid Testing and Resilience in Earthquake Engineering, Geotechnical, Geological and Earthquake Engineering* 33, 151-183.
2. Cimellaro, G. P., **Renschler, C.**, Arendt, L., Bruneau, M., & Reinhorn, A. M. (2011). Community resilience index for road network systems. In G. DeRoeck, G. Degrande, G. Lombaert & G. Muller (Eds.), *EURODYN-International Conference on Structural Dynamics*, 370-376.
1. Maier, H. R., Ascough II, J. C., Wattenbach, M., **Renschler, C. S.**, Labiosa, W. B., & Ravalico, J. K. (2008). Uncertainty in environmental decision-making: issues, challenges and future directions. In A. J. Jakeman, A.A. Voinov, A.E. Rizzoli, & S. H. Chen (Eds.), *Developments in Integrated Environmental Assessment*, 3, 69-85.

#### Articles in Peer-Reviewed Conference Proceedings

- Cao\*, Y., **Renschler, C. S.**, & Jacques, G. M. (2014). A Data Model to Capture Spatial and Temporal Exposure. *GIScience 2014*. Vienna, Austria. September 23-26, 2014. 6p. DOI: 10.13140/RG.2.1.1039.1445
- Cimellaro, G. P., Moretti, S., Piqué, M., Trozzo, A. C., **Renschler, C. S.**, & Reinhorn, A. M. (2014). ASCE First Generation Testbed for Evaluating Resilience of Structures. *Structures Congress 2014*, Boston, MA. April 3-5, 2014. pp. 2292-2303. DOI: 10.1061/9780784413357.201
- Martinelli, D., Cimellaro, G. P., & **Renschler, C. S.** (2014). Quantification of the Economic Resilience from the Community Level to the Individual Business Level: The Bay Area Case Study. *Structures Congress 2014*. Boston, MA. April 3-5, 2014. pp. 1518-1529. DOI: 10.1061/9780784413357.133

- Cimellaro, G. P., Solari, D., Arcidiacono, V., **Renschler, C. S.**, Reinhorn, A. M., & Bruneau, M. (2014). Community Resilience Assessment Integrating Network Interdependencies. *10<sup>th</sup> U.S. National Conference on Earthquake Engineering*. Anchorage, Alaska. July 21-25, 2014. 10 p. DOI: 10.4231/D3930NV8W
- Cimellaro, G. P., D. Martinelli, & **Renschler, C.** (2014). Different Approaches to Model Economic Dimension of Community Resilience. *10<sup>th</sup> U.S. National Conference on Earthquake Engineering*. Anchorage, Alaska. July 21-25, 2014. 11 p. DOI: 10.4231/D30Z70X5Z
- Cimellaro, G. P., Solari D., V., **Renschler, C.**, Reinhorn, A. M., & Bruneau, M. (2013). Community resilience index integrating network interdependencies. *2013 Structures Congress (SEI 2013)*. Pittsburgh, PA, May 2-4, 2013. pp. 1789-1799. DOI: 10.1061/9780784412848.157
- Llaves\*, A., & **Renschler C.** (2012) Observing Changes in Real-Time Sensor Observations. *AGILE'2012 International Conference on Geographic Information Science*, Avignon, April 24-27, 2012. In: J. Gensel, D. Josselin & D. Vandenbroucke (Eds.). Multidisciplinary Research on Geographical Information in Europe and Beyond. *Lecture Notes in Geoinformation and Cartography*. Springer. pp. 388-392. ISBN: 978-90-816960-0-5.
- Renschler, C.**, Reinhorn, A. M., Arendt, L., & Cimellaro, G. P. (2011). The P.E.O.P.L.E.S. Resilience Framework: A conceptual approach to quantify community resilience. In: M. Papadrakakis, M. Fragiadakis, & V. Plevris (Eds.). *COMPDYN 2011 - 3<sup>rd</sup> International Conference in Computational Methods in Structural Dynamics and Earthquake Engineering*, Corfu, Greece, May 26-28, 2011. pp. 2014-2023. DOI: 10.13140/RG.2.1.3355.1767
- Cimellaro, G. P., **Renschler, C.**, Frazier\*, A., Arendt, L., Bruneau, M., & Reinhorn, A. M. (2011). State of art of community resilience of physical infrastructures. *2011 Structures Congress (SEI 2011)*, Las Vegas, April 14-16, 2011. pp. 2021-2032. DOI: 10.1061/41171(401)176
- Cimellaro, G. P., **Renschler, C.**, Frazier\*, A., Arendt, L., Bruneau, M., & Reinhorn, A. (2011). Community resilience index for road network systems. In: G. De Roeck, G. Degrande, G. Lombaert, & G. Muller (Eds.). *EURODYN 2011, 8<sup>th</sup> International Conference on Structural Dynamics*, Leuven, Belgium, July 4-6, 2011. pp. 370-376. ISBN 978-90-760-1931-4.
- Renschler, C. S.**, Frazier\*, A. E., Arendt, L. A. Cimellaro, G. P., Reinhorn, A. M., & Bruneau, M. (2010a). Developing the 'PEOPLES' resilience framework for defining and measuring disaster resilience at the community scale. *9<sup>th</sup> US and 10<sup>th</sup> Canadian Conference on Earthquake Engineering*. Toronto, Canada, July 25-29, 2010. 10 p. CD-ROM. doi: 10.13140/RG.2.1.1563.4323
- Renschler, C.S.** (2006). Spatial and Temporal Model Validation: Representing Landscape Properties and Processes across Scales. In: A. Voinov, A. J. Jakeman, & A. E. Rizzoli (Eds.). *International Environmental Modelling and Software Society (iEMSs) Third Biennial Meeting: "Summit on Environmental Modelling and Software"*, Burlington, USA, July 9-12, 2006. 6 p. CD-ROM. ISBN 1-4243-0852-6
- Rupp\*, B., Bursik, M., Namikawa\*, L., Webb, A., Patra, A. K., Saucedo, R., Macias, J. L., & **Renschler, C.** (2006). Computational modeling of the 1991 block and ash flows at Colima Volcano, Mexico. In: C. Siebe, J. L. Macías, & G. J. Aguirre-Díaz (Eds.). *Neogene-Quaternary Continental Margin Volcanism: A Perspective from México*. Geological Society of America. Penrose Conference Series, GSA Special Papers 2006, 402, 237-252. doi: 10.1130/2006.2402(11)
- Namikawa\*, L. M., & **Renschler, C. S.** (2004). Elevation Uncertainty in Digital Elevation Data used for Geophysical Flow Simulation. In: C. Iochpe, & G. Câmara (Eds.).



*Brazilian Symposium on GeoInformatics - GeoInfo 2004*, São Paulo, Brazil, November 22-24, 2004. pp. 91-108. ISBN 3-901882-20-0

- Sorokine\*, A., Bittner, T., & **Renschler, C. S.** (2004). Ontological Investigation of Ecosystem Hierarchies and Formal Theory for Multiscale Ecosystem Classifications. In: M. J. Egenhofer, C. Freksa & H.J. Miller (Eds.). *GIScience 2004*, Adelphi, MD, October 20-23, 2004. 19 p. doi:10.1.1.1.2816
- Namikawa\*, L. M., & **Renschler, C. S.** (2003). Dynamic Integrated GIS Enhancement and Support Tools. In: M. A. Casanova, & G. C. Neto (Eds.). *GeoInfo 2003*, São Paulo, Brazil, November 3-5, 2003. 7 p. ISBN 85-17-00026-9 / ISBN 978-85-17-00026-3
- Renschler, C. S.**, & Flanagan, D. C. (2002). Implementing a process-based decision-support tool for natural resource management – the GeoWEPP example. In: A.E. Rizzoli & A. J. Jakeman, (Eds.). 1st biennial meeting of the International Environmental Modelling and Software Society (iEMSs) 2002 *International Congress: "Integrated Assessment and Decision Support"*, Lugano, Switzerland, June 2002. pp. 187-192. ISBN 88-900787-0-7
- Renschler, C. S.**, Flanagan, D. C., & Nearing, M. A. (2002). Spatially distributed soil erosion assessment with commonly available data – GIS-based applications with WEPP. In: J. L. Rubio, R.P.C. Morgan, A. Asins, & V. Andreu (Eds.). *Man and Soil at the Third Millennium Vol.2. Geoforma Ediciones*, Logrono, Spain. March 28-April 31, 2000. pp. 1945-1959. ISBN 8487779476
- Renschler, C. S.**, Diekkrüger, B., & Mannaerts, C. (1999). Regionalization of surface runoff and soil erosion risk evaluation. In: B. Diekkrüger, M. Kirkby, & U. Schröder (Eds.). *Regionalization in Hydrology*. International Association of Hydrological Sciences (IAHS) Publication 254, IAHS Press, Braunschweig, Germany, March 10-14 1997. pp. 233-242. ISBN 1901502805
- Bormann, H., Diekkrüger, B., & **Renschler, C.** (1999). Regionalization concept for the prediction of large-scale water fluxes. In: B. Diekkrüger, M. Kirkby, & U. Schröder (Eds.). *Regionalization in Hydrology*. International Association of Hydrological Sciences (IAHS) Publication 254, IAHS Press, Braunschweig, Germany, March 10-14 1997. pp. 233-242. ISBN 1901502805

