CURRICULUM VITAE

AMVROSSIOS C. BAGTZOGLOU

Department of Civil and Environmental Engineering
261 Glenbrook Road, Unit 3037
University of Connecticut
Storrs, Connecticut 06269-3037
Tel: (860) 486-4017; Fax: (860) 486-2298
amvrossios.bagtzoglou@uconn.edu

Education:

Ph.D. in Engineering, December 1990
University of California, Irvine (UCI)
Concentration: *Water Resources & Environmental Engineering*
Department of Civil Engineering

M.S. in Civil Engineering, March 1987
Florida Institute of Technology
Concentration: *Hydrology & Water Resources*
Department of Civil Engineering

Diploma (5-year program; equivalent to M.S.) in Civil Engineering, March 1985
Aristotle University of Thessaloniki, Greece
Concentration: *Hydraulic Engineering*
Department of Civil Engineering

Languages: Greek, English; intermediate French; basic Spanish

Personal:
Born January 1962 in Thessaloniki, Greece
Citizen of the United States
Married, father of twin sons

Licensure: Licensed Civil Engineer #45687 (TEE-Greece)

Academic Positions Held:

Aug 2008 – Present	**Professor of Water Resources & Environmental Engineering**
April 2019	**Invited Visiting Professor (1st class)** Institut de Mecanique des Fluides, Université Paul Sabatier, Toulouse III, Toulouse, France
May 2009 – Jan 2019	**Head of Department**
Aug 2008 – Aug 2009	**Associate Head of Department**
Aug 2006 – Aug 2009	**Director, UConn Environmental Engineering Program**
Feb 2005 – Aug 2009	**Undergraduate & Graduate Environmental Engineering Program Coordinator**
Feb 2005 – Aug 2006	**Interim Director, UConn Environmental Engineering Program**
Jun 2006 – Jul 2006 & Jun 2008	**Invited Visiting Professor (1st class)** Institut de Mecanique des Fluides, Institut National Polytechnique, Toulouse, France
Aug 2002 – Aug 2008	**Associate Professor of Water Resources & Environmental Engineering** Department of Civil & Environmental Engineering, University of Connecticut, Storrs, CT
Aug 2002 – May 2006	**Adjunct Associate Professor of Civil Engineering** Department of Civil Engineering & Engineering Mechanics, Columbia University

Jan 1997 – Aug 2002	**Assistant Professor of Water Resources & Geoenvironmental Engineering** **Director, Heffner Laboratory for Hydrologic Research** Departments of Civil Engineering & Engineering Mechanics and Earth & Environmental Engineering, Columbia University, New York, NY
Mar 1997 – Aug 2002	**Assistant Professor of Hydrogeology & Water Resources** Department of Earth & Environmental Sciences, Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
Jun 1995 – Dec 1996	**Adjunct Professor** Earth and Physical Sciences Division, University of Texas at San Antonio, San Antonio, TX

Experience & Institutional Service:

May 2021 – Present	**Chair of Promotion, Tenure & Reappointment Committee (elected post)**
Sep 2021 – Present	**Chair of Department Head Advisory Council (elected post)** Department of Civil & Environmental Engineering, University of Connecticut
Apr 2020 – Present	**Member AAUP Executive Committee (elected post)**
Dec 2019 – Dec 2020	**Chair, Compensation Subcommittee,** **Member AAUP Collective Bargaining Agreement Contract Committee**
Oct 2019 – Oct 2020	**Chair, Dean's Council on Promotion, Tenure & Reappointment (elected post)**
May 2019 – May 2021	**Member, Dean's Council on Promotion, Tenure & Reappointment (elected post)**
Sep 2017 – Present	**Advisor, Tau Beta Pi (the Engineering Honor Society) for SoE**
Sep 2016 – Present	**Member of UConn President's Emeritus & Retirement Committee**
Oct 2016 – Dec 2016	**External Reviewer for Proposed Environmental Engineering Program at UMass Lowell**
Aug 2015 – Sep 2015	**International Review Panel Member, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa**
May 2015 – Jun 2015	**AQAD Evaluator for Graduate Programs in Civil & Environmental Engineering at UMass Lowell**
May 2015 – May 2016	**Member of UConn General Education Assessment Task Force (SoE representative)**
Jul 2010 – Jun 2021	**Member of Joint Highway Research Advisory Council**
Sep 2009 – Aug 2016	**Member of UConn Environmental Policy Advisory Council (SoE representative)**
Oct 2009 – Jun 2012	**Member of Provost's Academic Plan Environmental Committee**
Sep 2008 – May 2009	**Member of School of Engineering Academic Plan Committee**
Sep 2008 – Feb 2009	**Member of School of Engineering Computing Services Academic Council**
May 2008 – May 2009	**Member of Dean's Council on Promotion, Tenure & Reappointment (elected post)** School of Engineering, University of Connecticut
May 2007 – May 2008	**Chair of Promotion, Tenure & Reappointment Committee (elected post)** Department of Civil & Environmental Engineering, University of Connecticut
Mar 2007 – Dec 2008	**Member of UConn Provost's Executive Committee for Academic Plan Implementation on Environment**
Nov 2006 – Dec 2011	**Member of CESE Selection Committee for Graduate Student Multidisciplinary Environmental Research Awards**
Oct 2006 – Present	**Member of CT Institute of Water Resources Advisory Board**
Aug 2006 – Dec 2006	**Environmental Engineering Colloquium Coordinator**
Aug 2006 – Aug 2008	**Inaugural Member of UConn Interdepartmental Courses & Curricula Committee**
Apr 2006 – Present	**Member of Advisory Committee** Center for Environmental Sciences & Engineering, University of Connecticut
Apr 2006 – May 2008	**Member of Promotion, Tenure & Reappointment Committee (elected post)** Department of Civil & Environmental Engineering, University of Connecticut
Jan 2006 – Sep 2006	**University of Connecticut Representative to CUAHSI**
Dec 2004 – Sep 2008	**Member of ABET Accreditation Steering Committee, School of Engineering** **Author of 1st ever Self Study for Environmental Engineering (accredited)**

Aug 2004 – Oct 2005	**Chair of Courses & Curricula Committee, Environmental Engineering Program**
Aug 2003 – May 2009	**Member of Courses & Curricula Committees, Environmental Engineering Program & Department of Civil & Environmental Engineering & School of Engineering**
Sep 1993 – Dec 1996	**Senior Research Engineer**
Sep 1991 – Sep 1993	**Research Engineer** Center for Nuclear Waste Regulatory Analyses, Southwest Research Institute, San Antonio, TX
Mar 1991 – May 1991	**Military Service** Engineering Corps, Hellenic Army, Nafplio, Greece
Nov 1990 – Mar 1991	**Postdoctoral Research Associate** University of California at Irvine & Lawrence Livermore National Laboratory, CA
Jun 1990 – Mar 1991 & Mar 1989 – Aug 1989	**Modeling Consultant**, NBS/Lowry Engineers & Planners, San Diego & Irvine, CA
Jan 1990 – Nov 1990 & Sep 1987 – Sep 1989	**Assistant in Research & Instruction**, University of California, Irvine, CA
Sep 1989 – Jan 1990	**Teaching Associate (Lecturer)**, University of California, Irvine, CA
Sep 1985 – Mar 1987	**Assistant in Research & Instruction**, Florida Institute of Technology, FL
Apr 1985 – Jul 1985	**Research Fellow**, Aristotle University of Thessaloniki, Thessaloniki, Greece

Honors & Awards:

C.R. Klewin, Inc. Award for Excellence in Teaching (2020)
Nominated for *UConn Teaching Innovation Award* (2020)
Fellow of NGWA # 122322 (2016)
Fellow of AWRA # 42176 (2014)
Provost's *Special Achievement Award* for Academic Year 2013-14 (2014)
Provost's *Special Achievement Award* for Academic Years 2011-13 (2013)
Fellow of ASCE # 246584 (2012)
Fellow of the Institution of Civil Engineers # 68479090 (2012)
Florida Institute of Technology *College of Engineering Outstanding Alumni Award* (2011)
Provost's *Special Achievement Award* for Academic Year 2009-10 (2010)
Elected Member of *Connecticut Academy of Science & Engineering* (2009)
Provost's *Special Achievement Award* for Academic Year 2006-07 (2007)
MS Student (Sayma Rahman) was awarded the *American Association for University Women Education Foundation Fellowship* (2007)
PhD Student (Jessica Chau) was awarded the *American Geophysical Union & NSF Travel Award* (2007)
MS Student (Sandrine Baun) was awarded *Best MS Thesis Award* in UConn SoE (2005)
Provost's *Special Achievement Award* for Academic Year 2004-05 (2005)
PhD Student (Elsa Loehmann) received *NSF Graduate Fellowship Honorable Mention Award* (2005)
Member, Distinguished Board of Examiners *Indian Institute of Technology, Kanpur, India*
Nominated for *UConn Outstanding Advisor Award* (2004)
Voted by Students Runner up (2nd out of 50) in the *Faculty of the Year Award* (2004)
Nominated for *UConn Teaching Innovation Award* (2004)
Strathmore's Who's Who, Marquis Who's Who in the World, Marquis Who's Who in America, Marquis Who's Who in Science & Engineering, Outstanding Scholars of the 21st Century (International Biographical Centre)
Elected Member of *New York Academy of Sciences* (1999)
Member, *Sigma Xi* (the Scientific Research Society), 1997–
Represented the USA in the PSAG of the OECD NEA, 1992-1993

UCI, Dissertation Fellowship, 1990
Phi Beta Kappa Scholarship, 1990
UCI, Civil Engineering Department, Outstanding Service Award, 1990
UCI, School of Engineering, Tuition Fellowship, 1988-1989
NATO Scholarship, 1987-1990
Member, *Tau Beta Pi* (the National Honor Engineering Society), 1987–
Fulbright Fellowship, 1985-1987

Memberships:

National Ground Water Association
American Society of Civil Engineers
American Geophysical Union
Hellenic Society of Civil Engineers
Hellenic Hydrotechnical Union
International Association of Hydrological Sciences
American Water Resources Association
International Society of Environmental Forensics
Water Environment Federation

Committee Memberships:

Member, *AGU* Hydrology Section Groundwater Technical Committee, 2001-08
Member, *ASCE* Groundwater Hydrology Committee, 2001-08
Member, *IAEG* Commission 14 (Underground Disposal of Waste), 2001-09
Member, *Cheshire Community* Advisory Panel (sponsored by CT DPH), 2002-04
Subject Matter Expert of *Pacific Northwest National Laboratory* (US DOE), 2002-09
Member, *Science & Technical Advisory Committee*, EPA Long Island Sound Study, 2004-09
Member, *Science Advisory Board*, SE Asia Environmental Forensics Conference, 2004-05
Member, *Water Environment Federation*, Groundwater Committee, 2006-08
Member, Steering Committee, *Multidisciplinary International Society on Inverse Problems in Science and Engineering*, 2008-09

Conference Chair:

36th Mid-Atlantic Industrial & Hazardous Waste Conference, Storrs, CT, 2004
37th Mid-Atlantic Industrial & Hazardous Waste Conference, Cincinnati, OH, 2007

Conference Session Chair:

Inverse Methods for Environmental Applications, Inverse Problems, Design and Optimization Symposium, Miami, FL, 2007
Pollution Source Identification-Environmental Forensics, 37th Mid-Atlantic Industrial & Hazardous Waste Conference, Cincinnati, OH, 2007
Sensors III, 2nd International Conference on Advanced Technologies for Homeland Security, Storrs, CT, 2004.
Earth-Atmosphere Interaction, Space-Based Water Resources and Hydrology, 9th ASCE Biennial International Conference on Engineering, Construction and Operations in Challenging Environments, Houston, TX, 2004
Water Quality Modeling, 33rd Mid-Atlantic Industrial & Hazardous Waste Conference, Riverdale, New York, NY, 2001
Selected Issues in Groundwater Flow & Transport, AGU Spring Meeting, Boston, Massachusetts, 2001
Fractured Porous Media, XII International Conference on Computational Methods in Water Resources, Crete, Greece, 1998
Flow in Rivers, Lakes, Lagoons and Pipes, XII International Conference on Computational Methods in Water Resources, Crete, Greece, 1998
Subsurface Transport, X International Conference on Computational Methods in Water Resources, Heidelberg, Germany, 1994
Treatment of Spatial Variability in Probabilistic Safety Assessments, 14th Meeting,

Probabilistic System Assessment Group of the Radioactive Waste Management Committee of the OECD Nuclear Energy Agency, Santa Fe, New Mexico, 1993
Software Developments, IX International Conference on Computational Methods in Water Resources, Denver, Colorado, 1992

Symposium Organizer:

Methods for Identifying Contaminant Source Location, Release History & Boundary Initial Conditions, AGU Spring Meeting, Boston, Massachusetts, 2001
Advanced Mathematical Modeling in the Waste Management Program, 3rd SIAM Conference on Mathematical & Computational Issues in Geosciences, San Antonio, Texas, 1995
Flow and Transport through Unsaturated Fractured Rock, Evans Workshop VII, Phoenix, Arizona, 1995
Coupling Regulatory Policies with Geosphere Transport Models, AGU Spring Meeting, Baltimore, Maryland, 1995

Scientific/Organizing Committee Member:

International Conference on Infrastructure Development & Environment, Abuja, Nigeria, 2006
10th ASCE Biennial International Conference on Engineering, Construction & Operations in Challenging Environments, Houston, TX, 2006
IAHR International Symposium on Ground Water Hydraulics in Complex Environments, Toulouse, France, 2006
International Conference on Energy, Environment and Disasters, Charlotte, NC, 2005
Southeast Asia Environmental Forensics Conference, Taipei, Taiwan, 2005
2nd International Conference on Advanced Technologies for Homeland Security, Storrs, CT, 2004
9th ASCE Biennial International Conference on Engineering, Construction & Operations in Challenging Environments, Houston, TX, 2004
15th Engineering Mechanics Division ASCE Conference, New York, NY, 2002
4th International Conference on the Protection & Restoration of the Environment, Halkidiki, Greece, 1998
36th U.S. Rock Mechanics Symposium (NYRocks97), New York, NY, 1997
1st European Conference on Geostatistics for Environmental Applications, Lisbon, Portugal, 1996

Research Projects Directed/Funded:

Total as PI or co-PI: $15,738,400 Personal as PI or co-PI: $5,085,000
(1992-2020) Annual Research Funding (Expenditures): $562K ($182K)

05/2020–04/2023	"Resilience and Grid Hardening", *Eversource Energy*, with co-PIs W. Zhang, J. Zhu, M. Chrysochoou ($500.0K–personal share 40%–cumulative personal $5,085K; total $15,738.4K)
01/2020–12/2024	"IUSE/PFE: RED Innovation beyond Accommodation: Leveraging Neurodiversity for Engineering Innovation", *NSF*, with co-PIs M. Chrysochoou, R. Gabriel, P.C. Diplock, A. Esmaili Zaghi ($2,000K–personal share 20%–cumulative personal $4,585K; total $15,238.4K)
10/2010–04/2021	"Environmental Engineering Internships", *State of Connecticut DPH*, ($158K–personal share 100%–cumulative personal $4,185K; total $13,238.4K)
01/2018–12/2020	"Evaluation of Grid Resilience Activities with a Total System Performance Assessment Model informed by Optimization and Economic Methodologies", *Eversource Energy*, with co-PIs W. Zhang, P. Borochin, M. Chrysochoou ($292.0K–personal share 40%–cumulative personal $4,027.0K; total $13,080.4K)
06/2017–05/2022	"Cooperative Hydrogeophysics and Water-Resources Research", *United States Geological Survey*, with co-PI J. Lane ($318.2K–personal share 100%–cumulative personal $3,910.2K; total $12,788.4K)
10/2016–12/2017	"Evaluation of Grid Resilience Activities with a Total System Performance Assessment Model", *Eversource Energy*, with co-PIs W. Zhang, P. Zhang, D. Wanik ($135.0K–personal share 20%–cumulative personal $3,592.0K; total $12,470.2K)
08/2015–01/2017	"Investigation of Capillary Rise Induced Chromium Blooms", *AECOM*, with co-PI M. Chrysochoou ($125.4K–personal share 20%–cumulative personal $3,550.0K; total $12,335.2K)

04/2016–03/2021	"PIRE: Taming Water in Ethiopia: An Interdisciplinary Approach to Improve Human Security in a Water-Dependent Emerging Region", *NSF*, Senior Personnel with PI E. Anagnostou and several others ($4,274.9K–personal share 5%–cumulative personal $3,524.9K; total $12,209.8K)
09/2014–12/2015	"Assessing and Developing Four Undergraduate Programs in the College of Engineering and Information Technology, University of Business and Technology", *Kingdom of Saudi Arabia*, with co-PIs R. Ammar and R. Bansal ($260K–personal share 14%–cumulative personal $3,311.2K; total $7,934.9K)
08/2012–08/2015	"Networked Biomass Energy Harvesting Systems for Sustainable Cyber-Aquatic Applications", *NSF-CPS*, with Co-PIs L. Wang et al. ($976.8K–personal share 0%–cumulative personal $3,274.8K; total $7,674.9K)
08/2011–12/2012	"Fenton River Gurleyville Rd. Bridge Rating Curve", *AES/Facilities-UCONN*, with Co-PI G. Warner ($9.5K–personal share 0%–cumulative personal $3,274.8K; total $6,698.1K)
01/2012–12/2014	"Civil and Environmental Engineering Senior Design Projects", *Various Industrial Sponsors*, ($12K–personal share 100%–cumulative personal $3,274.8K; total $6,688.6K)
07/2011–06/2012	"Analysis and Design of Rotating Cylinder with Micro Fins for Optimum Lift and Drag Force in a Reciprocating Renewable Hydropower Harvesting System", *USDA NIFA* via subcontract w/ *eGen LLC*, with Co-PI R. Malla ($82K–personal share 60%–cumulative personal $3,262.8K; total $6,676.6K)
05/2011–12/2012	"Optimal Relocation and Operation of Well A in the Fenton Well Field", *AES/Facilities-UCONN*, with Co-PI G. Warner ($105K–personal share 90%–cumulative personal $3,213.6K; total $6,594.6K)
01/2011–10/2015	"The Ethiopian-U.S. Partnership in Sustainable Water Resources: Capacity Building in Education, Research and Outreach", *USAID-HED*, with Co-PIs M. Gebremichael, M. Accorsi, M. Anagnostou, G. Wang, C. Atkinson-Palombo, J. Osleeb and F. Shah ($1,100K–personal share 10%–cumulative personal $3,119K; total $6,489.6K)
09/2010–03/2013	"Advanced Numerical Simulation of Electromagnetic Wave Propagation", US DOD, ($176.1K–personal share 100% –cumulative personal $2,851K; total $5,231.6K)
09/2010–08/2012	"Assessing and Developing Four Undergraduate Programs in the College of Engineering, Al-Baha University", *Kingdom of Saudi Arabia*, with PIs K. Kazerounian and R. Ammar, and Co-Is R. Bansal and M. Wood ($155K–personal share 14% –cumulative personal $2,675K; total $5,055.5K)
07/2010–06/2011	"Advanced Concrete and Geo-Materials for Resilient Transportation Infrastructure: Material Level to System Level Integrated Design", *DHS Center of Excellence for National Transportation Security*, with Co-PIs D. Basu, M. Chrysochoou, A. Zofka, M. Accorsi ($50K–personal share 0% –cumulative personal $2,653.3K; total $4,900.5K)
08/2008–08/2010	"Reversing Urban Sprawl: A Reclaimability Index Approach for Reviving Downtown Brownfields", *DOT Center for Transportation and Urban Planning*, with Co-PIs M. Chrysochoou, K. Segerson, N. Garrick ($149.7K–personal share 15%–cumulative personal $2,653.3K; total $4,850.5K)
07/2009–06/2010	"Strengthening and Modeling of Earth Embankments under High Loads", *DHS Center of Excellence for National Transportation Security*, with Co-PIs M. Chrysochoou and D. Basu ($118.4K–personal share 10%–cumulative personal $2,630.8K; total $4,700.8K)
06/2009–12/2009	"Ethiopian-UConn Partnership in Sustainable Development & Management of Water Resources", *USAID Higher Education for Development Africa: U.S. Higher Education Initiative Planning Grants*, with several Co-PIs ($60K–personal share 0%–cumulative personal $2,619K; total $4,582.4K)
10/2008–05/2009	"Assessing the Performance of a Wastewater Treatment Technology for the Removal of Nitrogen and BOD", *Entex Technologies Inc.*, with Co-PIs J. Bushey, C. Perkins ($12.3K–personal share 20%–cumulative personal $2,619K; total $4,522.4K)
09/2008–06/2009	"Fluid-Structure Interaction Analysis and Testing of an Innovative Small-Scale, Environmentally Friendly, Low-Head Hydropower Concept", *NativeNano LLC*, with Co-PIs R. Malla, B. Cetegen, T. Barber ($177.8K–personal share 37%–cumulative personal $2,616.5K; total $4,510.1K)

01/2009–12/2009	"Inland Waterways: Sensing, Monitoring and Strengthening of Levees", *DHS Center of Excellence for National Transportation Security*, with Co-PI M. Chrysochoou ($20K–personal share 50%–cumulative personal $2,550.7K; total $4,332.3K)
08/2008–07/2012	"MRI: Development of Instrumentation for an Autonomous Underwater Sensor Network System", *NSF/CISE*, with Co-PI J.-H. Cui et al. ($500K from NSF and $150,000 cost sharing personal share 6%–cumulative personal $2,540.7K; total $4,312.3K)
01/2008–06/2009	"Hydrogeologic Characterization and Modeling at the Naval Base Ventura County, Port Hueneme, CA", *Naval Facilities Engineering Command*, ESTCP Project CU-0421, Contract N47408-04-C-7514, with Co-PI G. Robbins ($199.7K–personal share 50%–cumulative personal $2**,**501.7K; total $3**,**662.3K)
06/2007–01/2008	"Integration of Global Precipitation Measurement Data Product with the Hydrologic Engineering Center-Hydrologic Modeling System", *NASA*, Subcontract with University of Mississippi and Tennessee Technological University ($15K–personal share 100%–cumulative personal $2,401.9K; total $3,462.6K)
06/2007–05/2010	"Developing a Novel Infrastructure for Underwater Acoustic Sensor Networks", *NSF*, with Co-PI J. Cui et al. ($320K awarded from original budget of $800K–personal share 9%–cumulative personal $2,386.9K; total $3,447.6K)
11/2006**–**12/2010	"Defining Optimality Criteria for the Effective Use of Satellite Precipitation Datasets in Land Surface Hydrology and Water Cycle Studies", *NASA*, with Co-PI E. Anagnostou ($433K Personal share 40%–cumulative personal $2,358.1K; total $3,127.6K)
05/2006–05/2007	"Detailed Hydraulic Assessment Using a High-Resolution Piezocone Coupled to the GeoVis: Statistical, Modeling, and Tracer Support Activities at the NETTS, Port Hueneme, California", *Naval Facilities Engineering Service Center*, ESTCP Project CU-0421, Contract N47408-04-C-7514, with Co-PI G. Robbins ($60.8K–personal share 35%–cumulative personal $2**,**184.9K; total $2**,**694.6K)
12/2005–06/2006	"Enhancement of Undergraduate Environmental Engineering Laboratory Curriculum by Adding Portable Time-Domain Reflectometer (TDR) Array", *SoE Dean's Undergraduate Laboratory Initiative*, with Co-PIs L. Liu and A. MacKay ($22.3K–personal share 33%–cumulative personal $2**,**163.6K; total $2**,**633.8K)
08/2004-06/2006	"EPA Superfund Innovative Technology Evaluation Project at the Roosevelt Mills, Vernon, CT", *Town of Vernon (HUD EDI Program)*, with Co-PI A. Dahmani ($195K–personal share 75% cumulative personal $2,096.7K; total $2,611.5K)
01/2003-12/2005	"Long-Term Analysis of the University of Connecticut's Fenton River Water Supply Wells on The Habitat of the Fenton River", *UCONN AES (with USGS matching funds)*, with Co-PIs G. Warner, F. Ogden ($524K–personal share 33%–cumulative personal $1,950.4K; total $2,416.5K)
05/2004-05/2006	"Chaotic Advection Enhanced Remediation" *USGS IWR* ($162.1K–personal share 100%–cumulative personal $1,775.8K; total $1,892.5K) (including UConn matching funds)
01/2004-01/2005	"Development of an Efficient Inverse Method for Near Real-Time Atmospheric Contamination Source Identification", *UCRF* ($15.9K–personal share 100%–cumulative personal $1,613.7K; Total $1,730.4K)
12/2003-12/2005	"Investigation of Enhanced Characterization and Representation of Flow through Karst Aquifers", with multiple PIs, *AWWARF* ($500K; UCONN $50K–personal share 100% cumulative personal $1,597.8K; total $1,714.5K)
09/2001–09/2004	"Chaotic Advection Enhanced Natural Attenuation", Proposal co-authored by advisee (P. Oates) was awarded the *NSF* Research Fellowship ($90K–personal share 100%–cumulative personal $1,547.8K; total $1,664.5K)
06/2001–06/2002	"Systems Approach to Earth & Environmental Engineering", with 10 other Co-PIs, *Columbia University Academic Quality Fund* ($389K–personal share 10%–cumulative personal $1,457.8K; total $1,574.5K); participation in this 3-yr project ended in 2002; only 1/3 counts towards totals
03/2001–09/2001	"Campus Environmental Sustainability Master Plan", *ARUP Corporation, New York City* ($23.1K–personal share 100%–cumulative personal $1,444.8K)

02/2000–09/2000	"Development of a Mechanistic Model for Preferential Unsaturated Flow in Fractured Rock", *SwRI, X99219N/20-1402* under *NRC-02-97-009* ($27.5K–personal share 100%–cumulative personal $1,421.7K)
08/1999–08/2000	"Pollution Source Identification", Proposal co-authored by advisee (J. Atmadja) was awarded the *Bakhmeteff* Fellowship in Fluid Mechanics ($12K–personal share 100%–cumulative personal $1,394.2K)
09/1999–09/2000	"Identification of Groundwater Pollution Sources", *NGWA/API* equipment purchase grant, with Co-PI J. Atmadja ($2K–personal share 100%–cumulative personal $1,382.2K)
04/1999–10/1999	"Investigation of the Dripping Phenomenon through Rough Fractures", *SwRI, 999117P/20-1402-661* under *NRC-02-97-009* ($57.4K–personal share 100%–cumulative Personal $1,380.2K)
08/1999–09/2000	"Lower Hudson River Model Calibration", *Columbia Earth Institute*, with Co-PI P. Schlosser ($5K–personal share 100%–cumulative personal $1,322.8K)
06/1997–12/1999	"Development of Hydrologic Research Laboratory Capabilities at Columbia University", *Heffner Foundation*, with Co-PI R. Testa ($120K–personal share 100%–cumulative personal $1,317.8K)
11/1996–11/1998	"Microbial Plugging of Pores and Fractures in Tuff: Effects on Thermo-Hydrologic Modeling", *SwRI ACR, 20-9998*, with 2 other Co-PIs ($119.5K–personal share 100%–cumulative personal $1,197.8.5K)
02/1996–04/1997	"Isothermal Flow Code Development – SUFLAT (Stochastic Unsaturated Flow and Transport)", *U.S. NRC, FIN W6270* ($5.8K–personal share 100%–cumulative personal $1,078.3K)
02/1996–09/1996	"Yucca Mountain Isothermal Flow Applied Technical Investigations", *U.S. NRC, FIN W6270* ($104.5K–personal share 100%–cumulative personal $1,072.5K)
10/1994–01/1996	"Subregional Hydrogeologic Flow and Transport Processes", *U.S. NRC, FIN W6270* ($412K personal share 100%–cumulative personal $968K)
10/1992–09/1994	"Stochastic Analysis of Flow and Transport in Unsaturated, Fractured Rock", *U.S. NRC, FIN B6664* ($455.5K–personal share 100%–cumulative personal $556K)
10/1992–09/1994	"Development of a Neuro-Fuzzy Methodology for Simulation of Flow in Heterogeneous Porous Media with Limited and/or Imprecise Parameters", *SwRI Advisory Committee for Research, 20-9740*, with 2 other Co-PIs ($100.5K–personal share 100%–cumulative personal $100.5K)

Reviewerships & Editorships:

Peer-Review Panels	*SwRI* Internal Research & Development Program, *NIH* Superfund Hazardous Substances Basic Research Program, *Hellenic Ministry* of National Education & Religious Affairs, Directorate of the *European Union* Support Framework, *NSF* Hydrologic Sciences Program, *NSF* Division of Earth Sciences, *State of Connecticut* Institute of Water Resources, *NIWR-USGS* Review Board for Aquatic Sciences, *DOE Office of Science Review* Panel (Environmental Management Science Program), *University of Vermont* UTC
External Referee for PhD Dissertations	Anirban Dhar (*Indian Institute of Technology, Kanpur*) Minh-Phuong Lam (*Institut National Polytechnique de Toulouse*) Raj Mohan Singh (*Indian Institute of Technology, Kanpur*) Nahla Mansouri (*Institut National Polytechnique de Toulouse*) Hamed Koohpayehzadeh Esfahani (*James Cook University*)
External Referee for Tenure/Promotion	Pengfei Zhang (*City University of New York*) Mary Poulton (*University of Arizona*) Britt Holmen (*University of Vermont*) Athanasios Karamalidis (*Carnegie Mellon University*) Lilit Yeghiazarian (*University of Cincinnati*) Yilma Seleshi (*Addis Ababa University*)