### Chapters in Refereed Book

- Renschler, C. S.** & Sheridan, M. F. (2003). GeoDRAT - A framework for volcanic hazard assessment and management. In: L. Picarelli (Ed.). *Conference on Fast Slope Movements-Prediction And Prevention For Risk Mitigation*, Naples, Italy, May 11-13, 2003. 3 p.
- Renschler, C. S.**, Cochrane, T., Harbor, J., & Diekkrüger, B. (2002). Regionalization methods for watershed management - hydrology and soil erosion from point to regional scales. In: D.E. Stott, R. Mothar, & F. Steinhard (Eds.). *Soil Conservation Organization (ISCO) 1999: Sustaining the Global Farm*, West Lafayette, IN, May 23-28 1999. pp. 1062-1067.
- Renschler, C. S.**, Flanagan, D. C., & Engel, B.A. (2001). Data accuracy issues in spatially distributed soil erosion modeling: What does decision-making gain? In: J. C. Ascough II, & D. C. Flanagan (Eds.). *Soil Erosion Research for the 2<sup>1st</sup> Century*, American Society of Agricultural, Engineers (ASAE). pp. 509-511.
- Flanagan, D. C., Frankenberger, J. R., **Renschler, C. S.**, Laflen, J. M. & Engel B. A. (2001). Simulating Small Watersheds with Water Erosion Prediction Project Technology. In: J. C. Ascough II, & D. C. Flanagan (Eds.). *Soil Erosion Research for the 2<sup>1st</sup> Century*, American Society of Agricultural, Engineers (ASAE). pp. 363-366.
- Renschler, C. S.**, Diekkrüger, B., & Mannaerts, C. (2000). Chapter 37. Regional Soil Erosion Risk Evaluation Using an Event-Based GIS-Model-Scenario Technique. In: J. Laflen, J. Tian, & C. Huang (Eds.). *Soil Erosion & Dryland Farming*, CRC Press. pp. 365-379.

- Diekkrüger, B., Bormann, H., & **Renschler, C.** (2000). Spatial variability and scale dependent runoff generation. In: C. Leibundgut, S. Uhlenbrook, & J. McDonnell (Eds.). *Runoff Generation and Implications for River Basin Modelling*, Freiburger Schriften zur Hydrologie Band 13, Freiburg, Germany. pp. 17-27.
- Renschler, C. S.**, Diekkrüger, B., & Bormann, H. (1999). Regional simulation in hydrology - estimating errors due to different data pre-processing methods. In: N. Fohrer & P. Döll (Eds.). *Modellierung des Wasser- und Stofftransports in großen Einzugsgebieten*, Kassel University Press, Kassel, Germany. pp. 173-180.
- Bormann, H., Diekkrüger, B., & **Renschler, C.** (1999). Regionale Simulationen in der Hydrologie -Quantifikation der Fehler und der Unsicherheiten. In: N. Fohrer & P. Döll (Eds.). *Modellierung des Wasser- und Stofftransports in großen Einzugsgebieten*, Kassel University Press, Kassel, Germany. pp. 21-29. (In German).
- Diekkrüger, B., Richter, O., Bormann, H., and **Renschler, C.** (1999). Kapitel 3 - Heraufskalieren von landwirtschaftlich genutzten Ökotope. In: H. B. Kleeberg, W. Mauser, G. Peschke, & U. Streit (Eds.). *Hydrologie und Regionalisierung - Research Report for Deutschen Forschungsgemeinschaft (DFG)*. Wiley-VCH, Germany. pp. 150-174. (In German).
- Diekkrüger, B., Bormann, H., **Renschler, C.**, and Richter, O. (1998) Regionale Vorhersage der Wasserflüsse unter Berücksichtigung der skalenabhängigen Informationsdichte. In: A. Bronstert, V. Krysanova, A. Schröder, A. Becker & H.-R. Bork. (Eds.). *Modellierung des Wasser- und Stofftransportes in großen Einzugsgebieten*, Potsdam Institute for Climate Impact Research (PIK)-Report 43. Potsdam, Germany, December 15-16, 1997. pp. 33-42. (In German).

#### **Refereed Governmental Reports (Scientific and Professional Publications)**

- Renschler, C. S.** (2016). End-of-Mission Report: Enhancing Regional Capacities for Assessing Soil Erosion and the Efficiency of Agricultural Soil Conservation Strategies through Fallout Radionuclides - Centre national de l'énergie, des sciences et des techniques nucléaires (CNESTEN), Rabat, Morocco. Department of Technical Cooperation, International Atomic Energy Agency (IAEA), United Nations, Vienna, Austria. 12 p.
- Renschler, C.S.** (2016). End-of-Mission Report: Complementing Conventional Approaches with Nuclear Techniques towards Flood Risk Mitigation and Post-Flood Rehabilitation Efforts in Asia. Department of Technical Cooperation, International Atomic Energy Agency (IAEA), United Nations, Vienna, Austria. 11 p.
- Syahril, S., Lee, H. S., **Renschler, C. S.**, Heath, S., & Bradshaw, P. (2016) Mid-term Review Meeting and Decision Makers Awareness Building on Nuclear and Isotopic Techniques involved in Flood Risk Mitigation and Post-Flood Management. RAS/5/069 Complementing Conventional Approaches with Nuclear Techniques towards Flood Risk Mitigation and Post-Flood Rehabilitation Efforts in Asia. IAEA Report. International Atomic Energy Agency (IAEA), United Nations, Vienna, Austria. 3 – 6 May 2016. 41p.
- Renschler, C. S.** (2015). The PEOPLES Resilience Framework: Integrating Quantitative Measures and Modeling for Disaster Risk Reduction and Sustainable Development. In: B. M. Ayyub, G. E. Galloway & R. N. Wright (Eds.). *Measurement Science for Sustainable Construction and Manufacturing, Volume I. Position Papers*, National Institute of Standards and Technology, Office of Applied Economics. NIST GCR 15-986-1, Gaithersburg, MD. pp.198-203. <http://dx.doi.org/10.6028/NIST.GCR.15-986-1>
- Renschler, C. S.** (2013) The PEOPLES Resilience Framework – An Integrated Quantitative Measure and Modeling of Sustainable Development and Disaster Risk Reduction. *United Nations (UN) Global Assessment Report (GAR) on Disaster Risk Reduction 2015*. UN Office for Disaster Risk Reduction (UNISDR), Geneva, Switzerland. 10 p. ISBN 978-92-

- 1-132042-8. Available at  
<http://www.preventionweb.net/english/hyogo/gar/2015/en/home/documents.html>
- Allen, T., Penuel, K. B., Barton, D., Heastie, C., Bashaw, P., Berk, B., Brown, L., Burnett, D., Burns, J., Davie, F., Davoren, P.J, Dillon, G., Feldman, E., Gudaitis, P., Hannigan, T., Hauer, J., Heller, S., Hernandez, T., Johnson, B., Manning, T., McManus, M., Mungeer, T., **Renschler, C. S.**, Saviola, M., Schneider, J., Solazzo, M. J., & Weed II., H. L. (2013). *Report of the New York State Respond Commission*. Office of the Governor of New York State, Andrew M. Cuomo. Albany, NY. Internal Report.
- Hayes, G. S., **Renschler, C. S.**, Minkowski, M. W., Wang, Z., & R. Mendieta (2012). *Cattaraugus/ Clear Creek Watershed, New York, Section 516(e) WRDA 1996 Great Lakes Tributary Modeling, Final Report*. February 29, 2012. Internal Report.
- Renschler, C. S.**, Fraizer\* A. E., Arendt, L. A., Cimellaro, G. P., Reinhorn, A. M., & Bruneau, M. (2010b). *A Framework for Defining and Measuring Resilience at the Community Scale: The PEOPLES Resilience Framework. MCEER-Earthquake Engineering to Extreme Events Technical Report MCEER-10-0006*. Buffalo, NY. Available at: <https://mceer.buffalo.edu/pdf/report/10-0006.pdf>
- Renschler, C. S.**, Fraizer\* A. E., Arendt, L. A., Cimellaro, G. P., Reinhorn, A. M., & Bruneau, M. (2010c). *A Framework for Defining and Measuring Resilience at the Community Scale: The PEOPLES Resilience Framework*. U.S. Department of Commerce National Institute of Standards and Technology (NIST), Office of Applied Economics Engineering Laboratory NIST GCR 10-930. Gaithersburg, MD. Available at: [http://peoplesresilience.org/wp-content/uploads/2013/07/NIST\\_GCR\\_10-930.pdf](http://peoplesresilience.org/wp-content/uploads/2013/07/NIST_GCR_10-930.pdf)
- Schoch-Spana, M., Abramson, D., Birkland, T., Chakos, A., Cutter, S., Davidson, M., Eisenman, D., Godschalk, D., Laska, S., Miletic, D., Norwood, A., Nuzzo, J., Olshansky, R., Pine, J. C., Quinn, S. C., **Renschler, C. S.**, Rose, A., Simpson, D., Smith, G., Tierney, K., & Wilbanks, T. (2009). *Policy Brief: Research Findings on Community Resilience and their Implications for Federal Policymaking*. University of Pittsburgh Medical Center (UPMC) Center for Biosecurity - Resilience Research Work Group. Baltimore, MD. Available at: [http://www.upmchealthsecurity.org/our-work/events/2009\\_resilient\\_american\\_communities](http://www.upmchealthsecurity.org/our-work/events/2009_resilient_american_communities)
- Evans\*, P., & **Renschler, C. S.** (2009). *Stream Flow and Sediment Modeling For the Cattaraugus Creek Watershed Using the Soil and Water Assessment Tool (SWAT)*. US Army Corps of Engineers (US ACE) Project Report. Internal Report.
- Boyer, B., Carpenter, B., **Renschler, C.** & R. Vallone Kellam (2008). *Cattaraugus Creek Watershed Resource Guide and Proposed Watershed Planning Strategy*. Environmental Protection Agency (EPA) Final Project Report. Available at: [http://www.lake-erie.fff.org/files/Cattaraugus\\_Creek\\_Watershed.pdf](http://www.lake-erie.fff.org/files/Cattaraugus_Creek_Watershed.pdf)

### Entry in Refereed Encyclopedia

- Renschler, C.S.** (2003) Watershed. In: *Encyclopedia of Geomorphology* edited by Goudie, A.S. Intl. Association of Geomorphologists. Routledge/Taylor & Francis, London, UK.