Technical Journals	Water Resources Research, Advances in Water Resources, Water Resources Bulletin, J. of Water Resources Association, Ground Water, Transport in Porous Media, J. of Hydrology, ASME J. of Fluids Engineering, Water Research (J. of IAWQ), J. of Mathematical Geology, Stochastic Environmental Research & Risk Assessment, Transportation Research Board, Environmental Modelling & Software, ASCE J. of Environmental Engineering, ASCE J. of Water Resources Planning and Management, Mechanics Research Communications, Environmental Forensics, Geophysical Research Letters, J. of Water, Air & Soil Pollution, Applied Mathematics Letters, Water Resources Management, Numerical Methods for Heat & Fluid Flow, ASCE J. of Materials in Civil Engineering, Environmental Engineering Science, Inverse Problems in Science and Engineering, J. of Hydroinformatics, Water International, Hydrological Processes, Estuarine Coastal and Shelf Science, ASCE J. of Hydrologic Engineering, Environmental Monitoring and Assessment, J. of Contaminant Hydrology, Water Environment Research, Hydrogeology, Chemical & Biochemical Eng Quarterly, IEEE Inter. Geoscience & Remote Sensing, ICC'08 Wireless Communications, Vadose Zone Journal, The Open Environmental Engineering Journal, J. of Environmental Management, Lakes & Reservoirs: Research and Management, Atmospheric Environment, Journal of Hydro-Environment Research, Journal of Advances in Information Fusion, Marine Pollution Bulletin, Hydrobiologia, Mathematical Problems in Engineering, Journal of Applied Mathematics, SpringerPlus, Journal of Computational Physics
Technical Books	CRC Press (Environmental Science), McGraw-Hill (Fluid Mechanics), Lewis (Ground Water Modeling), Wiley (Understanding Mathematical and Statistical Techniques in Hydrology)
Editorial Board Member	Environmental Forensics (2003-2005) Environmental Forensics (2007–) The Open Civil Engineering Journal (2007-2012) The Open Environmental Engineering Journal (2008-2010)
Associate Editor	Ground Water (1994-1997) Water Resources Research (1999-2001) Water Resources Research (2001-2004) Environmental Forensics (2002-2003) Journal of the American Water Resources Association (2002-2007) Inverse Problems in Science and Engineering (2007-2009) The Open Environmental Engineering Journal (2010–2012) Stochastic Environmental Research and Risk Assessment (2006–)
Editor	*Water, Air, and Soil Pollution*: Advances in Remediation Technology (2004-2006) Environmental Engineering Topical Editor for the *Encyclopedia of Earth* (2006–2014) *Water, Air, and Soil Pollution*: Innovative Remediation Technologies for Pollution Abatement (2007-2008)

A. LIST OF TECHNICAL PUBLICATIONS

Google Scholar Citations: ~3350; h-index: 30; i10-index: 57; RG: 35.4 (top 7%)

A.1 REFEREED PUBLICATIONS

A.1.1 BOOKS OR MONOGRAPHS

1) Ababou, R., and A.C. Bagtzoglou, 1993, *BIGFLOW: A Numerical Code for Simulating Flow in Variably Saturated, Heterogeneous Geologic Media*, NUREG/CR-6028, Monographic Series ISSN 0278-1670, Washington, DC: United States Nuclear Regulatory Commission (NRC), pp.139.
2) Bagtzoglou, A.C., 1994, *Stochastic Analysis of Large-Scale Unsaturated Flow and Transport in Layered, Heterogeneous Media, CNWRA 94-012*, Monographic Series ISSN 1547-3023, San Antonio, Texas: Southwest Research Institute, pp.105.
3) ♦Bagtzoglou, A.C., S. Mohanty[*], A. Nedungadi, T.-C.J. Yeh, and R. Ababou, 1994, *Effective Hydraulic Property Calculations for Unsaturated, Fractured Rock with Semi-Analytical and Direct Numerical Techniques: Review and Applications, CNWRA 94-007*, Monographic Series ISSN 1547-3023, San Antonio, Texas: Southwest Research Institute, pp.168.

A.1.2 ARCHIVAL JOURNAL PAPERS OR BOOK CHAPTERS

(A * after a co-author's name indicates student or post-doc working under Bagtzoglou's direct supervision)
(A [#] after the year indicates short archival journal paper)
(A [##] after the year indicates book chapter)

4) Grafiadelis, M., A.C. Bagtzoglou, and E. Georgiadis, 1986, "Development of a System for Controlling Air Temperature in Greenhouses by Spraying Geothermal Water on the Roof" (in Greek with extended summary in English), *Scientific Bulletin*, Center for Agricultural Research of Northern Greece, Vol. 2: 51-68.
5) Bagtzoglou, A.C., A.F.B. Tompson, and D.E. Dougherty, 1991[##], "Probabilistic Simulation for Reliable Solute Source Identification in Heterogeneous Porous Media", Chapter in *Water Resources Engineering Risk Assessment*, J. Ganoulis (ed.), NATO ASI Series, G 29, Springer-Verlag, Heidelberg, pp. 189-201.
6) Bagtzoglou, A.C., A.F.B. Tompson, and D.E. Dougherty, 1992, "Projection Functions for Particle-Grid Methods", *Numerical Methods for Partial Differential Equations*, 8(4): 325-340.
7) Bagtzoglou, A.C., D.E. Dougherty, and A.F.B. Tompson, 1992, "Application of Particle Methods to Reliable Identification of Groundwater Pollution Sources", *Water Resources Management*, 6(1): 15-23.
8) Guymon, G.L., A.C. Bagtzoglou, and M.R. Welch, 1992, "A Lumped Stream-Aquifer Model to Assess Reclaimed Water Impacts", *Water Resources Bulletin (JAWRA)*, 28(2): 361-370.
9) Manolis, G.D., and A.C. Bagtzoglou, 1992, "A Numerical Comparative Study of Wave Propagation in Inhomogeneous and Random Media", *Journal of Computational Mechanics*, 10(6): 397-413.
10) Dougherty, D.E., and A.C. Bagtzoglou, 1993, "A Caution on the Regulatory Use of Numerical Solute Transport Models", *Ground Water*, 31(6): 1007-1010.
11) Bagtzoglou, A.C., M.N. Khan, G.L. Guymon, and J.R. Thornton, 1993, "Groundwater Quality Management of a Low Inertia Basin: Application to San Mateo Basin, California", *Water Resources Management*, 7(3): 189-205.
12) Ababou, R., A.C. Bagtzoglou, and E.F. Wood, 1994, "On the Condition Number of Covariance Matrices in Kriging, Estimation, and Simulation of Random Fields", *Journal of Mathematical Geology*, 26(1): 99-133.
13) Sagar, B., A.C. Bagtzoglou, R.T. Green, and S.A. Stothoff, 1995[##], "Measurement and Modeling of Flow through Unsaturated Heterogeneous Rock in the Context of Geologic Disposal of Nuclear Waste", Chapter in *Heat, Mass, and Momentum Transfer in Environmental Flows* (S.A. Sherif *et al.*, eds.), HTD-Vol. 321/FED-Vol.233, American Society of Mechanical Engineers, New York, NY, pp. 271-284.

♦ was placed in the required reading material list of the Petroleum Engineering and Geosciences Program of *Stanford University*

14) Ofoegbu, G.I., A.C. Bagtzoglou, R.T. Green, and M. Muller, 1999, "Effects of Perched Water on Thermally Driven Moisture Flow at the Proposed Yucca Mountain Repository for High-Level Waste", *Nuclear Technology*, 125(2): 235-253.
15) Cesano, D.[*], B. Olofsson, and A.C. Bagtzoglou, 2000, "Parameters Regulating Groundwater Inflows into Hard Rock Tunnels–A Statistical Study of the Bolmen Tunnel in Southern Sweden", *Tunnelling and Underground Space Technology*, 15(2): 153-166.
16) Atmadja, J.[*], and A.C. Bagtzoglou, 2001, "Pollution Source Identification in Heterogeneous Porous Media", *Water Resources Research*, 37(8): 2113-2125.
17) †Atmadja, J.[*], and A.C. Bagtzoglou, 2001, "State of the Art Report on Mathematical Methods for Groundwater Pollution Source Identification", *Environmental Forensics*, 2(3): 205-214.
18) Bagtzoglou, A.C., 2002[#], "Testing a Model for Solute Transport Between Open Channel Flows and Porous Streambeds", *Acta Universitatis Carolinae Geologica*, 46(2/3): 88-91.
19) ‡Habel, F.[*], C. Mendoza, and A.C. Bagtzoglou, 2002, "Solute Transport in Open Channel Flows and Porous Streambeds", *Advances in Water Resources*, 25(4): 455-469.
20) Bagtzoglou, A.C., 2002[#], "Development and Testing of a Model for Predicting Dripping Into Unsaturated Rock Underground Excavations", *Acta Universitatis Carolinae Geologica*, 46(2/3): 335-339.
21) Bagtzoglou, A.C., 2003, "Perched Water Bodies in Arid Environments and their Relevance as Hydrologic Constraints for Recharge Rate Estimation: Case of Yucca Mountain", *Environmental Forensics*, 4(1): 47-62.
22) Bagtzoglou, A.C., 2003, "Perched Water Bodies in Arid Environments and their Relevance as Hydrologic Constraints for Recharge Rate Estimation: A Modeling Methodology", *Environmental Forensics*, 4(1): 39-46.
23) Bagtzoglou, A.C., and J. Atmadja[*], 2003, "The Marching-Jury Backward Beam Equation and Quasi-Reversibility Methods for Hydrologic Inversion: Application to Contaminant Plume Spatial Distribution Recovery", *Water Resources Research*, 39(2), 1038: 10-1/10-14.
24) Cesano, D.[*], A.C. Bagtzoglou, and B. Olofsson, 2003, "Quantifying Fractured Rock Hydraulic Heterogeneity and Groundwater Inflow Prediction in Underground Excavations: The Heterogeneity Index", *Tunnelling and Underground Space Technology*, 18(1): 19-34.
25) Bagtzoglou, A.C., 2003, "On the Non-Locality of Reversed Time Particle Tracking Methods", *Environmental Forensics*, 4(3): 215-225.
26) Cornacchiulo, D.[*], and A.C. Bagtzoglou, 2004, "Geostatistical Reconstruction of Gaps in Near-Surface Electrical Resistivity Data", *Vadose Zone Journal*, 3(4): 1215-1229.
27) Bagtzoglou, A.C., and J. Atmadja[*], 2005[##], "Mathematical Methods for Hydrologic Inversion: The Case of Pollution Source Identification", Chapter in *Environmental Impact Assessment of Recycled Wastes on Surface and Ground Waters. Volume 3: Engineering Modeling and Sustainability.* Kassim, T.A. (ed.). The Handbook of Environmental Chemistry, Water Pollution Series, Volume 5, Part F, Springer-Verlag, Heidelberg-New York, (ISBN 3-540-00268-5), pp. 65-96.
28) Bagtzoglou, A.C., and S.A. Baun[*], 2005, "Near Real-Time Atmospheric Contamination Source Identification by an Optimization-Based Inverse Method", *Inverse Problems in Science and Engineering*, 13(3): 241-259.
29) Habel, F.[*], and A.C. Bagtzoglou, 2005, "Wave Induced Flow and Transport in Sediment Beds", *Journal of the American Water Resources Association*, 41(2): 461-476.
30) Bagtzoglou, A.C., 2006[#], "Advances in Remediation Technology", *Water, Air, and Soil Pollution: Focus*, 6(1-2): 1-4.
31) Novikov, A.[*], and A.C. Bagtzoglou, 2006, "Hydrodynamic Model of the Lower Hudson River Estuarine System and its Application for Water Quality Management", *Water Resources Management*, 20(2): 257-276.
32) Nadim, F.[*], A.C. Bagtzoglou, and J. Iranmahboob, 2006, "Management of Coastal Areas in the Caspian Sea Region: Environmental Issues and Political Challenges", *Journal of Coastal Management*, 34(2): 153-165.
33) Hossain, F.[*], A.C. Bagtzoglou, N. Nahar and M.D. Hossain, 2006, "Statistical Characterization of Arsenic Contamination in Shallow Wells of Western Bangladesh", *Hydrological Processes*, 20(7): 1497-1510.
34) Bagtzoglou, A.C., and D. Kim[*], 2006, "Modeling Contaminant Transport at the Pore-Micropore Interface", *Water, Air, and Soil Pollution: Focus*, 6(1-2): 207-225.

† 4th most widely cited article in *Environmental Forensics* in the history of the journal per Taylor & Francis
‡ 5th most widely downloaded article in *Advances in Water Resources* during 2003 per Elsevier

35) Hossain, F.[*], E.N. Anagnostou and A.C. Bagtzoglou, 2006, "On Latin Hypercube Sampling for Efficient Uncertainty Estimation of Satellite Rainfall Observations in Flood Prediction", *Computers and Geosciences*, 32(6): 776-792.
36) Bagtzoglou, A.C., N. Assaf-Anid, and R. Chevray, 2006, "Effect of Chaotic Mixing on Enhanced Biological Growth and Implications for Wastewater Treatment: A Test Case with *Saccharomyces Cerevisiae*", *Journal of Hazardous Materials*, 136: 130-136.
37) Nadim, F.[*], A.C. Bagtzoglou, S.A. Baun[*], G.S. Warner, F.L. Ogden, R.A. Jacobson, and P. Parasiewicz, 2007, "Management of Adverse Impacts of a Public Water Supply Well-Field on the Aquatic Habitat of a Stratified Drift Stream in Eastern Connecticut", *Water Environment Research*, 79(1): 43-56.
38) Bagtzoglou, A.C., and P. Oates[*], 2007, "Chaotic Advection and Enhanced Groundwater Remediation", *ASCE Journal of Materials in Civil Engineering*, 19(1): 75-83.
39) Bagtzoglou, A.C., and A. Novikov[*], 2007, "Chaotic Behavior and Pollution Dispersion Characteristics in Engineered Tidal Embayments: A Numerical Investigation", *Journal of the American Water Resources Association*, 43(1): 207-219.
40) Bagtzoglou, A.C., and D. Cesano[*], 2007, "Dripping into Unsaturated Rock Underground Excavations – Literature Review and Geologic and Hydrogeologic Setting Description", *Environmental Geology*, 51(8): 1285-1294.
41) Bagtzoglou, A.C., and D. Cesano[*], 2007, "Dripping into Unsaturated Rock Underground Excavations – Model Testing at the Yucca Mountain Exploratory Studies Facility", *Environmental Geology*, 51(8): 1295-1306.
42) Hossain, F., J. Hill, and A.C. Bagtzoglou, 2007, "Geostatistically Based Zonal Management of Arsenic Contaminated Ground Water in Shallow Wells of Bangladesh", *Water Resources Management*, 21(7): 1245-1261.
43) Nadim, F.[*], A.C. Bagtzoglou, G.E. Hoag, F.L. Ogden, G.S. Warner, and D.M. Soballe, 2007, "Application of a Steady-State Nutrient Model and Inferences for Load Reduction Strategy in Two Public Water Supply Reservoirs in Eastern Connecticut", *Lake and Reservoir Management*, 23(3): 264 - 278.
44) Nadim, F.[*], G.E. Hoag, F.L. Ogden, G.S. Warner, and A.C. Bagtzoglou, 2007, "Water Quality Characteristics of Two Reservoir Lakes in Eastern Connecticut", *Lakes and Reservoirs: Research and Management*, 12(2): 187-202.
45) Harris, A., S. Rahman[*], F. Hossain, L. Yarborough, A.C. Bagtzoglou and G. Easson, 2007, "Satellite-Based Flood Modeling Using TRMM-Based Rainfall Products", *Sensors*, 7(12): 3416-3427.
46) Jacobson, R.A., G.S. Warner, P. Parasiewicz, A.C. Bagtzoglou, and F.L. Ogden, 2008, "An Interdisciplinary Study of the Effects of Groundwater Extraction on Freshwater Fishes", *International Journal of Ecological Economics & Statistics*, 12(F08): 7-25.
47) Bagtzoglou, A.C., and D. Kim[*], 2008, "Comparison of Microscopic and Macroscopic Modeling Approaches for Subsurface Contaminant Transport", *Water, Air, and Soil Pollution: Focus*, 8(3-4): 267-274.
48) §Nadim, F.[*], A.C. Bagtzoglou, and J. Iranmahboob, 2008, "Coastal Management in the Persian Gulf Region within the Framework of the ROPME Programme of Action", *Ocean and Coastal Management*, 51(7): 556-565.
49) Sorial, G.A. and A.C. Bagtzoglou, 2008[#], "Innovative Remediation Technologies for Pollution Abatement", *Water, Air, and Soil Pollution: Focus*, 8(3-4): 253-255.
50) Bagtzoglou, A.C., J.M. Niedzialek[*], S.A Baun[*], E.N. Anagnostou, and F.L. Ogden, 2009, "A Physically-Based Radar Calibration Method for Improved Rainfall Estimation: Application to the Fort-Collins Flash Flood of 1997", *Inverse Problems in Science and Engineering*, 17(1): 115-131.
51) Zhang, P., S.L. DeVries, A. Dathe, and A.C. Bagtzoglou, 2009, "Enhanced Mixing and Plume Containment in Porous Media under Time Dependent Oscillatory Flow", *Environmental Science and Technology*, 43(16): 6283-6288.
52) Hossain, F., J. Hill, and A.C. Bagtzoglou, 2009, "Zonal Management of Arsenic Contaminated Ground Water in Northwestern Bangladesh", *Journal of Environmental Management*, 90(12): 3721-3729.
53) Rahman, S.[*], A.C. Bagtzoglou, F. Hossain, L. Tang, L.D. Yarborough, and G. Easson, 2009, "Investigating the Effectiveness of Spatial Downscaling of Satellite Rainfall Data for Stream Flow Prediction in a Medium-Sized Basin", *Journal of Hydrometeorology*, 10(4): 1063-1079.
54) Bagtzoglou, A.C., and F. Hossain, 2009, "Radial Basis Function Neural Network for Hydrologic Inversion: An Appraisal with Classical and Spatio-Temporal Geostatistical Techniques in the Context of Site Characterization", *Stochastic Environmental Research and Risk Assessment*, 23(7): 933-945.
55) Bagtzoglou, A.C., R. Ababou, A. Nedungadi, and B. Sagar, 2009, "Fuzzy Rule-Based Hydrologic Models for Performance Assessment of Nuclear Waste Disposal Sites", *ASCE Journal of Hydrologic Engineering*, 14(11): 1240-1248.

§ 7th in the list of the *Top 25 Hottest Articles* in the field of Environmental Science during July-September 2008 per Science Direct

56) Nadim, F., A.C. Bagtzoglou, A. Afshar, J. Iranmahboob, M.R. Monazzam, and M. Yunesian, 2009, "Transport Management in Iran: Traffic Safety and Cleaner Cars", *Journal of Environmental Engineering and Management*, 19(6): 317-325.
57) Ababou, R., A.C. Bagtzoglou, and A. Mallet[*], 2010, "Anti-diffusion and Source Identification with the RAW Scheme: A Particle-Based Censored Random Walk", *Journal of Environmental Fluid Mechanics*, 10(1-2): 41-76.
58) Starn, J.J.[*], A.C. Bagtzoglou, and G. Robbins, 2010, "Using Atmospheric Tracers to Reduce Uncertainty in Simulating Recharge Areas", *Ground Water*, 48(6): 858-868.
59) Zhou, Z., Z. Peng, J.-H. Cui, Z. Shi and A.C. Bagtzoglou, 2011, "Scalable Localization with Mobility Prediction for Underwater Sensor Networks", *IEEE Transactions on Mobile Computing*, 10(3): 335-348.
60) Chrysochoou, M., C. Granda-Carvajal, K.T. Brown, G. Dahal, N.W. Garrick, K. Segerson and A.C. Bagtzoglou, 2011[#], "Reviving Brownfields: Connecticut Institutions, Obstacles, and Prospects", *Connecticut Economy*, 19(1): 14-16.
61) Malla, R.B., B. Shrestha[*], A.C. Bagtzoglou, J. Drasdis, and P. Johnson[*], 2011, "Hydropower Harvesting from a Small Scale Reciprocating System", *Renewable Energy*, 36(5): 1568-1577.
62) Xue, Z.[*], M. Gebremichael, M.L. Weldu, R. Ahmad, and A.C. Bagtzoglou, 2011, "Impact of Temperature and Precipitation on Propagation of Intestinal Schistosomiasis in an Irrigated Region in Ethiopia: Suitability of Satellite Datasets", *Tropical Medicine and International Health*, 16(9): 1104-1111.
63) Furrer Chau, J.[*], A.C. Bagtzoglou, and M. Willig, 2011, "The Effect of Soil Texture on Richness and Diversity of Bacterial Communities", *Environmental Forensics*, 12(4): 333-341.
64) **Chrysochoou M., G. Dahal, N. Garrick, K. Brown, K. Segerson, C. Granda-Carvajal, and A.C. Bagtzoglou, 2012, "A GIS and Indexing Scheme to Screen Brownfields for Area-Wide Redevelopment Planning," *Landscape and Urban Planning*, 105(3): 187-198.
65) Starn, J.J.[*], and A.C. Bagtzoglou, 2012, "Programs for Calibration-Based Monte Carlo Simulation of Recharge Areas", *Ground Water*, 50(3): 472-476.
66) Starn, J.J.[*], A.C. Bagtzoglou, and G. Robbins, 2012, "Methods for Simulating Solute Breakthrough Curves in Pumping Groundwater Wells", *Computers and Geosciences*, 48: 244-255.
67) Starn, J.J.[*], A.C. Bagtzoglou, and G. Robbins, 2012, "Uncertainty in Simulated Groundwater Quality Trends in Transient Flow", *Hydrogeology*, 21: 813–827.
68) Beyabanaki, A.[*], and A.C. Bagtzoglou, 2012, "Three-Dimensional Discontinuous Deformation (3D-DDA) Method for Particulate Media Applications", *Geomechanics and Geoengineering: An International Journal*, 7(4), 239-253.
69) Beyabanaki, A.[*], and A.C. Bagtzoglou, 2013, "Non-rigid Disk-based DDA with a New Contact Model", *Computers and Geotechnics*, 49: 25–35.
70) Beyabanaki, A.[*], and A.C. Bagtzoglou, 2014, "Accuracy of Dynamic Disk-based DDA with Respect to a Single Sliding Disk Cluster", *Geomechanics and Geoengineering: An International Journal*, 9(3): 231-240.
71) Liu, L., Z. Liu, H. Xie, B. Barrowes, and A.C. Bagtzoglou, 2014, "Numerical Simulation of UWB Impulse Radar Vital Sign Detection at an Earthquake Disaster Site", *Ad Hoc Networks*, 13(A): 34-41.
72) Bagtzoglou, A.C., E.D. Kenney[*], A. Hiscox, and D.R. Miller, 2014, "Optimization-based Atmospheric Plume Source Identification", *Environmental Forensics*, 15(2): 147-158.
73) Starn, J.J., C.T. Green, S.R. Hinkle, A.C. Bagtzoglou, and B. Stolp, 2014, "Simulating Water-Quality Trends in Public-Supply Wells in Transient Flow Systems", *Ground Water*, 52(S1): 53-62.
74) Payne, D.W.[*], A.C. Bagtzoglou**,** G.S. Warner**,** and L. Liu, 2014, "Alternatives to Reduce Pumping Effects in Glacial Stratified Drift Aquifers during Periods of Low Stream Flow", *Water Resources Management*, 28(7): 1973-1989.
75) Liu, B., A. Weinstein, M. Kolln, C. Garrett, L. Wang, A.C. Bagtzoglou, U. Karra, Y. Li, and B. Li, 2015, "Distributed Multi-Anodes Benthic Microbial Fuel Cell as Reliable Power Source for Subsea Sensors", *Journal of Power Sources*, 286: 210-216.
76) Beyabanaki, A.[*], and A.C. Bagtzoglou, 2015, "Sphere-Boundary Edge and Sphere-Boundary Corner Contacts Model in DDA for Simulating Particulate Media in 3D", *Geomechanics and Geoengineering: An International Journal*, 10(2): 83-94, 10.1080/17486025.2014.933892.
77) Starn, J.J., A.C. Bagtzoglou, and C.T. Green, 2015, "Effect of Numerical Model Complexity and Observations on Optimal Porosity Values", *Hydrogeology*, 23(6): 1121–1128, DOI 10.1007/s10040-015-1289-3.

** 10th most widely downloaded article in *Landscape & Urban Planning* during 1st half of 2012 per Elsevier

78) Azage, M.*, A. Kumie, A. Worku, and A.C. Bagtzoglou, 2015, "Childhood Diarrhea Exhibits Spatiotemporal Variation in Northwest Ethiopia: A SaTScan Spatial Statistical Analysis", *PLOS ONE*, 10(12): DOI 10.1371/ journal.pone.0144690.
79) Liu, B., I. Williams, L. Wang, A.C. Bagtzoglou, J. McCutcheon, and B. Li, 2016, "Towards High Power Output of Scaled-up Benthic Microbial Fuel Cells (BMFCs) using Multiple Electron Collectors", *Biosensor and Bioelectronics*, 79: 435–441.
80) Beyabanaki, A.*, A.C. Bagtzoglou, and E.N. Anagnostou, 2016, "Effects of Groundwater Table Position, Soil Strength Properties and Rainfall on Instability of Earthquake-Triggered Landslides", *Environmental Earth Sciences*, 75(4): 358, DOI 10.1007/s12665-016-5277-2.
81) Zaghi, A.E., S. Soroushian, A. Echevarria Heiser, M. Maragakis, and A.C. Bagtzoglou, 2016, "Development and Validation of a Numerical Model for Suspended Ceiling Systems with Acoustic Tiles", *Journal of Architectural Engineering*, 22(3): DOI 10.1061/(ASCE)AE.1943-5568.0000213.
82) Azage, M.*, A. Kumie, A. Worku, and A.C. Bagtzoglou, 2016, "Childhood Diarrhea in High and Low Hotspot Districts of Amhara Region, Northwest Ethiopia: A Multilevel Modeling", *Journal of Health, Population and Nutrition*, 35(13): DOI 10.1186/s41043-016-0052-2.
83) Beyabanaki, A.*, A.C. Bagtzoglou, and L. Liu, 2016, "Applying Disk-Based Discontinuous Deformation Analysis (DDA) to Simulate Donghekou Landslide Triggered by the Wenchuan Earthquake", *Geomechanics and Geoengineering: An International Journal*, 11(3):177-188, DOI 10.1080/17486025.2015.1082647.
84) Briggs, M.A., S.F. Buckley*, A.C. Bagtzoglou, D.D. Werkema, and J.W. Lane, 2016, "Actively Heated High-Resolution Fiber-Optic Distributed Temperature Sensing to Quantify Streambed Flow Dynamics in Zones of Strong Groundwater Upwelling", *Water Resources Research*, 52(7): 5179–5194, DOI 10.1002/2015WR018219.
85) Furrer, J.*, and A.C. Bagtzoglou, 2017, "Pore-scale Modeling of Water-Phase Fragmentation in Simulated Soils with Realistic Pore Geometry", *Granular Matter*, 19(2): 19, DOI 10.1007/s10035-017-0701-1.
86) Xu, Z., W. Zhou, Q. Dong, Y. Li, D. Cai, Y. Lei, A.C. Bagtzoglou, and B. Li, 2017, "Flat Flexible Thin milli-Electrode Array for Real-Time In Situ Water Quality Monitoring in Distribution Systems", *Environmental Science: Water Research & Technology*, 3(5): 865-874, DOI 10.1039/C7EW00103G.
87) Azage, M.*, A. Kumie, A. Worku, A.C. Bagtzoglou, and E.N. Anagnostou, 2017, "Effect of Climatic Variability on Childhood Diarrhea and its High Risk Periods in Northwestern Parts of Ethiopia", *PLOS ONE*, 12(10): DOI 10.1371/journal.pone.0186933.
88) Xu, Z., W. Zhou, H. Zhang, M. Shen, Y. Liu, D. Cai, Y. Li, Y. Lei, G. Wang, A.C. Bagtzoglou, and B. Li, 2018, "Flat Thin mm-sized Soil Moisture Sensor Fabricated by Gold Compact Discs Etching for Real-Time in situ Profiling", *Sensors and Actuators B: Chemical*, 255(Part 2): 1166-1172, DOI 10.1016/j.snb.2017.05.154.
89) Huang, Y., F.M. Dehkordy*, Y. Li, S. Emadi, A.C. Bagtzoglou, and B. Li, 2018, "Enhancing Anaerobic Fermentation Performance through Eccentrically Stirred Mixing: Experimental and Modeling Methodology", *Chemical Engineering Journal*, 334: 1383-1391, DOI 10.1016/j.cej.2017.11.088.
90) ††Yuan, H., W. Zhang, J. Zhu, and A.C. Bagtzoglou, 2018, "Resilience Assessment of Overhead Power Distribution System under Strong Winds for Hardening Prioritization", *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*, 4(4): DOI 10.1061/AJRUA6.0000988.
91) Dehkordy, F.M.*, M.A. Briggs, F.D. Day-Lewis, A.C. Bagtzoglou, 2018, "Simulation of Less-Mobile Porosity Dynamics in Contrasting Groundwater/Surface Water Interface Sediments", *Hydrological Processes*, 32(13): 2030-2043, DOI 10.1002/hyp.13134.
92) Dehkordy, F.M.*, M.A. Briggs, F.D. Day-Lewis, C. Scruggs, K. Singha, A. Krajnovich, T. Hampton, J. Zarnetske, A.C. Bagtzoglou, 2019, "Analysis of Multi-scale Preferential Flow Processes in an Urban Streambed", *Journal of Hydrology*, 573: 168-179, DOI 10.1016/j.jhydrol.2019.03.022.
93) Xu, Z., Y. Fan, T. Wang, Y. Huang, L. Xia, Q. Dong, Z. Dai, F.M. Dehkordy*, A.C. Bagtzoglou, J. McCutcheon, Y. Lei**,** and B. Li, 2019, "Towards High Resolution Monitoring of Water Flow Velocity Using Flat Flexible Thin mm-Sized Resistance-Typed Sensor Film (MRSF)", *Water Research X*, 4: 100028, DOI 10.1016/j.wroa.2019.100028.
94) Zhou, W., Z. Xu, H. Zhang, D. Ross, J. Dignan, G. Wang, A.C. Bagtzoglou, Y. Lei, and B. Li, 2019, "Towards Water-saving Irrigation Methodology: Field Test of Soil Moisture Profiling Using Flat Thin mm-sized Soil Moisture Sensors (MSMSs)", *Sensors and Actuators B: Chemical*, 298: 126857, DOI 10.1016/j.snb.2019.126857.