### Computer Software Development for Research, Instruction and Implementation

- Renschler, C. S.**, Yasumiishi\*, M. & Xiong\*, H. (2017). GeoWEPP: Geo-spatial interface for the Water Erosion Prediction Project for ArcGIS 10.4, 10.5 (Beta Version) [computer software].
- Renschler, C. S.**, Xiong\*, H., Goergen\*, J., Minkowski\*, M., & Yasumiishi\*, M. (2014). GeoWEPP: Geo-spatial interface for the Water Erosion Prediction Project for ArcGIS 10.1, 10.2, 10.3 (Version 1.0) [computer software]. Available from <http://geowepp.org>
- Renschler, C. S.**, & Rios\*, F. (2014). GeoProMT: Geo-spatial Project Management (Version 1.0) [internet portal]. Available at <http://geopromt.org>

- Renschler, C. S. & Minkowski\***, M. (2012). GeoWEPP: Geo-spatial interface for the Water Erosion Prediction Project for ArcGIS 9.x [computer software]. Available from <http://geowepp.org>
- Renschler, C. S.**, Slomka, T., Hayes, G., **Martin\***, C., Uppal, A., **Mendieta\***, R., **Gu\***, S., & **Bajo\***, J. (2013). GeoProMT: Geo-spatial Project Management (Alpha) [internet portal]. Available at <http://geopromt.org>
- Renschler, C. S.**, **Namikawa\***, L. M., Slomka, T., & Sheridan, M. (2006). GeoProMT: Geo-spatial Project Management (Beta) [internet portal]. Available at <http://geopromt.org>
- Namikawa\***, L. M. & **Renschler, C. S.** (2006). GRASS GIS Interface for Titan2D: A Parallel Adaptive Numerical Simulation Model for Geophysical Mass Flows (Alpha). [computer software].
- Sorokine\***, A., & **Renschler, C. S.** (2004). GRASS GIS Interface for Titan2D: A Parallel Adaptive Numerical Simulation Model for Geophysical Mass Flows (Beta) [computer software].
- Renschler, C.S.**, & **Sorokine\***, A. (2004). GeoDRAT: Geo-spatial Dynamic Response Assessment Tool (Beta). [internet portal].
- Renschler, C. S.**, & **Malinowski\***, M. (2004) Geo-spatial Interface Prototype for Cropware - A Cornell University Nutrient Management Software (Beta) [computer software].
- Renschler, C. S.** (2002). GeoWEPP: Geo-spatial interface for the Water Erosion Prediction Project for ArcView 3.x (Version 1.0) [computer software]. Available from <http://geowepp.org>.

#### **Invited Presentations (Lectures, Seminars, Keynotes, and Conference Panels)**

- Renschler, C. S. (2017). Managing Information in the Age of Cyberinfrastructure and Big Data: A Case for Geospatial Project Management (GeoProMT). Western New York/Ontario Chapter, Association of College and Research Libraries (WNY/O ACRL). Roycroft Inn, East Aurora, NY (was postponed)
- Renschler, C.S. (2017). Holistic Approaches to Manage Processes of the Anthropocene: Geomorphology, GIScience and Community Resilience. Institute for Geoinformatics, University of Münster, Münster, Germany
- Renschler, C.S. (2017). Integrated Extreme Events Management: Holistic Geomorphology and the PEOPLES Resilience Framework. 2017 International Lecture on Hazard and Risks. University of Vienna International Lecture on Hazard and Risks, Vienna, Austria
- Renschler, C.S. (2017). TBA. Chinese Academy of Agricultural Sciences/Guangxi University. Nanning, China
- Renschler, C.S. (2017). Watershed Modeling Tools for Stakeholders: Utilizing Fallout Radionuclides to Assess Sustainable Management, Climate Change, Disaster Recovery and Community Resilience. 1<sup>st</sup> Joint Meeting of the Japanese Geophysical Union and American Geophysical Union. Tokyo/University of Tokyo, Japan
- Renschler, C. S. (2017). Integrating Measurements, Modeling and Management - Multi-dimensional Process-based Approaches for Holistic Geomorphology. Faculty for Biology, Chemistry und Geosciences, University of Bayreuth, Germany
- Renschler, C. S. (2017). Spatial aspects of runoff dynamics in landscapes. Regional Training Course on the Interdisciplinary Application of Isotope Hydrology and Soil Related Isotopic Techniques for Flood Risk Mitigation and Post-Flood Rehabilitation in Asia. Joint Food and Agriculture Organization (FAO) / International Atomic Energy Agency (IAEA), Argonne National Laboratory, IL
- Renschler, C. S. (2017). Integrating Measurement Patterns and Process-based Modeling for Improving the Soil and Water Management within Small Watersheds. Department of Water-Atmosphere-Environment, University of Natural Resources and Life Sciences (BOKU), Vienna, Austria

- Renschler, C. S. (2016). A Scenario-based Extreme Events Research and Decision-making Framework Linking Measurements, Modeling and Management. Department of Geography and Environmental Sciences. University of Colorado. Denver, CO
- Renschler, C. S. (2016). Process-based Soil Loss Prediction in Landscapes Under Climate Change: community resilience and sustainable development in agricultural watersheds. Institute National de la Recherche Agronomic (INRA), Rabat, Morocco
- Renschler, C. S. (2016). Process-based Soil Loss Prediction in Landscapes Under Climate Change: community resilience and sustainable development in agricultural watersheds. Centre national de l'énergie, des sciences et des techniques nucléaires (CNESTEN), Rabat, Morocco
- Renschler, C. S. (2016). Four Keys for Integrating GIS and Environmental Models for Extreme Events Management. Department of Geoinformatics- Z\_GIS, University of Salzburg, Salzburg, Austria
- Renschler C. S., Klik, A., Melaku, N., & Omotayo, A.O. (2016). Quantifying impacts of climate and land use changes on soil and water management, community resilience and sustainable development in agricultural watersheds. Vulnerability of Agricultural Production Networks and Global Food Value Chains due to Natural Disasters. Conference Organized by the Technical University of Vienna, and the Co-operative Research Programme on Biological Resource Management for Sustainable Agricultural Systems Trade and Agriculture Directorate. Organisation for Economic Co-operation and Development (OECD), Vienna, Austria
- Renschler, C. S. (2016). Keys to Integrated Extreme Events Management. Institute of Surveying, Remote Sensing & Land Information (IVFL), Univ. Natural Resources and Life Sciences (BOKU), Vienna, Austria
- Renschler, C. S. (2016). Complementing Conventional Approaches with Nuclear Techniques towards Flood Risk Mitigation and Post-Flood Rehabilitation Efforts in Asia. Mid-Term Panel Review and Decision-Makers Awareness Meeting. Joint Food and Agriculture Organization/International Atomic Energy Agency (FAO/IAEA), Vienna, Austria.
- Renschler, C. S. (2016). Spatial and Temporal Dynamics of Watershed Hydrology and Soil Erosion – Scenario-based Research Framework Linking Measurements, Modeling and Management. US Department of Agriculture (USDA) Agricultural Research Service (ARS) National Soil Erosion Research Laboratory (NSERL). West Lafayette, IN.
- Renschler, C. S. (2016). Realistische Szenarien als Basis für Multihazard Warnungen - Integriertes Management von Extremereignissen. Understanding Risk Austria. Zentralanstalt für Meteorologie and Geodynamik & The World Bank. Vienna, Austria (in German).
- Renschler, C. S. (2016). Spatial and Temporal Dynamics of Watershed Hydrology and Soil Erosion - A Scenario-based Approach Linking Measurements, Modeling and Management. Institute of Hydraulics and Rural Water Management (IHLW), Univ. Natural Resources and Life Sciences (BOKU), Vienna, Austria.
- Renschler, C. S. (2016). Integrated Extreme Events Management of Coastal Environments. National Oceanography Centre (NOC). University of Southampton, Southampton, UK.
- Renschler, C. S. (2016). Approaches to Modify the Traditional Idea of Disaster Management Cycle towards Integrated Extreme Events Management. UN Office for Outer Space Affairs (UNOOSA). United Nations, Vienna, Austria.
- Renschler, C. S. (2015). Past, Present and Future of GIS: The Need for Geospatial Project Management. Facultad de Geografía e Historia. Universidad Complutense de Madrid, Spain.
- Renschler, C. S. (2015). Assessing Environmental and Management Changes with GeoWEPP – The Geospatial Interface of the Water Erosion Prediction Project. Institut für Bodenkunde und Standortslehre Universität Hohenheim. Stuttgart, Germany.