†† paper was selected to be featured in the Editor's Choice section

95) Xu, Z., F.M. Dehkordy[*], Y. Li, Y. Fan, T. Wang, Y. Huang, Q. Dong, Y. Lei, M.D. Stuber, A.C. Bagtzoglou, B. Li, 2019, "High-fidelity Profiling and Modeling of Wastewater Systems Using Milli-electrode Array (MEA): Toward Energy-Saving Monitoring and Operation", *Water Research*, 165: 114971, DOI 10.1016/j.watres.2019.114971.
96) Li, B., A.C. Bagtzoglou, F.M. Dehkordy[*], P. Gao, S. Zheng, W. Zhang, Y. Fan, Z. Dai, Z. Xu, 2019, "High Resolution Air Flow Velocity Monitoring Using Air Flow Resistance-Type Sensor Film (AFRSF)", *Sensors and Actuators A: Physical*, 297: 111562, DOI 10.1016/j.sna.2019.111562.
97) Aryal, R.[*], Z. Dokou, R.B. Malla, and A.C. Bagtzoglou, 2020, "Design Optimization of a Small Scale Hydropower Harvesting Device", *Structural and Multidisciplinary Optimization*, 61(3): 1303-1318, DOI 10.1007/s00158-019-02416-2.
98) Beyabanaki, A.[*], and A.C. Bagtzoglou, 2020, "Modified Contact Constraints in Sphere-Based 3-D DDA", *American Journal of Engineering Research*, 9(4): 171-180.
99) Khadim, F.K.[*], Z. Dokou, R. Lazin, S. Moges, A.C. Bagtzoglou, and E.N. Anagnostou, 2020, "Groundwater Modeling in Data Scarce Aquifers: The case of Gilgel Abay, Upper Blue Nile, Ethiopia", *Journal of Hydrology*, 590: DOI 10.1016/j.jhydrol.2020.125214.
100) Khadim, F.K.[*], Z. Dokou, A.C. Bagtzoglou, M. Yang, G.A. Lijalem, and E.N. Anagnostou, 2020, "A Calibrated Groundwater Model (Modflow-NWT) Data Repository in the Koga Irrigation Project Area, Ethiopia", *Zenodo*, https://doi.org/10.5281/zenodo.3965204.
101) Ma, X., W. Zhang, A.C. Bagtzoglou, and J. Zhu, 2021, "Local System Modeling Method for Resilience Assessment of Overhead Power Distribution System under Strong Winds", *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*, 7(1): DOI 10.1061/AJRUA6.0001103.
102) Hughes, W., W. Zhang, A.C. Bagtzoglou, D. Wanik, O. Pensado, H. Yuan, J. Zhang[*], 2021, "Damage Modeling Framework for Resilience Hardening Strategy for Overhead Power Distribution Systems", *Reliability Engineering and System Safety*, 207: DOI 10.1016/j.ress.2020.107367.
103) Khadim, F.K.[*], Z. Dokou, A.C. Bagtzoglou, M. Yang, G.A Lijalem, and E.N. Anagnostou, 2021, "A Numerical Framework to Advance Agricultural Water Management Under Hydrological Stress Conditions in a Data Scarce Environment", *Agricultural Water Management*, 254: DOI 10.1016/j.agwat.2021.106947.
104) Wang, T., C. Wang, Z. Xu, C. Cui, X. Wang, Z. Demitrack, Z. Dai, A.C. Bagtzoglou, M.D. Stuber, and B. Li, 2021, "Precise Control of Water and Wastewater Treatment Systems with Non-ideal Heterogeneous Mixing Models and High-Fidelity Sensing", *Chemical Engineering Journal* (accepted).
105) Lu, Q., W. Zhang, and A.C. Bagtzoglou, 2021, "Physics-Based Reliability Assessment of Community-Based Power Distribution System using Synthetic Hurricanes", *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering* (accepted).
106) Zhang, J.[*], W. Zhang, Q. Lu; J. Zhu, and A.C. Bagtzoglou, 2021, "A Fragility-Weighted Topological Network for Resilient Assessment of Power Distribution System Subjected to Hurricane Winds", *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering* (conditionally accepted).
107) Yang, M., G. Wang, S. Wu, P. Block, R. Lazin, S. Alexander, J. Lala, M. Rezaul Haider, Z. Dokou, E. Amdework Atsbeha, M Koukoula, X. Shen, M. Peña, E. Nikolopoulos, A.C. Bagtzoglou, and E.N. Anagnostou, 2021, "Seasonal Prediction of Crop Yields in Ethiopia Using an Analog Approach", *Agricultural and Forest Meteorology* (in review).
108) Lu, Q., W. Zhang, W. Hughes, and A.C. Bagtzoglou, 2021, "Bayesian Decision Network-Based Optimal Selection of Hardening Strategies for Power Distribution Systems", *Reliability Engineering and System Safety* (in review).
109) Zhang, J.[*], W. Zhang, W. Hughes, and A.C. Bagtzoglou, 2021, "A Fragility-Based Hierarchical Spectral Clustering Method for Power Distribution Systems", *ASCE-ASME Journal of Infrastructure Systems* (in review).
110) Dehkordy, F.M.[*], A.C. Bagtzoglou, F.D. Day-Lewis, Z. Dokou, and M.A. Briggs, 2021, "Transient Storage Dynamics of Hyporheic Streambed Stagnation Zones", *Hydrogeology* (in preparation).

A.1.3 PEER-REVIEWED CONFERENCE PROCEEDINGS

(A [p] after the year of a paper published in proceedings indicates that presentation was given by Bagtzoglou)
(A * after a co-author's name indicates student or post-doc working under Bagtzoglou's direct supervision)

1) Bagtzoglou, A.C., and A. Pandit, 1987[p], "Stratification Effects on Solute Transport in Porous Media" (in Greek), in *Proc. 3rd National Conference of EYE*, Thessaloniki, Greece, p.733-742.

2) Bagtzoglou, A.C., 1989[p], "Using Particle Tracking Methods for Simulation of Non-Reactive Solute Transport in Porous Media", in *Proc. 2nd National Conference on Engineering Mechanics*, Athens, Greece.
3) Bagtzoglou, A.C., G.W. Wittmeyer, R. Ababou, and B. Sagar, 1992[p], "Application of a Massively Parallel Computer to Flow in Variably Saturated Heterogeneous Porous Media", in *Numerical Methods in Water Resources*, (T.F. Russell *et al*., eds.), Computational Mechanics Publications & Elsevier Applied Science, p.695-703.
4) Bagtzoglou, A.C., R. Ababou, B. Sagar, and M.R. Islam[*], 1993[p], "Effects of Some Common Geological Features on 2D Variably Saturated Flow", in *Scientific Basis for Nuclear Waste Management XVI*, Vol. 294, p.929-936.
5) Nedungadi, A., A.C. Bagtzoglou, and B. Sagar, 1994, "A Fuzzy Methodology to Solve the Groundwater Flow Problem in the Presence of Uncertain Hydrogeological Data", in *Applications of Artificial Intelligence in Engineering IX*, (G. Rzevski *et al*., eds.), Computational Mechanics Publications, Southampton, United Kingdom, p.369-375.
6) Bagtzoglou, A.C., and V. Kapoor, 1994[p], "Unsaturated Flow and Advection-Dispersion in Three-Dimensionally Heterogeneous Geologic Media", in *Computational Methods in Water Resources X*, (A. Peters *et al*., eds.), Kluwer Academic Publishers, Dordrecht, Netherlands, p.415-422.
7) Bagtzoglou, A.C., and R.G. Baca, 1994[p], "Probabilistic Calculations of Groundwater Travel Time in Heterogeneous 3D Porous Media", in *Scientific Basis for Nuclear Waste Management XVII*, Vol. 333, p.849-854.
8) Bagtzoglou, A.C., A. Nedungadi, and B. Sagar, 1996[p], "A Fuzzy Rule-Based Model for Simulation of Flow in Heterogeneous Aquifers", in *Computational Methods in Water Resources XI*, (A. Aldama *et al*., eds.), Hidropromociones, A.C., Mexico, p.628-637.
9) Turner, D.R., A.C. Bagtzoglou, T.L. Tolley[*], and S.A. Stothoff, 1997, "Perched Water Zones in Arid Environments; Geochemical Constraints on Hydrological Modeling for High-Level Radioactive Waste Disposal", in Proceedings of *4th International Symposium on Environmental Geochemistry*, (R. Wanty *et al*., eds.), U.S. Geological Survey, Reston, Virginia, p.91-92.
10) Bagtzoglou, A.C., and R. Ababou, 1997[p], "Conditional Simulation and Estimation of Gauss-Markov Random Fields Using the Bayesian Nearest Neighbor Method", in *Quantitative Geology and Geostatistics* (A. Soares *et al*., eds.), Kluwer Academic Publishers, Dordrecht, Netherlands, p.477-491.
11) Bagtzoglou, A.C., G.I. Ofoegbu, and R.T. Green, 1998[p], "Thermally-Driven Moisture Flow Near the Vicinity of Perched Aquifers in Unsaturated Geologic Media", in *Computational Methods in Contamination and Remediation of Water Resources*, (V. Burganos *et al*., eds.), Computational Mechanics Publications, Southampton, United Kingdom, p.321-328.
12) Bagtzoglou, A.C., T.L. Tolley[*], S.A. Stothoff, and D.R. Turner, 2000[p], "Perched Water Aquifers in Arid Environments and Inferences for Recharge Rates", in *Tracers and Modelling in Hydrogeology*, International Association of Hydrological Sciences Publication No. 262, p.401-406.
13) Cesano, D.[*], A.C. Bagtzoglou, and B. Olofsson, 2000, "Quantifying the Heterogeneity of Fracture Systems: An Index for Fracture Flow Network Representations at Different Scales", in *Groundwater: Past Achievements and Future Challenges* (O. Sililo *et al*., eds.), International Association of Hydrogeologists, Balkema Publishers, Rotterdam, Netherlands, p.115-120.
14) Atmadja, J.[*], and A.C. Bagtzoglou, 2000, "Groundwater Pollution Source Identification Using the Backward Beam Equation Method", in *Computational Methods for Subsurface Flow and Transport*, (L. Bentley *et al*., eds.), Balkema Publishers, Rotterdam, Netherlands, p.397-404.
15) Hill, M.[*], A.C. Bagtzoglou, R.T. Green, P. Angell, and B. Juza[*], 2001, "Laboratory and Numerical Analyses of Bio-Barrier Development", in *Water Quality Monitoring and Modeling* (J.J. Warwick, ed.), American Water Resources Association, Middleburg, Virginia, p.247-252.
16) Bagtzoglou, A.C., and F. Habel[*], 2002, "Pore Water Flow and Transport Across the Porous Bed-Stream Water Interface", International Association of Hydrogeologists, in *CD Proceedings of International Groundwater Conference on Balancing the Groundwater Budget*.
17) Cornacchiulo, D.[*], and A.C. Bagtzoglou, 2002, "The Marching-Jury Backward Plate Equation for Contaminant Plume Spatial Distribution Recovery in Two-Dimensional Heterogeneous Media: Computational Issues", in *Computational Methods for Subsurface Flow and Transport*, M. Hassanizadeh et al. (eds.), Elsevier Publishers, Netherlands, p. 461-468.
18) Baun, S.A.[*], and A.C. Bagtzoglou, 2004[p], "A Computationally Attractive Approach for Near Real-Time Contamination Source Identification", in *Computational Methods in Water Resources XV* (Vol. II), C.T. Miller et al. (eds.), Elsevier Science Publishers, Netherlands, p. 1263-1271.

19) Bagtzoglou, A.C., and S.A. Baun[*], 2005[p], "An Efficient Inverse Method for Real-Time Atmospheric Contamination Source Identification", in *Inverse Problems, Design and Optimization*, M.J. Colaço, H.R.B. Orlande and G.S. Dulikravich (eds.), E-Papers Publishing House Ltd., Rio de Janeiro, Volume II, p. 159-166.
20) Hossain, F., J. Hill, and A.C. Bagtzoglou, 2005, "Zonal Management of Arsenic Contaminated Ground Water in Northwestern Bangladesh", in *Proceedings of International Conference on Energy, Environment and Disasters* (H.I. Inyang *et al.*, eds.), Session C-7 Regional Environmental Impact Assessment, Paper No - C.7.492, p. 79.
21) Bagtzoglou, A.C., and R. Ababou, 2006[p], "Anti-Diffusion Modeling Using a Non-Local Censored Random Walk Scheme", in *Computational Methods in Water Resources XVI*, Binning et al. (eds.), CD Proceedings, Copenhagen, Denmark, paper #259, pp. 8.
22) Bagtzoglou, A.C., E.N. Anagnostou, J.M. Niedzialek[*], and F.L. Ogden, 2007[p], "Enhanced Radar Calibration Using Physically Based Image Restoration Methods", in *Inverse Problems, Design and Optimization*, M.J. Colaço, H.R.B. Orlande and G.S. Dulikravich (eds.), Vol. II: 714-721.
23) Bagtzoglou, A.C., J.M. Niedzialek[*], and F.L. Ogden, 2007[p], "Hydrologic Model Calibration with Particle Tracking as a Groundwater Age Proxy", in *Inverse Problems, Design and Optimization*, M.J. Colaço, H.R.B. Orlande and G.S. Dulikravich (eds.), Vol. II: 707-713.
24) Zhou, Z., J.-H. Cui, and A.C. Bagtzoglou, 2008, "Scalable Localization with Mobility Prediction for Underwater Sensor Networks", in *Proceedings of IEEE INFOCOM'08*, CD Proceedings, Phoenix, Arizona, pp. 21.
25) Nadim, F., A.C. Bagtzoglou, S. Govindan, and J. Cook, 2009, "Urban Sewage and Stormwater Management in the United States", in *Proceedings of International Conference on Capacity Building in Urban Water Management under Water Scarcity Conditions*, CD Proceedings, Muscat, Sultanate of Oman, pp. 14.
26) Liu, L., Z. Liu, B. Barrowes, H. Xie, and A.C. Bagtzoglou, 2011, "UWB Impulse Radar Detection of Vital Signals of Living Persons Buried Under Earthquake Debris", *Proceedings of the 1st International Conference on Wireless Technologies for Humanitarian Relief (ACWR2011)*, p.310-313.
27) Dokou, Z., N. Reljin, M. Kheirabadi[*], A.C. Bagtzoglou, and E.N. Anagnostou, 2018, "Lake Level Estimation using Machine Learning and Physically-based Approaches in Lake Tana, Ethiopia", *Proceedings of the 14th Symposium on Neural Networks and Applications (NEUREL).*
28) Chrysochoou, M., A.E. Zaghi, C.M. Syharat, S. Motaref, S. Jang, A.C. Bagtzoglou, and C.A. Wakeman, 2021, "Redesigning Engineering Education for Neurodiversity: New Standards for Inclusive Courses", *2021 ASEE Virtual Annual Conference*, Content Access, Virtual Conference. https://peer.asee.org/37647.

A.1.4 PEER-REVIEWED TECHNICAL REPORTS & THESES

(A * after a co-author's name indicates student or post-doc working under Bagtzoglou's direct supervision)

1) Bagtzoglou, A.C., 1984, *Numerical Modeling of an Aquifer's Behavior as a Thermal Energy Storage System* (in Greek), Diploma Thesis, Division of Hydraulics & Environmental Engineering, Department of Civil Engineering, Aristotle University of Thessaloniki, Greece, pp.97.
2) Bagtzoglou, A.C., 1987, *Scale and Stratification Dependence of Dispersivity Coefficients: An Experimental Study*, M.S. Thesis, Department of Civil Engineering, Florida Institute of Technology, pp.100.
3) Bagtzoglou, A.C., 1990, *Particle-Grid Methods with Application to Reacting Flows and Reliable Solute Source Identification*, Ph.D. Dissertation, Department of Civil Engineering, University of California, Irvine, pp.246.
4) Bagtzoglou, A.C., 1991, "Large Scale Transport in Randomly Heterogeneous Fields", *Report WREE 91-3*, Department of Civil Engineering, University of California, Irvine, pp.40.
5) Hill, M.[*], A.C. Bagtzoglou, R.T. Green, and P. Angell, 1999, *Microbial Clogging of Pores and Fractures in Tuff: Effects on Repository Hydrological Modeling*, Final Technical Report, Research Project 20-9998, Advisory Committee for Research, San Antonio, Texas: Southwest Research Institute, pp.64.
6) Warner, G.S., F.L. Ogden, A.C. Bagtzoglou, and P. Parasiewicz, 2006, *Long-Term Analysis of the University of Connecticut's Fenton River Water Supply Wells on the Habitat of the Fenton River*, University of Connecticut, Final Project Report, pp.211 (peer-reviewed by USGS, CT DEP, DEC & OPM, Naubesatuck Watershed Council, R. Thorson, P. Ritsick).
7) Kram, M., G. Robbins, J. Chau[*], A.C. Bagtzoglou, D. Eng and N. Jones, 2008, "Detailed Hydraulic Assessment Using a High-Resolution Piezocone Coupled to the GEOVIS", *Technical Report TR-2291-ENV*, Engineering Service Center, Naval Facilities Engineering Command, pp. 360 (peer-reviewed by DOD & EPA).

A.2 NON-REFEREED PUBLICATIONS

A.2.1 CAMERA-READY, FULL PAPER IN CONFERENCE PROCEEDINGS (WITH PEER-REVIEWED ABSTRACT)

(A [p] after the year of a paper published in proceedings indicates that presentation was given by Bagtzoglou)
(A * after a co-author's name indicates student or post-doc working under Bagtzoglou's direct supervision)

1) Bagtzoglou, A.C., G. Apostolides, D. Tolikas, and K. Katsifarakis, 1985, "Study of the Effect of Thermal Conductivity on the Exploitation of a Low Enthalpy Aquifer as a Thermal Energy Storage System" (in Greek), in *Proc. 2nd National Conference on Low Enthalpy Energy Resources*, Thessaloniki, Greece, Vol. 1, p.373-380.
2) Bagtzoglou, A.C., and J. Halkias, 1987[p], "Thermal Energy Storage in Shallow Aquifers: Potential Utilization in Greece and Preliminary Feasibility Study" (in Greek), in *Proc. Technical Chamber of Greece Symposium on Low Enthalpy Energy Resources*, Volos, Greece.
3) Bagtzoglou, A.C., 1988[p], "Numerical Simulation of Heat Transfer from a Flat Solar Collector to an Impinging Water Jet" (in Greek), in *Proc. 3rd National Conference on Low Enthalpy Energy Resources*, Thessaloniki, Greece, Vol. 1, p.307-315.
4) Bagtzoglou, A.C., and D.E. Dougherty, 1990[p], "Numerical Solution of Fisher's Equation Using Particle Tracking Methods", in *Proc. 10th Annual "Hydrology Days"*, (H.J. Morel-Seytoux, ed.), Hydrology Days Publications, Fort Collins, Colorado, p.28-38.
5) Khan, M.N., A.C. Bagtzoglou, and G.L. Guymon, 1991, "San Mateo Basin Conjunctive Use Study", in *Proc. 11th Annual "Hydrology Days"*, (H.J. Morel-Seytoux, ed.), Hydrology Days Publications, Fort Collins, Colorado, p.35-46.
6) Bagtzoglou, A.C., B. Sagar, G.W. Wittmeyer, and R. Ababou, 1992[p], "A Step Towards Validating Probabilistic Performance Assessment Models", in *Proc. Topical Session on Probabilistic Validation of Models, NEA/PSAG/DOC(92)4*, OECD Nuclear Energy Agency, Paris, France, p.49-72.
7) Bagtzoglou, A.C., D.E. Dougherty, and A.F.B. Tompson, 1992[p], "Are Particle Methods Only Suited for Modeling Advective Transport? Some Counter-Examples", in *Proc. 5th International Conference on Solving Ground Water Problems with Models*, NGWA, Dallas, Texas, p.31-44.
8) Karakadas, C.S., and A.C. Bagtzoglou, 1992, "Application of Ground Penetrating Radar Technology to the Reliable Identification of Groundwater Pollution Sources", in *Proc. 1st International Conference on the Protection & Restoration of the Environment in the 1990s*, Thessaloniki, Greece.
9) Bagtzoglou, A.C., A. Nedungadi, S. Seida, and B. Sagar, 1993[p], "Application of a Neuro-Fuzzy Methodology for the Estimation of Hydraulic Conductivity Spatial Distributions and Simulation of Groundwater Flow under Conditions of Limited and Imprecise Parameter Availability", in *Proc. Topical Session on Treatment of Spatial Variability in Probabilistic Safety Assessments, NEA/PSAG/DOC(93)3*, OECD Nuclear Energy Agency, Paris, France, p.135-157.
10) Bagtzoglou, A.C., M.R. Islam[*], and M. Muller, 1994[p], "Stochastic Analysis of Unsaturated Flow and Transport with the SUFLAT Executive Numerical Code", in *Proceedings of Fifth International Conference on High-Level Radioactive Waste Management*, American Nuclear Society & American Society of Civil Engineers, p.2669-2677.
11) Mohanty, S.[*], and A.C. Bagtzoglou, 1994, "Effective Unsaturated Hydraulic Property Determination with the Renormalization Group Approach: Methodology", in *Proceedings of Fifth International Conference on High-Level Radioactive Waste Management*, American Nuclear Society & American Society of Civil Engineers, p.2660-2668.
12) Bagtzoglou, A.C., G.L. Stirewalt, D.B. Henderson, and S.B. Seida, 1995[p], "Evaluation of Uncertainty in Geological Framework Models at Yucca Mountain, Nevada", in *Proceedings of Sixth International Conference on High-Level Radioactive Waste Management*, American Nuclear Society & American Society of Civil Engineers, p.119-122.
13) Turner, D.R., A.C. Bagtzoglou, and J. Foegelle[*], 1995, "Characterization of the Potential for Perched Water Development at Yucca Mountain, Nevada", in *Proceedings of Sixth International Conference on High-Level Radioactive Waste Management*, American Nuclear Society & American Society of Civil Engineers, p.72-74.
14) Stothoff, S.A., A.C. Bagtzoglou, and H.M. Castellaw[*], 1995, "Estimation of Spatial Distribution of Recharge Factors at Yucca Mountain, Nevada", in *Proceedings of Sixth International Conference on High-Level Radioactive Waste Management*, American Nuclear Society & American Society of Civil Engineers, p.69-71.
15) Stothoff, S.A., A.C. Bagtzoglou, and H.M. Castellaw[*], 1996, "Estimation of Spatial Distribution of Recharge Factors at Yucca Mountain, NV", in *Proceedings of the International Conference on Application of Geographic Information*

Systems in Hydrology and Water Resources Management, International Association of Hydrological Sciences, Vienna, Austria, IAHS Publ. No. 235.

16) Bagtzoglou, A.C., A. Novikov[*], B. Gallagher[*], and R. Chevray, 2001[p], "Chaotic Advection and its Role in the Water Quality of the Lower Hudson River Estuary", in *Industrial and Hazardous Wastes* (N. Assaf-Anid, ed.), Proceedings of 33rd Mid-Atlantic Industrial and Hazardous Waste Conference, Technomic Publishing Co., Lancaster, p.165-167.
17) Bagtzoglou, A.C., 2002[p], "Overview and Application of Inverse Groundwater Models for Contaminant Source Identification," in *CD Proceedings of International Society of Environmental Forensics Workshop (Environmental Forensics: Advanced Techniques)*, pp. 21.
18) Kim, D.[*], and A.C. Bagtzoglou, 2002, "Contaminant Transport in the Subsurface at the Pore-Micropore Interface", Paper #427, in *CD Proceedings of 15th Engineering Mechanics Division ASCE Conference* (Ed. A.W. Smyth).
19) Cornacchiulo, D.[*], A.C. Bagtzoglou, and J. Atmadja[*], 2002, "Hydrologic Inversion Using Marching-Jury Backward Beam Equation and Quasi-Reversibility Methods", Paper #426, in *CD Proceedings of 15th Engineering Mechanics Division ASCE Conference* (Ed. A.W. Smyth).
20) Franco, G.[*], and A.C. Bagtzoglou, 2002, "An Elastic Contact Mechanics Fracture Flow Model", Paper #425, in *CD Proceedings of 15th Engineering Mechanics Division ASCE Conference* (Ed. A.W. Smyth).
21) Kim, D.[*], and A.C. Bagtzoglou, 2004, "Investigating Subsurface Contaminant Interactions at the Pore-Micropore Interface," in *CD Proceedings of 36th Mid-Atlantic Industrial & Hazardous Waste Conference*, p.103-111.
22) Kenney, E.[*], S.A. Baun[*], and A.C. Bagtzoglou, 2004, "Reconstruction of Contaminant Plume Time History through Parameter Optimization," in *CD Proceedings of 36th Mid-Atlantic Industrial & Hazardous Waste Conference*, p.95-102.
23) Bagtzoglou, A.C., S.A. Baun[*], and E. Kenney[*], 2004[p], "Reverse Modeling for Identifying Contaminant Sources: Overview of Methods that Work," in *CD Proceedings of International Society of Environmental Forensics Workshop (Environmental Forensics: Theory, Applications, and Case Studies)*, pp. 32.
24) Nadim, F.[*], A.C. Bagtzoglou, and J.J. Starn[*], 2004, "Ground Water Flow Simulation of a Glacial Aquifer and its Implication for the Management of the University of Connecticut Water Supply System During Drought Periods", *US EPA/NGWA Fractured Rock Conference*, p.863-866.
25) Hossain, F.[*], E.N. Anagnostou, and A.C. Bagtzoglou, 2004[p], "Efficient Uncertainty Assessment for Satellite Rainfall Observations with Application to Flood Prediction", *9th ASCE Biennial International Conference on Engineering, Construction and Operations in Challenging Environments*, p.276-283.
26) Baun, S.A.[*], A.C. Bagtzoglou, M.N. Anagnostou, R.G. Knox, and E.N. Anagnostou, 2004[p], "Progress Towards Developing a Radar Calibration Method for Improved Rainfall Estimation", *9th ASCE Biennial International Conference on Engineering, Construction and Operations in Challenging Environments*, p.290-298.
27) Ababou, R., and A.C. Bagtzoglou, 2006[p], "Source Identification with the 'RAW' Scheme: Reverse Anti-Diffusion Walk," in *Proceedings of IAHR Symposium on Groundwater Hydraulics in Complex Environments*, p.157-158.
28) Bagtzoglou, A.C., A. Mallet[*], R. Ababou, D.F. Cornacchiulo, and B. Sharma[*], 2007[p], "Backwards-in-Time Diffusion Modeling for Contaminant Event Reconstruction", in *CD Proceedings of 37th MAIHWC*, University of Cincinnati, p.77-85.
29) Cornacchiulo, D.F.[*], and A.C. Bagtzoglou, 2007[p], "Multi-dimensional Marching Jury Backwards Beam Equation Method with Uncertainty in Transport Parameters", in *CD Proceedings of 37th MAIHWC*, University of Cincinnati, p.94-101.
30) Kim, D.[*], and A.C. Bagtzoglou, 2007[p], "Comparison Study of Microscopic and Macroscopic Approaches in Subsurface Contaminant Transport", in *CD Proceedings of 37th MAIHWC*, University of Cincinnati, p.353-360.
31) Malla, R., B. Shrestha[*], J. Drasdis, and A.C. Bagtzoglou, 2010, "Structural Analysis of Reciprocating Small Scale Hydropower System for Lift Force Estimation", *12th ASCE International Conference on Engineering, Science, Construction and Operations in Challenging Environments*, p.2228-2238.
32) Xu, Z., W. Zhou, Q. Dong, Y. Li, D. Cai, Y. Lei, A.C. Bagtzoglou, and B. Li, 2017, "Flat Flexible Thin Milli-electrode Array for Real-time in situ Water Quality Monitoring in Distribution Systems", Proceedings of the Water Environment Federation, WEFTEC 2017: Session 601-620, pp. 5598-5617, DOI 10.2175/193864717822157432.
33) Yuan, H., W. Zhang, J. Zhu, and A.C. Bagtzoglou, 2017, "Structural Resiliency Assessment of a Single-circuit Overhead Distribution System under Extreme Wind Hazard," *13th Americas Conference on Wind Engineering*, Gainesville, Florida, USA, May 21 – 24.

A.2.2 TECHNICAL REPORTS

(A * after a co-author's name indicates student or post-doc working under Bagtzoglou's direct supervision)

1) Guymon, G.L., and A.C. Bagtzoglou, 1989, *Hydrologic Model of Santa Margarita River*, Technical Report WREE 89-1, Department of Civil Engineering, University of California, Irvine, pp.106.
2) Bagtzoglou, A.C., M.N. Khan, and G.L. Guymon, 1991, *SAILPA: A Simulation Model for Evaluation of Stream-Aquifer Interactions by a Lumped Parameter Approach*, Report WREE 91-2, Department of Civil Engineering, University of California, Irvine, pp.41.
3) Bagtzoglou, A.C., and G.L. Guymon, 1991, *Groundwater In-Stream Recharge with Reclaimed Wastewater*, Report WREE 91-1, Department of Civil Engineering, University of California, Irvine, pp.45.
4) Bagtzoglou, A.C., and G.W. Wittmeyer, 1992, *Application of a Massively Parallel Computer to the Study of Flow and Transport Phenomena in Randomly Heterogeneous Porous Media*, Technical Report LALP-92-69, Los Alamos National Laboratory, New Mexico, p.78-79.
5) Bagtzoglou, A.C., R. Ababou, and B. Sagar, 1992, *Effects of Layering, Dipping Angle, and Faulting on Two-Dimensional Variably Saturated Flow*, Report CNWRA 92-004, Center for Nuclear Waste Regulatory Analyses, Southwest Research Institute, San Antonio, Texas, pp.64.
6) Freitas, C.J., D.C. Boice, A.C. Bagtzoglou, and B.J. Zook, 1993, *High Performance Computing on Parallel Architectures: A Review of the State-of-the-Art*, Advanced Computational Engineering and Science Project Report, Research Initiative Program in Advanced Modeling and Simulation, SwRI Project 15-9759, pp.49.
7) Bagtzoglou, A.C., A. Nedungadi, S.B. Seida, and B. Sagar, 1995, *Development of a Neuro-Fuzzy Methodology for Simulation of Flow in Heterogeneous Porous Media with Limited and/or Imprecise Parameters*, Final Technical Report, Research Project 20-9740, Advisory Committee for Research, San Antonio, Texas: Southwest Research Institute, pp.94.
8) Bagtzoglou, A.C., and B. Juza*, 1998, *Microbial Plugging of Pores and Fractures in Tuff: Effects on Repository Modeling: Experimental Data Analysis, Model Formulation, and Modeling Results*, Technical Report, Department of Civil Engineering, Columbia University, pp.26 (excluding appendices).
9) Cesano, D.*, and A.C. Bagtzoglou, 1999, *Dripping into Underground Excavations Situated in Unsaturated Rock: Past Experience and Future Needs for Improving Hydrogeological Assessments of the Potential Yucca Mountain Repository*, Technical Report, Research Project 999117P/20-1402-661 under contract NRC-02-97-009 with the Center for Nuclear Waste Regulatory Analyses, pp.71.
10) Yang, Y.*, D. Cesano*, and A.C. Bagtzoglou, 1999, *Simulating Dripping in a Rough, Multi-Segmented Fracture Set – Progress Report: Model Development and Sensitivity Analysis*, Technical Report, Research Project 999117P/20-1402-661 under contract NRC-02-97-009 with the Center for Nuclear Waste Regulatory Analyses, pp.39.
11) Cesano, D.*, and A.C. Bagtzoglou, 2000, *Simulating Dripping into a Rough, Multi-Segmented Fracture Set – Final Report: Model Development, Sensitivity Analysis, and Testing*, Technical Report, Research Project X99219N/20-1402 under contract NRC-02-97-009 with the Center for Nuclear Waste Regulatory Analyses, pp.119.
12) Robbins, G.A., J. Chau*, and A.C. Bagtzoglou, 2006, *Rhodamine Tracer Test Simulation for Port Hueneme Test Site*, Technical Report, Project N47408-04-C-7514, pp.18.
13) Chau, J.*, and A.C. Bagtzoglou, 2007, *Report on Development and Testing of Groundwater Flow and Tracer Transport Models*, Technical Report, Project N47408-04-C-7514, pp.16.
14) Zhou*, Z., J.-H. Cui, and A.C. Bagtzoglou, 2008, *Scalable Localization with Mobility Prediction for Underwater Sensor Networks*, CSE Technical Report: UbiNet-TR07-01, University of Connecticut, pp. 21.
15) Chrysochoou, M., D. Basu, and A.C. Bagtzoglou, 2010, *Strengthening and Modeling of Earth Embankments under High Loads*, Technical Report DHS-09-01, Project Contract 2008-ST-061-TS0002-01, University of Connecticut, pp. 43.
16) Chrysochoou, M., N. Garrick, K. Segerson, A.C. Bagtzoglou, G. Dahal, K. Brown, and C. Granda-Carvajal, 2011, *Reversing Urban Sprawl: A Reclaimability Index Approach for Reviving Downtown Brownfields*, Technical Report CTLS 08-03, University of Connecticut, pp. 119.
17) Payne*, D.W., A.C. Bagtzoglou, Warner, G.S., and L. Liu, 2013, *Management Alternatives to Reduce Pumping Effects in the Fenton River during Low Stream Flow*, University of Connecticut, Final Project Report, CT Institute of Water Resources, pp.67.