- Renschler, C. S. (2015). The PEOPLES Resilience Framework - Integrated extreme events management at the neighborhood and landscape scales. Institut für Geökologie / Institut für Geosysteme und Bioindikation. Technical University of Braunschweig, Braunschweig, Germany
- Renschler, C. S. (2015). Panel: Taking Account of Culture in the Study of Risk and Disasters. American Association of American Geographers (AAG). Chicago, IL.
- Renschler, C. S. (2014). Keynote Address: PEOPLES – A Community Resilience Framework. II Latin American Forum on Disaster Risk Reduction in Higher Education – “From Bogota to Sendai – Toward Risk Awareness”, United States Agency for International Development (USAID)/The United Nations Office for Disaster Risk Reduction (UNISDR), Bogota, Colombia.
- Renschler, C. S. (2014). Building partnerships for an integrated assessment and management of extreme events. II Latin American Forum on Disaster Risk Reduction in Higher Education – “From Bogota to Sendai – Toward Risk Awareness”, United States Agency for International Development (USAID)/The United Nations Office for Disaster Risk Reduction (UNISDR), Bogota, Colombia.
- Renschler, C. S. (2014). Smartphone Disaster Mode - Vulnerability, Resilience and Reporting. SmartAmerica Challenge. National Institute of Standards and Technology (NIST) & The White House. Washington, DC.
- Renschler, C. S. (2014). The PEOPLES Resilience Framework: Integrating Quantitative Measures and Modeling for Disaster Risk Reduction and Sustainable Development. NIST-ASCE-ASME Workshop on Measurement Science for Sustainable Construction and Manufacturing. National Institute of Standards and Technology (NIST) - American Society of Civil Engineers (ASCE) – American Society of Mechanical Engineers. Reston, VA.
- Renschler, C. S. (2013). GIScience and Environmental Modeling - The Geo-spatial Interface for The Water Erosion Prediction Project (GeoWEPP). State Key Laboratory of Earth Surface Processes and Resource Ecology (ESPRE), Beijing Normal University. Beijing, China.
- Renschler, C. S. (2013). GIScience and Environmental Modeling - The Geo-spatial Interface for The Water Erosion Prediction Project (GeoWEPP). Institute of Geographical Science and Natural Resources Research, Chinese Academy of Sciences. Beijing, China.
- Renschler, C. S. (2013). GIScience and Extreme Events. College of Resource Environment and Tourism, Capital Normal University. Beijing, China.
- Renschler, C. S. (2013). Soil Erosion Modeling. College of Resource Environment and Tourism, Capital Normal University. Beijing, China.
- Renschler, C. S. (2013). Integrated Earth System Science. College of Resource Environment and Tourism, Capital Normal University. Beijing, China.
- Renschler, C. S. (2013). Governor Andrew Cuomo’s Conference on Emergency Preparedness. The Governor’s Office. Albany, NY.
- Renschler, C. S. (2013). An Integrated Analysis of Geoecological and Geopedological Processes to Assess Ecosystem Resilience and Sustainability in Natural and Managed Watersheds. Department of Geography and Regional Research, University of Vienna. Vienna, Austria.
- Renschler, C. S. (2012). New York State Governor’s NYS RESPOND Commission Meeting. Center for Academic and Spiritual Life, New York University. New York City, NY.
- Renschler, C.S. (2012). 10<sup>th</sup> International Workshop on Remote Sensing for Post-Disaster Response. International Research Institute of Disaster Science, Tohoku University. Sendai, Japan.
- Renschler, C. S., & Minkowski\*, M. (2011). Integrated Extreme Events Modeling: A Remote Sensing Approach to Assess the Impact of Prescribed and Actual Wildland Fires. 9<sup>th</sup>

- International Workshop on Remote Sensing for Post-Disaster Response. John A. Blume Earthquake Engineering Center - Stanford University. Palo Alto, CA.
- Renschler, C. S. (2011). Environmental Impact Assessment: Cyber-Infrastructure to support GIScience, Remote Sensing and Models for Planning and Managing Disasters. Faculty of Geo-Information Science and Earth Observation (ITC), University of Twente. Enschede, The Netherlands.
- Renschler, C. S. (2011). Managing Extreme Events through coordinated, continuous Geospatial Project Management (GeoProMT). Département de Géologie-Laboratoire Magmas et Volcans, Université Blaise Pascal. Clermont-Ferrant, France.
- Renschler, C. S. (2011). Panel: 2010 Disasters in Review: Reflections on Lessons Learned for Disaster Loss Reduction. American Association of American Geographers (AAG). Seattle, WA.
- Renschler, C. S. (2011). Integrated Extreme Events Management: Linking Earth Systems Sciences, GIScience, and Environmental Modeling to Support Sustainable Planning for More Resilient Communities. Dept. of Geology & Geophysics Distinguished Speaker Series. University of Wyoming. Laramie, WY.
- Renschler, C. S. (2011). The NSF CyberGIS Project – Workshop on Participatory Process. University of Washington. Washington, DC.
- Renschler, C. S. (2010). Geopedology within Earth System Sciences: An Integrated Assessment of Geoecological and Geomorphological Processes in Critical Zones. Joint GFZ & University Potsdam Colloquium. German Research Centre for Geosciences (GFZ). Potsdam, Germany.
- Renschler, C. S. (2010). The ‘PEOPLES Resilience Framework – Planning for More Resilient Communities with a Sustainable Future. German Academic Exchange Service (DAAD) & Alexander von Humboldt Foundation Conference on Sustainability. New York City, NY.
- Renschler, C. S. (2010). A Remote Sensing Approach to Evaluate Post-Disaster Ecosystem Recovery. 8<sup>th</sup> International Workshop on Remote Sensing for Post-Disaster Response. Tokyo Institute of Technology. Tokyo, Japan.
- Renschler, C. S. (2010). Integrated Extreme Events Management. Department of Water Resources Colloquium Series. Faculty of Geo-Information Science and Earth Observation (ITC), University of Twente. Enschede, The Netherlands.
- Renschler, C. S. (2010). Integrated Watershed Management using GIS, RS and Environmental Modeling – A Case Study with the Seneca Nation of Indians. Faculty of Geo-Information Science and Earth Observation (ITC), University of Twente. Enschede, The Netherlands.
- Renschler, C. S. (2010). PEOPLES Resilience Framework. Kreditanstalt für Wiederaufbau (German Development Bank). Frankfurt am Main, Germany.
- Renschler, C. S. (2010). Managing Extreme Events: The PEOPLES Resilience Framework. Climate Service Center (CSC) GKSS-Forschungszentrum Geesthacht GmbH. Hamburg, Germany.
- Renschler, C. S. (2010). Integrated Extreme Events Management: Developing the PEOPLES Resilience Framework to plan for a more Sustainable Future. Institute for Snow and Avalanche Research (SLF), Davos, Switzerland.
- Renschler, C. S. (2010). Integrated Information Management For Collaborative Research In GeoHazard Modeling and Simulation. International Research Training Group (IRTG), University of Bremen, Germany.
- Renschler, C. S. (2010). Developing The ‘PEOPLES’ Resilience Framework For Defining And Measuring Disaster Resilience At The Community Scale. 9<sup>th</sup> US National/10<sup>th</sup> Canadian Conference on Earthquake Engineering (EERI), Toronto, Canada.