B. LIST OF TECHNICAL PRESENTATIONS

(A ^{p} after the year of a paper published in proceedings – listed in Section A – indicates that presentation was given by Bagtzoglou; These presentations – listed in Section A – are not included in the lists of presentations below)

B.1 INVITED PRESENTATIONS

(A * after a co-author's name indicates student or post-doc working under Bagtzoglou's direct supervision)

1) Bagtzoglou, A.C., 1991, "Reliable Groundwater Pollution Source Identification: Is it Really Feasible?" *Center for Nuclear Waste Regulatory Analyses*, Southwest Research Institute, San Antonio, TX, August 14.
2) Bagtzoglou, A.C., 1991, "Particle Methods and their Application to Reliable Groundwater Pollution Source Identification", *Environmental Sciences Division*, Oak Ridge National Laboratory, Oak Ridge, TN, August 27.
3) Bagtzoglou, A.C., 1992, "A Step Towards Validating Probabilistic Performance Assessment Models", *13th Radioactive Waste Management Committee Meeting, Organization for the Economic Coordination and Development, Nuclear Energy Agency, Probabilistic Systems Assessment Group*, Headquarters of OECD, Paris, France, June 3.
4) Bagtzoglou, A.C. and S. Mohanty*, 1993, "Theoretical Prediction and Numerical Determination of the Effective Hydraulic Conductivity of Unsaturated Porous Media", *Workshop VI: Flow and Transport through Unsaturated, Fractured Rocks*, University of Arizona, Tucson, AZ, January 28.
5) Bagtzoglou, A.C. and S. Seida, 1993, "Application of an Artificial Neural Network Based Interpolator to the Estimation of Spatial Distributions of Hydraulic Conductivity, Under Conditions of Limited and/or Imprecise Parameter Availability", *14th Radioactive Waste Management Committee Meeting, Organization for the Economic Coordination and Development (OECD), Nuclear Energy Agency, Probabilistic Systems Assessment Group*, Santa Fe, NM, January 22.
6) Bagtzoglou, A.C., 1994, "Stochastic Analysis of Flow and Transport Processes at the Subregional Scale", *Department of Energy-Nuclear Regulatory Commission Technical Exchange on Ground-Water Flow and Travel Time*, Denver, CO, December 1.
7) Bagtzoglou, A.C., 1994, "Stochastic Analysis of Flow and Transport in Unsaturated, Fractured Media: Project Completion Report", presented to NRC Management and Technical Staff, Washington, DC, May 10.
8) Bagtzoglou, A.C., S.P. Neuman, T.J. Nicholson, R.B. Codell, G.W. Wittmeyer, and B. Sagar, 1995, "Strategies for Assessing Heterogeneities Related to the Prediction of Radionuclide Transport in Geologic Media", U.S. NRC Staff and Contractor Team Contribution, *Organization for the Economic Coordination and Development (OECD), Nuclear Energy Agency*, GEOTRAP Workshop, Cologne, Germany, April 4.
9) Bagtzoglou, A.C. and S.A. Stothoff, 1995, "Testing Infiltration Models at the Apache Leap Research Site" (invited poster), *American Geophysical Union*, San Francisco, CA, December 11-15.
10) Bagtzoglou, A.C., 1995, "Testing an Alternative Conceptual Model of Groundwater Flow at Yucca Mountain", *Evans Workshop VII: Flow and Transport Through Unsaturated Fractured Rock*, Phoenix, AZ, February 2.
11) Bagtzoglou, A.C., 1996, "A New Paradigm for Cleanup of Contaminated Sites: Are we Ready for Health Risk-Based Approaches?" *Department of Civil Engineering & Engineering Mechanics*, Columbia University, New York, NY, August 1.
12) Bagtzoglou, A.C., 1996, "Prediction of Perched Water Occurrence in Unsaturated Rock: Infiltration, Geological Structure, and Heterogeneity as Causative Mechanisms", *Department of Geological Sciences Invited Lecture Series*, University of South Carolina, Columbia, SC, January 15.
13) Bagtzoglou, A.C., 1998, "Solute Transport in Turbulent Fracture Flows and Porous Matrix", *CNWRA Dripping Workshop*, Center for Nuclear Waste Regulatory Analyses, Southwest Research Institute, San Antonio, TX, December 22.
14) Bagtzoglou, A.C., 1999, "Dripping Into the Potential Yucca Mountain Repository: Past Experience and Future Research Needs to Improve Hydrologic Assessments", Center for Nuclear Waste Regulatory Analyses, Southwest Research Institute, San Antonio, TX, September 25.
15) Bagtzoglou, A.C., 1999, "Thermally-Driven Moisture Flow Near the Vicinity of Perched Aquifers in Unsaturated Geologic Media", Division of Hydraulics & Environmental Engineering, Department of Civil Engineering, Aristotle University of Thessaloniki, Greece, March 12.
16) Bagtzoglou, A.C., 1999, "Solute Transport in Turbulent Open Channel Flows and Porous Beds", Department of Civil Engineering, University of Thessaly, Greece, March 15.

17) Bagtzoglou, A.C., 2001, "Chaotic Advection and its Role in the Water Quality of the Lower Hudson River Estuary", Department of Civil & Environmental Engineering, *University of Connecticut*, Storrs, CT, December 20.
18) Bagtzoglou, A.C., 2001, "The Onset of Chaotic Advection in Porous Media and its Implications Regarding Aquifer Remediation", Division of Earth & Physical Sciences, University of Texas, San Antonio, TX, April 5.
19) Bagtzoglou, A.C., 2001, "The Onset of Chaotic Advection in Porous Media and its Implications Regarding Aquifer Remediation", Division of Land and Water Resources, Department of Civil and Environmental Engineering, Kungl Tekniska Högskolan (Royal Institute of Technology), Stockholm, Sweden, February 20.
20) Bagtzoglou, A.C., 2001, "Simulating Dripping in a Rough, Multi-Segmented Fracture Set", Svensk Kärnbränslehantering AB (Swedish Nuclear Fuel & Waste Management Co.), Äspölaboratoriet (Äspö Hard Rock Laboratory), Sweden, February 21.
21) Bagtzoglou, A.C., 2002, "Hydrologic Inversion for Pollution Source Identification", *Environmental Scholars Colloquium*, University of Connecticut, Storrs, CT, November 22.
22) Bagtzoglou, A.C., 2002, "Overview and Application of Inverse Groundwater Models for Contaminant Source Identification", Keynote Lecture, Environmental Forensics: Advanced Techniques, *An International Society of Environmental Forensics Workshop*, Santa Fe, NM, September 23.
23) Bagtzoglou, A.C., 2003, "Chaotic Advection in Tidally-Dominated Estuarine Systems and its Potential for Water Quality Restoration", *Seminars in Oceanography*, Department of Marine Sciences, University of Connecticut, Avery Point, CT, December 12.
24) Bagtzoglou, A.C., S.A. Baun[*] and D. Cornacchiulo[*], 2003, "Near Real-Time Water Resource Contamination Event Identification" (invited poster), *International Conference on Advanced Technologies for Homeland Security*, Storrs, CT, September 25-26.
25) Bagtzoglou, A.C., J.W. Lane, D. Cornacchiulo[*], and K. Ergun, 2003, "Improved Reconstruction of Two-Dimensional Resistivity Field Data Using Geostatistics", *AGU/EGS/EUG Joint Assembly*, Nice, France, April 8.
26) Bagtzoglou, A.C., 2003, "Fractured Rock Contaminant Hydrology", *DPH Community Advisory Panel*, Cheshire, CT, March 10.
27) Bagtzoglou, A.C., 2003, "The Pont-Ventoux Tunnel Fiasco: Could Fracture Rock Hydrology Have Prevented It?" *Fractured Rock Hydrology Mini-Symposium*, Department of Geology and Geophysics, University of Connecticut, Storrs, CT, March 8.
28) Baun, S.A.[*], A.C., Bagtzoglou, and G.S. Dulikravich, 2004, "Optimization Approaches for Near Real-Time Contamination Event Identification" (invited poster), *2nd International Conference on Advanced Technologies for Homeland Security*, Storrs, CT, August 12-13.
29) Bagtzoglou, A.C., 2004, "Efficient Uncertainty Assessment for Satellite Rainfall Observations with Application to Flood Prediction", Department of Atmospheric Sciences, Instituto de Astronomia, Geofísica e Ciências Atmosféricas, *Universidade de São Paulo*, March 19.
30) Bagtzoglou, A.C., 2004, "Progress Towards Developing a Radar Calibration Method for Improved Rainfall Estimation", Department of Atmospheric Sciences, Instituto de Astronomia, Geofísica e Ciências Atmosféricas, *Universidade de São Paulo*, March 18.
31) Warner, G.S. and A.C. Bagtzoglou, 2005, "Long-Term Impact Analysis of the University of Connecticut's Fenton River Water Supply Wells on Habitat of the Fenton River", *UConn Environmental Policy Advisory Council*, Storrs, CT, December 15.
32) Bagtzoglou, A.C., 2005, "Ground Water Modeling and Pumping Management for the Fenton River Well-Field", *Final Project Presentation to Technical Advisory Group*, Storrs, CT, December 5.
33) Bagtzoglou, A.C., 2005, "Reverse-Time Modeling for Pollution Event Reconstruction and Identification of Contaminant Sources in Natural Media", *Seminars in Earth and Atmospheric Sciences*, Department of Earth and Atmospheric Sciences, *City College, City University of New York*, New York, NY, May 13.
34) Bagtzoglou, A.C., 2005, "Chaotic Advection Enhanced Groundwater Remediation", *Five Years of CT Institute of Water Resources Sponsored Research Symposium*, Storrs, CT, April 27.
35) Bagtzoglou, A.C., 2006, "Chaotic Flows and their Application to Enhanced Groundwater Remediation", *Grup d'Hidrologia Subterrània, Universitat Politècnica de Catalunya*, Barcelona, Spain, July 13.
36) Bagtzoglou, A.C., 2006, "Chaotic Flows and their Application to Different Environmental Media for Enhanced Remediation", *Institut National Polytechnique de Toulouse, Ecole Nationale Supérieure d'Electrotechnique, d'Electronique, d'Informatique, d'Hydraulique et des Télécommunications*, Toulouse, France, June 26.

37) Bagtzoglou, A.C., 2006, "Advanced Environmental Forensics", *Groupe d'Etudes sur les Milieux Poreux, Institut de Mecanique des Fluides de Toulouse*, Toulouse, France, June 19.
38) Bagtzoglou, A.C., 2006, "Groundwater Modeling of the Fenton River Well Field", *The Fenton River Study Seminar Series, CT Institute of Water Resources*, Storrs, CT, March 22.
39) Li, B., and A.C. Bagtzoglou, 2008, "Environmental Challenges of Nanoparticles and Research Opportunities", *Nanotechnology Research Forum*, Storrs, CT, March 5.
40) Malla, R., A.C. Bagtzoglou, B. Cetegen and T. Barber, 2008, "An Innovative Small Scale, Environmentally Friendly, Low-Head Hydropower Concept," *Energy Forum*, University of Connecticut, Storrs, CT, November 4.
41) Bagtzoglou, A.C. and S. Govindan, 2011, "Academic and Business Partnerships: Working Together to Accelerate Success," T262A, *American Society for Engineering Education*, 118th Annual Conference and Exposition, Vancouver, BC, June 28.
42) Bagtzoglou, A.C., 2012, "Chaotic Advection in Tidally-Dominated Estuarine Systems and its Potential for Water Quality Restoration," *Instituto Tecnologico de Buenos Aires*, Buenos Aires, Argentina, June 19.
43) Li, B., L. Wang, Y. Lei, J.-H. Cui, P. Vlahos, and A.C. Bagtzoglou, 2013, "Biomass-based Energy Harvesting Systems for Sustainable Coastal Undersea Sensing," *NSF I/UCRC Workshop on Smart Ocean Technology*, June 11.
44) Malla, R.B., A.C. Bagtzoglou, B. Shrestha, and L. Vila, 2013, "A Special Mechanism for Energy Harvesting from Ocean Currents, Tides, and Waves," *NSF I/UCRC Workshop on Smart Ocean Technology*, June 11.
45) Bagtzoglou, A.C., and A. Beyabanaki*, 2014, "Modeling Landslides by using the DDA and a New Combined Hydrology and Stability Model," *Ethiopian Institute of Water Resources, Addis Ababa University*, Akaki, Ethiopia, June 12.
46) Bagtzoglou, A.C., and J. Starn, 2015, "Using Atmospheric Tracers to Reduce Uncertainty in Groundwater Recharge Areas and Water Quality Trends in Transient Flow Systems," *Northeastern University College of Engineering Distinguished Seminar Series*, Boston, MA, December 3.
47) Briggs, M.A., J.W. Lane, C.D. Snyder, S. Hurley, N.P Hitt, E.A. White, Z.C. Johnson, D.L. Nelms, D. Werkema, A.C. Bagtzoglou, 2016, "Groundwater Flowpath Controls on Seepage Temperature and Future Cold Water Stream Habitat," *GSA Meeting*, Denver, Colorado, September 25-28.
48) Bagtzoglou, A.C., 2019, "Investigation of Chromium Blooms due to Capillary Rise and Water Table Fluctuations in Unsaturated Soils", *Institut National Polytechnique de Toulouse*, *Ecole Nationale Supérieure d'Electrotechnique, d'Electronique, d'Informatique, d'Hydraulique et des Télécommunications*, Toulouse, France, April 17.
49) Bagtzoglou, A.C., 2019, "PIRE: Taming Water in Ethiopia – An Interdisciplinary Approach to Improve Human Security in a Water-Dependent Emerging Region – Overview & Integration of Watershed-Groundwater-Crop Yield Models", *Institut de Mecanique des Fluides de Toulouse*, Toulouse, France, April 10.
50) Dehkordy, F.M.*, M.A. Briggs, F.D. Day-Lewis, A.C. Bagtzoglou, K. Singha, J.P. Zarnetske, 2018, "Less-mobile Exchange Dynamics in Porous Media," *EOS: Transactions of the AGU*, Abstract U12B-15 (Invited).
51) Dehkordy, F.M.*, M.A. Briggs, A.C. Bagtzoglou, F.D. Day-Lewis, Z. Dokou, K. Singha, and J.P. Zarnetske, 2019, "Experimental and Numerical Analysis of Less-mobile Domain Processes in Naturally Occurring Porous Media," *EOS: Transactions of the AGU*, Abstract H21D-01 (Invited).