- Renschler, C. S. (2010). Mapping a Disaster – Supporting the Recovery. UB Reaching Others: The Haiti Earthquake. Office of the Vice President for External Affairs - University at Buffalo, Buffalo, NY.
- Renschler, C. S. (2010). Jan 12 2010 Haiti Earthquake: Response and Resilience. Congressional Presentation, University Consortium for Geographic Information Science (UCGIS), Washington, DC.
- Renschler, C. S. (2010). Geospatial Decision-Support Tools for Soil and Water Conservation at Multiple Scales. Congressional Presentation, University Consortium for Geographic Information Science (UCGIS), Washington, DC.
- Renschler, C. S. (2010). Panel: TeraGrid Workshop on Cyber-GIS, National Science Foundation (NSF), Washington, DC.
- Renschler, C. S. (2010). Community Resilience Assessment. Equality Club of Buffalo. Buffalo, NY.
- Renschler, C. S. (2009). Panel: Resilience Research Work Group. Policy Brief on Research Findings on Community Resilience and their Implications for Federal Policymaking. University of Pittsburgh Medical Center (UPMC) Center for Biosecurity, Washington, DC.
- Renschler, C. S. (2009). UB Extreme Events Research – Remote Sensing, Environmental Modeling and Community Resilience. Erie County Local Emergency Planning Committee. Buffalo, NY.
- Renschler, C. S. (2009). Information Products Laboratory for Emergency Response (IPLER): A Partnership for Developing Disaster Management Technologies Linking Remote Sensing, GIS and Environmental Modeling. 7<sup>th</sup> International Workshop on Remote Sensing for Post-Disaster Response, University of Texas at Austin/MCEER, Austin, TX.
- Renschler, C. S. (2009). Integrating Earth Systems Sciences, Earth Observations and GIScience - Implementing Process Models for Land Use Management Decision-making under Climate Change. Instituto Nacional de Pesquisas Espaciais (INPE; Brazilian Space Agency). Sao José dos Campos, Brazil.
- Renschler, C. S. (2009). Assessing Spatial Distributed Soil Loss. XIV Brazilian Remote Sensing Symposium (SBSR). Natal, Brazil.
- Renschler, C. S. (2008). Developing an Integrated Watershed Management Tool: Linking GIS and a Process-based Erosion Model. Department of Water Resources Development & Management, Indian Institute of Technology (IIT Roorkee), Roorkee, India.
- Renschler, C. S. (2008). Integrated Catchment Management: Linking Sustainability and Resilience against Extreme Events. Dept. of Civil Engineering, Indian Institute of Technology (IIT Delhi), New Delhi, India
- Renschler, C. S. (2008). Using GIS & Environmental Modeling to plan a more resilient community: an ecosystem and land use perspective. School of Planning and Architecture. New Delhi, India.
- Renschler, C. S. (2008). The Geospatial Interface for the Water Erosion Prediction Project (GeoWEPP). Faculty of Environmental Sciences, Griffith University. Brisbane, Australia.
- Renschler, C. S. (2008). Decision-Support Tools for Integrated Natural Resources and GeoHazards Management: Scientific and Legal Challenges for Development and Implementation. University of New England (UNE) School of Law - Kirby Seminar Series. Armidale, Australia.
- Renschler, C. S. (2008). Developing a Community Resilience Index: Challenges and Opportunities in using GIS and Environmental Modeling. Center for Ecotoxicology, University of Technology Sydney. Sydney, Australia.



- Renschler, C. S. (2008). Integrating Natural Resources and GeoHazards Management: Linking Sustainability and Resilience against Extreme Events. Commonwealth Scientific and Industrial Research Organisation (CSIRO). Canberra, Australia.
- Renschler, C. S. (2008). Integrated Management of Natural Resources and GeoHazards at Multiple Scales: Process-based Decision-Support for Impact Assessment of Extreme Events. Earth Sciences, University of Queensland. Brisbane, Australia.
- Renschler, C. S. (2008). Integrating Natural Resources and GeoHazards Management: Developing a Watershed Community Resilience Index against Extreme Events. School of Geography Planning and Architecture, University of Queensland. Brisbane, Australia.
- Renschler, C. S. (2008). Integrated Management of Natural Resources and GeoHazards at Multiple Scales: Using the GeoWEPP Model for Process-Based Decision-Support and Impact Assessment of Extreme Events. Commonwealth Scientific and Industrial Research Organisation (CSIRO) - Water Quality and Environmental Flows Research Group. Townsville, Australia.
- Renschler, C. S. (2008). Integrating Natural Resources and GeoHazards Management: Linking Sustainability and Resilience against Extreme Events. Sustainable Minerals Institute, University of Queensland. Brisbane, Australia.
- Renschler, C. S. (2008). GeoProMT Geospatial Project Management of GIS data from Assessment to Resilience. 2<sup>nd</sup> Australasian Hazards Management Conference. Wellington, New Zealand.
- Renschler, C. S. (2008). Integrating Environmental and Natural Hazard Management: Soil erosion and debris flows. Massey University/Landcare Research. Palmerston North, New Zealand.
- Renschler, C. S. (2008). Integrated Extreme Events Management: Burned Area Emergency Response (BAER) & Cumulative Watershed Effects (CWE) Analysis with GeoWEPP. Queensland Government-Natural Resources and Water (NRW). Brisbane, Australia.
- Renschler, C. S. (2008). Integration of Geohazard and Natural Resources Management. Pacific Islands Applied Geoscience Commission (SOPAC). Suva, Fiji.
- Renschler, C. S. (2008). GeoProMT: A Collaborative Platform Supporting Natural Hazards Project Management from Assessment to Resilience. American Geophysical Union (AGU) Joint Assembly: The Meeting of the Americas, Fort Lauderdale, FL.
- Renschler, C. S. (2007). An Integrated Geospatial Information Management Approach for Disaster Management: Developing the NOAA Community Resilience Index. Gulf of Mexico Alliance (GOMA) Resilience Working Group Meeting, Corpus Christi, TX.
- Renschler, C. S. (2007). Integrated Natural Resources Management is Integrated Disaster Management: Developing a Watershed Community Resilience Index. Symposium "Katrina Disaster and Sustainable Coastal Development: An Integrated Perspective and the Role of Land and Water Sciences" ASA-CSSA-SSSA International Annual Meetings, New Orleans, LA.
- Renschler, C. S. (2007). Challenges of Monitoring & Managing the Response to Volcanic Activity - Developing an Integrated Geohazard Mitigation Approach. International Symposium on Remote Sensing Applications to Natural Hazards, George Washington University/MCEER, Washington, DC.
- Renschler, C. S. (2007). Implementing a Collaborative Platform and Multi-hazard Models to Support the Integrated Management of Extreme Events. 5<sup>th</sup> International Workshop on Remote Sensing for Post-Disaster Response, George Washington University/MCEER, Washington, DC.
- Renschler, C. S. (2007). Integrating Natural Resources and Disaster Management: A holistic perspective of Earth and GeoInformation Systems. Dept. of Earth Systems and GeoInformation Sciences, George Mason University, Fairfax, VA.

- Renschler, C. S. (2007). Integration of GIScience and Environmental Modeling: Spatial Analysis and Management Tools for Natural Resources at Multiple Landscape Scales. Dept. of Natural Resources and Environmental Science, University of Illinois at Urbana-Champaign, Urbana, IL.
- Renschler, C. S. (2006). Process-based Decision-Support for Impact Assessment of Extreme Events at the Watershed Scale. US and Canadian Chapters of the Soil and Water Conservation Society (SWCS), Milwaukee, WI.
- Renschler, C. S. (2006). Panel: Researcher and Policy Expert Panel on Natural Resources Management, US and Canadian Chapters of the Soil and Water Conservation Society (SWCS), Milwaukee, WI.
- Renschler, C. S. (2006). Representation of Landscape Properties and Processes across Scales: Developing Methods and Tools to Facilitate the Interdisciplinary Communication in Extreme Event Analysis and Management. University Consortium for Geographic Information Science (UCGIS), Linthicum Heights, MD.
- Renschler, C. S. (2006). Spatial Erosion Modeling and the Importance of Spatial Data for Evaluating Models. USDA-ARS Southwest Watershed Research Center, Tucson, AZ.
- Renschler, C. S. (2006). m<sup>4</sup>r<sup>4</sup> – A collaborative platform using GIS and remote sensing to manage extreme events. 4<sup>th</sup> International Workshop on Remote Sensing for Post-Disaster Response, Cambridge University/MCEER, Cambridge, England.
- Renschler, C. S. (2006). Integrating GIScience and Environmental Modeling: Design and Implementation of a Cumulative Watershed Effects Analysis and Management Tool. IIHR-Hydroscience & Engineering, College of Engineering, University of Iowa, Iowa City, IA.
- Renschler, C. S. (2006). Monitoring and Modeling Multi-hazards: An Integrated Geospatial Information Management Approach. 2006 Annual Meeting, MCEER—From Earthquake Engineering to Extreme Events, Washington, DC.
- Renschler, C. S. (2006). Developing Modeling and Communication Tools for Response and Mitigation. Staff Presentation, New York State Emergency Management Office (NYSEMO)/MCEER, Albany, NY.
- Renschler, C. S. (2006). Integrated Research and Implementation in GIScience and Extreme Events: Developing Tools for Mitigation and Response. Congressional Presentation, University Consortium for Geographic Information Science (UCGIS), Washington, DC.
- Renschler, C. S. (2006). Communication about Scales – Representing Landscape Properties and Processes in Environmental Models and GIScience. Dept. of Civil Engineering, Indian Institute of Technology (IIT Delhi), New Delhi, India.
- Renschler, C. S. (2005). Need and Development of Dynamic Integrated GIS Enhancement and Support Tools. 3<sup>rd</sup> International Workshop on Remote Sensing for Post-Disaster Response, Chiba University/MCEER, Chiba, Japan.
- Renschler, C. S. (2005). Theory and Applications to Represent Landscape Properties and Processes in Environmental Models and GIScience - Effective Communication about Scales in Natural Hazard and Natural Resources Management. Ecology Centre. C.A. University of Kiel, Kiel, Germany.
- Renschler, C. S. (2005). Linking GIS and Environmental Models for Natural Resources and Natural Hazard Management - Modeling Sediment and Debris Flows across Scales. Department of Earth Systems Analysis, International Institute of Geo-Information Sciences & Earth Observation (ITC), Enschede, The Netherlands.
- Renschler, C. S. (2005). Communication about Scales – Theory and Applications to Represent Landscape Properties and Processes in Environmental Models and GIScience. Institute for Geoinformatics, University of Münster, Münster, Germany.

- Renschler, C. S. (2005). Representing the Scales of Landscape Properties and Processes for Natural Hazard and Natural Resources Management - Erosion Modeling with GeoWEPP. Dept. of Hydrology, Geoforschungszentrum (GFZ), Potsdam, Germany.
- Renschler, C. S. (2004). Soil and Water Conservation with GeoWEPP. Dept. of Soil Sciences, North Carolina State University, Raleigh, NC.
- Renschler, C. S. (2004). Geo-spatial Modeling of Geomorphic Processes after Fires: What, Where and When can one do something about it? Collaborative Investigations of Wildfires, U.S. Geological Survey (USGS), Boulder, CO.
- Renschler, C. S. (2004). Designing Geospatial-Decision-Support Tools to Assess Land Use Management Options. Integrated Nutrient Management Program Work Group, Cornell University, Ithaca, NY.
- Renschler, C. S. (2003). Landscape Modeling with GIS. Dept. of Civil, Structural, and Environmental Engineering, University at Buffalo, Buffalo, NY.
- Renschler, C. S. (2002). The Role of Scales, Process Models and GI Science: Decision Support Tools in Natural Resource Management. Dept. of Crop & Soil Sciences, Cornell University, Ithaca, NY.
- Renschler, C. S. (2001). The Role of Scales, Models, and GIS in Interdisciplinary Research and Environmental Assessment. Dept. of Geology, University at Buffalo, Buffalo, NY.
- Renschler, C. S. (2001). Effective Use of GIS and Environmental Models for Environmental Impact and Risk Assessment. Dept. of Geography, Western Michigan University, Kalamazoo, MI.
- Renschler, C. S. (2001). Environmental Modeling and GI Science in Earth System Analysis and Assessment. Dept. of Geography, University of North Carolina at Chapel Hill, Chapel Hill, NC.
- Renschler, C. S. (2000). GIScience and Environmental Modeling - Research Activities, Interests and Plans. Dept. of Geography, Central Michigan University, Mt. Pleasant, MI.
- Renschler, C. S. (1999). The Role of geomorphologists in land management research and implementation. 30<sup>th</sup> International Binghamton Geomorphology Symposium "Geomorphology in the Public Eye", Binghamton, NY.

### **Abstracts in Refereed Conference Proceedings**

- Renschler, C.S., Yasumiishi\*, M., Mabit, L., & Benmansour, M. (2017). Watershed Modeling Tools for Stakeholders: Utilizing Fallout Radionuclides to Assess Sustainable Management, Climate Change, Disaster Recovery and Community Resilience. 1<sup>st</sup> Joint Meeting of the Japanese Geophysical Union and American Geophysical Union. Tokyo, Japan
- Yasumiishi\*, M., & Renschler, C.S. (2017) Application of Soil Radioactivity Data to Environmental Contamination Recovery. 1<sup>st</sup> Joint Meeting of the Japanese Geophysical Union and American Geophysical Union. Tokyo, Japan
- Yasumiishi\*, M., Nishimura, T., Osawa, K., & Renschler, C.S. (2017). Decoding Environmental Processes Using Radioactive Isotopes for the Post-Radioactive Contamination Recovery Assessment. *Geophysical Research Abstracts Vol. 19*, European Geophysical Union (EGU), Vienna, Austria, April 23–28, 2017 (accepted).
- Demelash\*, N., Flagler\*, J., Renschler, C., Strohmeier, S., Holzmann, H., Feras, Z., Addis, H. Bayu, W., & Klik, A. (2017). Comparison of SWAT and GeoWEPP model in predicting the impact of stone bunds on runoff and erosion processes in the Northern Ethiopian Highlands. *Geophysical Research Abstracts Vol. 19*, European Geophysical Union (EGU), Vienna, Austria, April 23–28, 2017 (accepted).
- Renschler, C. S., Klik, A., Melaku\*, N., & Omotayo\*, A.O. (2016). Quantifying impacts of climate and land use changes on soil and water management, community resilience and sustainable development in agricultural watersheds. OECD-CRP-co-sponsored-ERIA-TU

- Wien-2016-06 Conference: Vulnerability of Agricultural Production Networks and Global Food Value Chains due to Natural Disasters. Vienna, Austria, June 20–24, 2016.
- Calvo\*, L., Renschler, C., Haddad, B., & Palacios, D. (2015). Multidisciplinary determination of Lahar Erosion Dynamics at the Colima Volcano (Mexico). *Geophysical Research Abstracts Vol. 17*, European Geophysical Union (EGU), Vienna, Austria, April 12–17, 2015. 2015-10297-1.
- Patra, A. K., Connor, C., Webley, P., Jones, M., Charbonnier, S. J., Connor, L., Gallo, S., Bursik, M. I., Valentine, G., Hughes, C.G., Aghakhani, H., Renschler C. S., & Kosar T. (2014). Developing Sustainable Modeling Software and Necessary Data Repository for Volcanic Hazard Analysis--Some Lessons Learnt. *2014 American Geophysical Union (AGU) Annual Fall Meeting*, San Francisco, CA, December 15-19, 2014.
- Schoorl, J. M., Jetten, V. G., Coulthard, T.J., Hancock, G.R., Renschler, C.S., Irvine, B.J., Cerdan, O., Kirkby, M.J., & Veldkamp, T. (2014). Landscape - Soilscape Modelling: Proposed framework for a model comparison benchmarking exercise, who wants to join? *Geophysical Research Abstracts Vol. 16*, *European Geophysical Union (EGU)*, Vienna, Austria, April 27–May 2, 2014. 2014-12569-1.
- Miller\*, M. E., Russel, A. M., Billmire, M., Endsley, K., Elliot, W. J., Robichaud, P. R., MacDonald, L. H. & Renschler, C. S. (2013). Rapid Response Tools and Datasets for Post-fire Erosion Modeling: An Online Database to Support Post-fire Erosion Modeling. *2013 American Geophysical Union (AGU) Annual Fall Meeting*, San Francisco, CA, December 9-13, 2013.
- Valentine, G., Patra, A. K., Bajo, J. V., Bursik, M. I., Calder, E., Carn, S. A., Charbonnier, S. J., Connor, C., Connor, L., Courtland, L. M., Gallo, S. Jones, M., Palma Lizana, J. L., Moore-Russo, D., Renschler, C. S., & Rose, W. I. (2013). Online collaboration and model sharing in volcanology via VHub.Org. *2013 American Geophysical Union (AGU) Annual Fall Meeting*, San Francisco, CA, December 9-13, 2013.
- Vodacek, A., Boyd, D.L., van Aardt, J., Renschler, C. S., McKeown, D. M., Collins\*, H., Duvvuri, S., & Pillai, A. H. (2009). Information Products Laboratory for Emergency Response – IPLER. *2009 American Geophysical Union (AGU) Annual Fall Meeting*, San Francisco, CA, December 14-18, 2009.
- Valentine, G. A., Jones, M. D., Bursik, M. I., Calder, E. S., Gall, S. M., Connor, C. Cairn, S., Rose, W. I., Moore-Russo, D., Renschler, C. S., Pitman, B., & Sheridan, M. F. (2009). VHub - Cyberinfrastructure for volcano eruption and hazards modeling and simulation. *2009 American Geophysical Union (AGU) Annual Fall Meeting*, San Francisco, CA, December 14-18, 2009.
- Renschler, C. S., Sheridan, M. F., & Patra, A. (2008). GeoProMT: A Collaborative Platform Supporting Natural Hazards Project Management From Assessment to Resilience. *American Geophysical Union (AGU) Joint Assembly: The Meeting of the Americas*. Fort Lauderdale, FL, May 27-30, 2008.
- Lee\*, T. & Renschler, C. S. (2007). Assessing Best Management Practices Effectiveness in a Small Watershed using a Process-based Based Modeling Approach. *Watershed Management to Meet Water Quality Standards and TMDLS (Total Maximum Daily Load)*, San Antonio, TX, March 10-14, 2007.
- Schneekloth, L., Renschler, C. S., Shannon, M., Hernández, A., & Roussie\*, S. (2007). Exploring the Niagara Escarpment in New York State: An Inventory Approach to Facilitate Ecogovernance. *Leading Edge 2006: Understanding our Resources*. Niagara Escarpment Commission, Georgetown, Ontario, Canada, October 4-6, 2006.
- Renschler, C. S. (2006). A Collaborative GIScience Platform Facilitating Interdisciplinary Communication about Spatiotemporal Scales for Extreme Events. *GIScience 2006*. Muenster, Germany, September 19-23, 2006.

- Renschler, C. S. & Elliot, W. J. (2006) Cumulative Watershed Effects Analysis with the Geospatial Interface for the Water Erosion Prediction Project (WEPP) Proceedings of the 8<sup>th</sup> Federal Interagency Sedimentation Conference (8<sup>th</sup> FISC), Reno, NV. April 2-6, 2006.
- Namikawa\*, L. M., & Renschler, C. S. (2005). Integrating TITAN2D Geophysical Mass Flow Model with GIS. *Eos Trans. American Geophysical Union* 86(52), Fall Meet. Suppl., Abstract V32A-08. San Francisco, CA, December 5-9, 2005.
- Namikawa\*, L. M., and Renschler, C. S. (2005). A Model Performance Measure for Validation of Geophysical Mass Flow Simulations. *8th International Conference on GeoComputation*. University of Michigan, Ann Arbor, MI, 31 July – 3 August, 2005.
- Lee\*, T., & Renschler, C. S. (2004). Investigating the Long Term Impact of BMPs - What has continuous, spatially-distributed watershed modeling to offer? *American Society of Agric. & Biol. Engineers Annual Meeting 2004*, Ottawa, Canada, August 1-4, 2004.
- Lee\*, T., & Renschler, C. S. (2003). Assessing the Long-term Effectiveness of Multiple BMP Settings in Agricultural Watersheds using a GeoWEPP-SWAT Linkage. *Conference on Watershed Management to Meet Water Quality Standards and Emerging TMDL*. Atlanta, GA, 5 March, 2005.
- Meyer, C. R., Renschler, C. & Vining R. C. (2002). Implementing quality control techniques for random number generators to improve stochastic weather generators: the CLIGEN experience. *13<sup>th</sup> Conference on Applied Climatology and the 10th Conference on Aviation, Range, and Aerospace Meteorology*, Portland, OR, May 12-16, 2002.

### **Presenter at Professional Conferences**

<b>Total</b>	<b>44</b>
Association of American Geographers (AAG)	11
Soil Science Society of America (SSSA)	6
American Society of Agricultural and Biological Engineers (ASABE/ASAE)	3
International Environmental Modeling Software Society (iEMSs)	2
International Union of Geodesy and Geophysics (IUGG) General Assembly	2
GeoTech Event/ESRI User Conference	2
American Geophysical Union (AGU) & Joint Japanese GU-AGU (JpGU-AGU)	2
Australasian Hazard Management	1
British Hydrological Society (BHS)	1
International Association of Geomorphologists (IAG)	1
International Binghamton Geomorphology Symposium	1
International Association of Hydrological Sciences (IAHS)	1
International Conf. on Integrating GIS and Environmental Modeling (GIS/EM)	1
International Soil Conservation Organization (ISCO)	1
World Congress of Soil Science (IUSS)	1
Soil Erosion & Dryland Farming (SEDF)	1
Federal Interagency Sedimentation/Hydrologic Modeling Conference	1
GeoTools National Oceanic and Atmospheric Administration (NOAA)	1
Global Change & Terrestrial Ecosystem-Intl. Geosphere-Biosphere Program	1
GeoComputation	1
GIScience	1
Quake Summit	1
Cities on Volcanoes	1

### **Other Relevant Publications and Reports**

- Bian, L., Aldstadt, J., Bittner, T., Jacquez, G., Larsen, C., Mackay, S., Metcalf, S., Patra, A., Renschler, C., Wang, L., & E. Yoo. (2016) Context-Based Smart Modeling. Response to UCGIS Research Challenges Initiative. University Consortium for Geographic

- Information Science (UCGIS). Scottsdale, AZ. Available at:  
<http://ucgis.org/sites/default/files/document-sharing-form-files/209/bian.pdf>
- Adam, M., Challen, G., Renschler, C., Shantharam, S., Vashit, N., & M. Yasumiishi (2014). *Smartphone Disaster Mode - Saving lives with cyber-physical systems. Smart America Challenge*. National Institute for Standards and Technology/The White House. Available at: <https://blue.cse.buffalo.edu/projects/disastermode/>
- Bruneau, M., Constantinou, M., Drury, C., Ellis, D., Hay, J., Lee, G. C., MacPherson, A., Mark, D., Mayrose, J., McMahon, T., Mitchell, C. E., Moskal, M., Murphy, T., Renschler, C. S., Russell, M., Ruyechan, W., Sheridan, M., Sternberg, E., & Weber, A. S. (2005). *White Paper: Extreme Events - Mitigation and Response*. Planning Committee UB 2020 Strategic Strengths. University at Buffalo, Buffalo, NY. 30 p.
- Tinkler, K., Bursik, M., & Renschler, C. S. (2005). *Fieldtrip Guide: Niagara River, Falls, and Gauge*. 36<sup>th</sup> Binghamton Geomorphology Symposium 2005 - Geomorphology and Ecosystems. University at Buffalo, Buffalo, NY. 24 p.
- Renschler, C.S. (2002). *Invited Essay: Diplom in Geoökologie, Promotion in Geographie, und dann... Professor in den USA?! Forum Geökologie 13 (1)*. Association for Geocology, Bayreuth, Germany. 2 p. (In German).

### Professional Newsletter Coverage

- 2010 Helping Haiti – Disaster Response Lab Manages Aerial Data for Earthquake Relief. *GeoWorld*. (October 2010).
- 2010 Damage Assessment Activities Following Haiti Quake. *MCEER Bulletin*, Vol. 24 (1).
- 2009 New Project Seeks to Extend Resilience Framework. *MCEER Bulletin*, Vol. 23 (1).
- 2007 MCEER Movers & Shakers: Renschler Wins Young Scholar Award. *MCEER Bulletin*, Vol. 21 (3).
- 2007 Remote Sensing Institute Receives NOAA CSC Award to Develop Community Resilience Index. *MCEER Bulletin*, Vol. 21 (3).
- 2007 Remote Sensing Institute to Focus on Real World Applications. *MCEER Bulletin*, Vol. 21 (1).
- 2006 Report on the Winter Meeting 2006 in Washington, DC. *Challenges - Newsletter Univ. Consortium Geographic Information Science* (Winter 2006).
- 2004 New Software Helps Foresters Plan Wildfire Prevention Efforts. *The Society of American Foresters' Forestry Source*. By Joe Smith (August 2004).

### Public Media Coverage

- 2017 Poisoned region in Japan becomes woman's field of study at UB. By T.J. Pignataro. *Buffalo News (Front Page)* (03/11/2017)
- 2014 Making smartphones work for us during disasters [Online]. *GNC – Technology, Tools and Tactics for Public Sector IT*. (06/10/2014)
- 2012 Three area officials help with NYS emergency prep [Online]. *Buffalo Business First*. (12/04/2012)
- 2011 Tropical Storm Irene, Scientists Assess Damage in Flooded New York Communities [Live radio interview]. *The Capitol Press Room, Public Broadcasting Council of Central New York, Inc. (WCNY)*, Syracuse, NY (09/27/11)
- 2011 Assessing the Damage in Flooded New York Communities [Live radio interview]. *North East Public Radio (WAMC)* (09/22/11).
- 2010 Mapping Haiti one Satellite Image at a Time [Live radio interview]. *Worldview, Chicago Public Radio (WBEZ)* (03/04/2010)
- 2010 U.B. Students Help "Map Out" Road to Future for Haiti [Television broadcast]. *Local News, Channel 7 (WKBW)*, Buffalo, NY (02/10, 2010)

- 2007 Mega Disasters: The Next Pompeii? [Television series episode]. *The History Channel* (premiered 11/27/2007; reruns broadcasted periodically)
- 2006 Meeting set to launch watershed project [Newspaper]. *Buffalo News* (10/02/2006)
- 2004 UB-developed software tool helps land managers prevent and mitigate environmental impacts, most recently in the case of wildfires [live radio interview]. *WBFO Public Radio* (08/30/2004)
- 2003 What's Next: Mapping Technology Speeds Help to Fire-Scarred Land [Newspaper]. *New York Times, Science and Technology Section "Circuits"* (08/07/2003)
- 2003 Ultimate Guide: Volcanoes [Computer Animation]. *Discovery Channel* (premiered 01/15/2003)

## **SERVICE**

### **Membership in Professional Organizations**

- Since 2012 American Society of Civil Engineers (ASCE) (The ASCE Full Membership was awarded through a nomination and a review process)
- Since 2000 American Geophysical Union (AGU)
- Since 2000 Association of American Geographers (AAG)
- Since 2000 Soil Science Society of America (SSSA)
- Since 1996 International Association of Hydrological Sciences (IAHS)
- 2002-2008 International Environmental Modeling Software Society (iEMSs)

### **Editorial Board Membership and other Editorial Services**

- Since 2006 Editorial Board Member - *Journal of Earth Science Informatics*. Springer-Verlag GmbH, Heidelberg, Germany
- 2013-2014 Editor - *Geomorphorum*. AAG Geomorphology Specialty Group, On-line
- 2010-2011 Guest Editorial Board Member - *Semantic Web Journal*. Special Issue on Semantics for Geochange. On-line Publication
- 2004-2007 Co-Editor – *Geomorphology*, Special Issue on Geomorphology and Ecosystem, Elsevier, The Netherlands
- 2000-2001 Editorial Assistant - *Soil Erosion Research for the 21st Century*, Edited by Ascough II, J.C. and Flanagan, D.C. American Society of Agricultural Engineers (ASAE), St. Joseph, MI

### **Professional Workshops Organized**

<b>Total</b>	<b>21</b>
Bureau of Land Management - National Training Center (BML-NTC)	6
U.S. Army Corps of Engineers - Buffalo District (USACE)	2
Soil and Water Conservation Society (SWCS)	2
UN Food and Agricultural Organization (FAO)/Intl. Atomic Energy Agency IAEA	2
American Society of Agronomy & Soil Science Society of America (ASA-SSSA)	1
Cornell University - Integrated Nutrient Management Program	1
International Institute for Geo-Information Science and Earth Observation (ITC)	1
International Soil Conservation Organization (ISCO)	1
American Society of Agricultural and Biological Engineers (ASABE/ASAE)	1
U.S. Forest Service - Fundamentals of Physical Science Conference	1
Rochester Inst. of Technology (RIT) – Info. Product Lab. f. Emergency Response	1
MCEER – National Institute for Standards and Technology	1
University at Buffalo - Civil, Structural and Environmental Engineering	1

### **Grant Proposal Reviews – Invited On-Site Panels**

- 2014 NSF-National Science Foundation Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) SBIR/STTR
- 2013&2014 NSF-National Science Foundation Crosscutting/NSF-wide - Science, Engineering and Education for Sustainability NSF-Wide Investment (SEES)
- 2011 NSF-National Science Foundation Partnership for Innovation (PFI)
- 2010 USDA/EPA-U.S. Department of Agriculture/Environmental Protection Agency Cooperative State Research, Education, and Extension Service (CSREES)
- 2007 EPA-U.S. Environmental Protection Agency STAR Fellowships – Geography
- 2003-2005 EPA-U.S. Environmental Protection Agency STAR Fellowships – Geography

### **Other Grant Proposal or Fellowship Reviews – Invited Off-Site**

- 2013 NSF-National Science Foundation Earth Sciences (ES)
- 2012 NSF-National Science Foundation Behavioral and Cognitive Sciences (BCS)
- 2011 NSF-National Science Foundation Geography and Spatial Sciences (GSS)
- 2004 Ontario Ministries of Environment, and Agriculture, Food and Rural Affairs Nutrient Management Joint Research Program, Canada (2)
- 2003 WRRI-Water Resources Research Institute University of North Carolina (2)

### **Tenure/Promotion Cases Reviewed**

Texas A&M University, University of Tennessee, North Carolina State University, University of Kiel, University at Buffalo

### **Journal Articles Reviewed**

*Transactions of the ASABE/ASAE (4), Catena (4), Geomorphology (3), Advances in Water Resources (2), Earth Science Review (2), Hydrological Processes (2), Journal of Computing in Civil Engineering (2), Natural Hazards (2), Professional Geographer (2), Transactions in GIS (2), Journal of Earth Science Informatics (2), Annals of the Association of American Geographers (AAG), Decision Support Systems, Decision Support Systems Journal and Electronic Commerce, Environmental Management, Environmental Modelling & Software, International Journal of Geographical Information Science (IJGIS), Journal of Environmental Quality, Journal of Hydrology, Journal of the American Water Resources Association, Journal of World Association of Soil and Water Conservation, Photogrammetric Engineering and Remote Sensing, Soil Science, Soil Science Society of America Journal*

### **Book Proposals Reviewed**

- 2008 Watershed Management, John Wiley & Sons, Inc.
- 2007 Erosion Modeling, Wiley-Blackwell

### **Professional/Disciplinary Service**

- Since 2015 AAG-GSG Advisory Board Member, Association of American Geographers (AAG) Geomorphology Specialty Group (GSG)
- 2014-2015 AAG-GSG Chair
- 2013-2014 AAG-GSG Secretary-Treasurer (elected)
- 2012-2013 AAG-GSG Awards Committee Chair
- 2009-2011 AAG-GSG Awards Committee Member (elected)
- 2003-2007 Steering Committee Member, International Binghamton Geomorphology Symposium (BGS) Series
- 2017 Session and Panel Co-organizer “All Things Nuclear” Association of American Geographers (AAG), Boston, MA, USA
- 2014 Session Chair – GIS Case Studies in Environmental and Landscape Policy,



- 2008 Association of American Geographers (AAG), Tampa, FL  
Session Chair – 2<sup>nd</sup> Center for GeoHazards Studies Conference on Natural Disasters in Small Communities: How Can We Help? Center for GeoHazard Studies, University at Buffalo
- 2005 Conference Chair and Local Host, 35<sup>th</sup> International Binghamton Geomorphology Symposium (BGS) on Geomorphology & Ecosystems, University at Buffalo

### Technical Advisory Committees and other Community Services

- Since 2016 Invited Expert Reviewer for FAO/IAEA, Joint Food and Agriculture Organization (FAO) /International Atomic Energy Agency (IAEA), Division of Nuclear Techniques in Food and Agriculture, United Nations, Vienna, Austria
- Since 2016 Invited Expert Reviewer for US Department of Agriculture (USDA) and Agricultural Research Service (ARS)
- Since 2011 Elected Member, Local Emergency Planning Committee (LEPC), Erie County  
2012 Appointed Member of the New York State RESPOND Commission, Governor Andrew Cuomo, State of New York, Albany, NY.  
Find ways to ensure readiness to respond to future weather-related disasters
- 2009 Member-Center for Resilience Research Work Group, Biosecurity, University of Pittsburgh Medical Center (UPMC). Research Findings on Community Resilience and Their Implications for Federal Policymaking, Capitol Hill-Washington, DC
- 2008 Member – Habitat Conservation Targets for U.S. Environmental Protection Agency defined Areas of Concern, Buffalo and Niagara Riverkeeper, Buffalo, NY

### University Service – University at Buffalo (UB)

- Since 2016 Committee Member UB Faculty Senate Information and Technology Committee
- Since 2015 Faculty Member Institute for Sustainable Transportation and Logistics (ISTL)
- Since 2014 Committee Member Sustainability Teaching Committee
- Since 2010 MCEER Scientist Earthquake Engineering to Extreme Events
- Since 2005 Co-Founder and Advisory Board Center for GeoHazards Studies
- Since 2001 Faculty Member National Center for Geographic Inform. & Analysis (NCGIA)
- 2014 Committee Member Collaborative Initiative on Resiliency (UB/Stony Brook)
- 2014 Organizer Student Course Project Presentations, UB Earth Day Week
- 2014 Presenter Discovery Seminar *Climate Change, Sea Level Rise & NY*
- 2013 Presenter College of Arts and Sciences Intro Course (CAS 101)
- 2013 Presenter UB Summer Lecture Series
- 2012 Panel Member UB Internal Review -NSF Major Research Instrument.
- 2011-2013 Research Scientist Calspan University at Buffalo Research Center (CUBRC)
- 2007-2014 Faculty Advisory Committee Member UB2020 Strategic Strength Initiative: Extreme Event
- 2007-2008 Committee Member Institutional Repository Task Force
- 2007 Panel Member Physical & Engineering Sciences Panel UB2020 Scholars
- 2006-2010 Research Scientist MCEER—From Earthquake Engineering to Extreme Events
- 2006 Member Search Committee, Inst. Local Gov. & Regional Growth

2005	Participant	Niagara-Exploration of Cross Border Research
2004	Committee Member	Curriculum Development - Environment & Society Inst.
2003, 2005	Judge	Poster Competition - Scientific Research Society
2002	Committee Member	Junior Faculty Dean Search (College Arts & Sciences)
2001-2014	Advisory Board Member	Natl. Center for Geographic Inform. & Analysis (NCGIA)
2001-2008	Committee Member	Sloan Professional Sci. Masters (College Arts & Sciences)

### **Departmental Service - Geography**

Since 2006	Director	Geographic Information & Analysis Lab (GIAL)
Since 2001	Director	Landscape-based Environmental System Analysis & Modeling (LESAM) Laboratory
2014	Member	Website Review Committee
2014	Organizer	SUNY at Buffalo - Alumni and Friends Gathering at the Meeting Association of American Geographer (AAG)
2013, 2014	Member	Search Committee (Junior Faculty Searches)
2013	Director	Acting Director of Undergraduate Studies
2010-2016	Organizer	Annual Alan MacPherson Friendly Golf
2009-2013	Organizer	Student Project Presentations for Geogr. Awareness Week
2007-2009	Chair	Graduate Studies Brochure Committee
2007, 2009	Member	Search Committee (Senior Faculty Searches)
2003-2007	Organizer	Student Project Presentations for Geogr. Awareness Week
2003	Member	Geography Digital Library Project Committee
2002-2003	Organizer	Phys. Geogr./Earth Sys. Science Program Development
2002-2003	Member	Redesign Geography Webpage Committee
2002	Member	Search Committee (Junior Faculty Search)
2002	Organizer	Geography Awareness Week
2001-2003	Organizer	Geography Colloquium Series

### **Departmental Service – Other Departments**

2007	Member	Search Committee (Senior Faculty Search) - Geology
2001, 2004	Member	Search Committee (Junior Faculty Searches) – Geology

## **OTHER RELEVANT INFORMATION**

### **Language Capabilities**

English	Superior (speaking, reading, writing and understanding)
German	Superior (native speaker; speaking, reading, writing and understanding)
Dutch	Advanced (speaking, reading and understanding); intermediate (writing)
Spanish	Novice (speaking, reading and understanding)
Hindi	Novice (speaking and understanding)