B.2 PUBLISHED ABSTRACTS

(Not overlapping with conference proceedings abstracts when a full paper was published)
(A ^{p} after the year of an abstract published in proceedings indicates that presentation was given by Bagtzoglou)
(A * after a co-author's name indicates student or post-doc working under Bagtzoglou's direct supervision)

1) Bagtzoglou, A.C., 1986^{p}, "An Experimental Study of the Dispersion Coefficient's Dependence on Aquifer Thickness", *FS/AWWA-FPCA Conference on Environmental Science and Engineering*, Orlando, FL.
2) Dougherty, D.E., A.C. Bagtzoglou, and A.F.B. Tompson, 1989, "Particle Methods for Reactive Transport: Review and Consistent Formulation", *EOS: Transactions of the AGU*, 70(43), p.1078.
3) Tompson, A.F.B., D.E. Dougherty, and A.C. Bagtzoglou, 1989, "Particle Methods for Reactive Transport: Vector & Parallel Implementation and Examples", *EOS: Transactions of the AGU*, 70(43), p.1078.
4) Tompson, A.F.B., D.E. Dougherty, R.B. Knapp, and A.C. Bagtzoglou, 1989, "Simulation of Reactive Transport in Natural Porous Media Using Particle Methods", *SIAM Conference on Mathematical and Computational Issues in Geophysical Fluids and Solid Mechanics*, Houston, TX.

5) Bagtzoglou, A.C., R. Ababou, and B. Sagar, 1992[p], "Effects of Some Common Geological Features on 2-D Variably Saturated Flow", *Materials Research Society Fall Meeting*, p.613.
6) Mohanty, S.[*], A.C. Bagtzoglou, and A. Nedungadi, 1993, "Efficient Calculation of Effective Hydraulic Conductivities for Unsaturated, Fractured Porous Media", *EOS: Transactions of the AGU*, 74(43), p.308.
7) Seida, S., A.C. Bagtzoglou, and B. Sagar, 1993[p], "Application of a Neural Network Methodology for the Estimation of Petrophysical Property Spatial Distributions under Conditions of Qualitative Parameter Availability", *EOS: Transactions of the AGU*, 74(43), p.303.
8) Bagtzoglou, A.C., R. Ababou, S. Mohanty[*], and R.G. Baca, 1993[p], "Conditional Simulation and Estimation of Gauss-Markov Random Fields for Massively Parallel Architectures", Minisymposium on Parallel Computation in Applications, *2nd SIAM Conference on Mathematical & Computational Issues in Geosciences*, Houston, TX.
9) Stothoff, S.A. and A.C. Bagtzoglou, 1995, "Estimation of Recharge at Yucca Mountain, Nevada", *EOS: Transactions of the AGU*, 76(46), p. F242-F243.
10) Bagtzoglou, A.C. and S.A. Stothoff, 1995[p], "Testing Infiltration Models at the Apache Leap Research Site", *EOS: Transactions of the AGU*, 76(46), p. F252.
11) Green, R.T., G.W. Wittmeyer, and A.C. Bagtzoglou, 1995[p], "Uncertainty Reduction in the Implementation of a Geologic High Level Waste Repository Performance Regulation Using Subsurface Flow Models", *EOS: Transactions of the AGU*, 76(17), p. S110-S111.
12) Tolley, T.L.[*], and A.C. Bagtzoglou, 1996, "Perched Water Bodies in Arid Environments and Inferences for Recharge Rates", *EOS: Transactions of the AGU.*
13) Bagtzoglou, A.C., and T.L. Tolley[*], 1996[p], "Perched-Water Bodies in Arid Environments: Inferences for Recharge Rates", *Symposium on Unsaturated Zone Hydrology*, GSA Annual Meeting, Austin, Texas, March 12.
14) Mankiewicz, P.S., J.A. Mankiewicz, F.H. Griffis, A.C. Bagtzoglou, A. van Geen, and R.J Versteeg, 1998, "Should Salt-Marshes be Constructed with Dredged Sediments?" *Proceedings of Marsh Conference'98.*
15) Oates, P.[*], A.C. Bagtzoglou, and R. Chevray, 2000[p], "Chaotic Advection Enhanced Natural Attenuation", *EOS: Transactions of the AGU*, 81(48), p. F453.
16) Bertetti, F.P., M.E. Hill[*], A.C. Bagtzoglou, S.J. Birnbaum, and L.P. McAllister, 2000, "Experiences in Laboratory Studies of the Effects of Bioclogging of Porous Media", Abstract with Programs, 32(7), p. A-354, *GSA Annual Meeting*, Reno, NV.
17) Cesano, D.[*] and A.C. Bagtzoglou, 2000, "How Much Heterogeneous Can a Fracture Network Be?", *EOS: Transactions of the AGU*.
18) Atmadja, J.[*] and A.C. Bagtzoglou, 2000, "Groundwater Pollution Source Identification Using the Backward Beam Equation Method", *EOS: Transactions of the AGU*.
19) Gorokhovich, Y., N. Themelis, and A.C. Bagtzoglou, 2000, "Curriculum Development of an Introductory Course in GIS for Engineering Schools", *American Society for Photogrammetry and Remote Sensing Conference*, Washington, DC.
20) Bagtzoglou, A.C., F. El-Habel[*], and P. Oates[*], 2001[p], "Quantification of Transport of Solutes across the Porous Bed-Stream Water Interface with Tracer Tests", *EOS: Transactions of the AGU*, 82(47), p. F402.
21) Bagtzoglou, A.C., and F. El-Habel[*], 2001, "Pore Water Flow and Transport of Solutes Across the Porous Bed – Stream Water Interface", *International Association of Hydrogeologists, International Groundwater Conference on Balancing the Groundwater Budget*, Darwin, Northern Territory, Australia.
22) Chevray, R., A.C. Bagtzoglou, and P. Oates[*], 2001, "Chaotic Advection in Groundwater and Implications Regarding Aquifer Remediation", *5th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics*, Thessaloniki, Greece.
23) Cesano, D.[*] and A.C. Bagtzoglou, 2001[p], "Dripping from Rough Multi-Segmented Fracture Sets into Unsaturated Rock Underground Excavations", *EOS: Transactions of the AGU*, 82(20), p. S186.
24) Atmadja, J.[*] and A.C. Bagtzoglou, 2001[p], "The Marching-Jury Backward Beam Equation and Quasi-Reversibility Inverse Methods for Contaminant Plume Spatial Distribution Recovery", *EOS: Transactions of the AGU*, 82(20), p. S202.
25) Bagtzoglou, A.C., J.W. Lane, D. Cornacchiulo[*], and K. Ergun, 2003[p], "Improved Reconstruction of Two-Dimensional Resistivity Field Data Using Geostatistics", *Geophysical Research Abstracts*, Vol. 5, p.176.
26) Bagtzoglou, A.C., and A. Novikov[*], 2003[p], "Chaotic Advection in Tidally-Dominated Estuarine Systems and its Potential for Water Quality Restoration", *Geophysical Research Abstracts*, Vol. 5, p.389.

27) Bagtzoglou, A.C., P. Oates[*], and E. Loehmann[*], 2004[p], "Chaotic Advection Enhanced Remediation", *Proceedings of AWRA 2004 Annual Water Resources Conference*, Nix, S.J. (Editor), American Water Resources Association, Middleburg, Virginia, TPS-04-3, CD-ROM.
28) Niedzialek, J.M.[*], F.L. Ogden, and A.C. Bagtzoglou, 2004, "Implementation of Particle Tracking to a Physically Based Hydrologic Model and Implications for Calibration", *EOS: Transactions of the AGU*, 85(47), p. F706.
29) Bagtzoglou, A.C., S.A. Baun[*], and E.N. Anagnostou, 2004, "A Radar Calibration Method for Improved Rainfall Estimation", *Geophysical Research Abstracts*, Vol. 6, 1607-7962: 05934.
30) Bagtzoglou, A.C., F. Hossain[*], E.N. Anagnostou, 2004, "Uncertainty Assessment for Satellite Rainfall Observations with Latin Hypercube Sampling", *Geophysical Research Abstracts*, Vol. 6, 1607-7962: 05873.
31) Hossain, F., A.C. Bagtzoglou, B. Sivakumar, and S. Shahid, 2005, "A Low-cost and Non-structural Simulation Approach for Prevention of Arsenic Contaminated Water Supply in a Rural Setting: The Case of Bangladesh," *EPSCor Environmental Summit*, Tennessee Technological University, TN.
32) Hossain, F., J. Hill, B. Sivakumar, and A.C. Bagtzoglou, 2005, "Linear Stochastic and Non-linear Deterministic Paradigms for Improved Spatial Interpolation of Groundwater Contamination in a Rural Setting: Implications for Management of Arsenic Contamination in Bangladesh", *EOS: Transactions of the AGU*, 86(52), p. F1042.
33) Bagtzoglou, A.C., 2005[p], "Chaotic Mixing and Enhanced Biological Growth: Implications for Wastewater Treatment", *Proceedings of XIV International Material Research Congress, Symposium on Ecomaterials*, p. 17/4-5.
34) Nadim, F.[*], A.C. Bagtzoglou, F.L. Ogden, and G.S. Warner, 2005, "Sustainable Pumping Strategy for the University of Connecticut Well Field During Drought Periods", *Abstract Proceedings of Science for Sustainable Water Resources Conference*, University of Massachusetts Water Resources Center.
35) Nadim, F.[*], A.C. Bagtzoglou, F.L. Ogden, and G.S. Warner, 2005, "Management of the University of Connecticut Well Field During Drought Periods", *Proceedings of AWRA 2005 Annual Water Resources Conference*, Steward, C. (Editor), American Water Resources Association, Middleburg, Virginia, TPS-05-3, CD-ROM.
36) Kram, M., G.A. Robbins, N. Jones, A.C. Bagtzoglou and J. Chau[*], 2006, "Detailed Hydraulic Assessment Using a High-Resolution Piezocone and 3D Conceptual Models", *Groundwater Resources Association of California 2nd Symposium on High Resolution Site Characterization & Monitoring*, Long Beach, California.
37) Kram, M., N. Jones, G.A. Robbins, and A.C. Bagtzoglou, 2006, "Understanding GW Flow Pathways, Gradients, and Contaminant Fluxes", *SERDP/ESTCP Partners in Environmental Technology Technical Symposium & Workshop*, Washington, DC.
38) Cornachiulo, D.F.[*], and A.C. Bagtzoglou, 2006, "Multi-Dimensional Marching Jury Backwards Beam Equation Method with Uncertainty in Transport Parameters: Influence of Non-Gaussianity and Sampling Network on Pollution Event Reconstruction", *Natural Gas Technologies 2006: Energy and the Environment*, Lake Buena Vista, Florida.
39) Dahmani, M.A., K. Huang, and A.C. Bagtzoglou, 2006, "Case Study of Natural In-Situ Catalysis of Sodium Persulfate for the Treatment of Chlorinated Ethenes", *5th International Conference on Remediation of Chlorinated and Recalcitrant Compounds*, Monterey, California (Paper #3 in B6 – Chemical Treatment with Persulfate).
40) Warner, G.S., A.C. Bagtzoglou, L. Liu, and F.L. Ogden, 2007, "Hydrologic Impact of Water Supply Wells on the Fenton River, Storrs, Connecticut", *Connecticut Conference on Natural Resources*, Storrs, Connecticut.
41) Rahman, S.[*], A.C. Bagtzoglou, L. Yarbrough, and F. Hossain, 2007, "Investigating Satellite Rainfall Based Flood Modeling in Anticipation of GPM: Understanding the Worth of Spatial Downscaling and Satellite Rainfall Uncertainty", *EOS: Transactions of the AGU*, 88(52), Abstract IN43B-1176.
42) Dathe, A., P. Zhang, and A.C. Bagtzoglou, 2007, "Verification of Chaotic Advection Enhanced Mixing in Porous Media Using Real Time Imaging", *EOS: Transactions of the AGU*, 88(52), Abstract H42C-05.
43) Zhou[*], Z., J.-H. Cui, and A.C. Bagtzoglou, 2007, "Scalable Localization with Mobility Prediction for Underwater Sensor Networks", *2nd ACM International Workshop on Underwater Networks, 13th Annual International Conference on Mobile Computing and Networking*, Montreal, Canada.
44) Kram, M., N. Jones, J. Chau[*], G. Robbins, and A.C. Bagtzoglou, 2008, "Mass Flux Distribution Using the High-Resolution Piezocone and GMS", *6th International Conference on Remediation of Chlorinated and Recalcitrant Compounds*, Monterey, California (Paper in D3 – Innovative Site Assessment and Performance Monitoring Tools).
45) Kram, M., N. Jones, J. Chau[*], G. Robbins, A.C. Bagtzoglou, J. Farrar, and T. Dalzell, 2008, "Mass Flux Distribution Using the High-Resolution Piezocone and GMS and Innovative Cost-Effective Ground-Water Monitoring Well Design", *North American Environmental Field Conference and Exposition*, Tampa, Florida (Paper in Advances in Environmental Site Characterization, Monitoring, Sampling & Remediation Technology).

46) Chau, J.[*], A.C. Bagtzoglou, and M. Willig, 2008, "Measuring Soil Bacteria Diversity across a Range of Soil Textures", *Connecticut Conference on Natural Resources*, Storrs, Connecticut.
47) Cornachiulo, D.F. and A.C. Bagtzoglou, 2008, "Multi-Dimensional Marching-Jury Backwards Beam Equation Method with Uncertainty in Transport Parameters", *NGWA Conference on Eastern Regional Ground Water Issues*, Ronkonkoma, New York.
48) Chau[*], J.F., A.C. Bagtzoglou, and D. Or, 2008, "Simulating Isolated Bacterial Microhabitats in Unsaturated Soil", *International Conference on Computational Methods in Water Resources XVII*, San Francisco, CA.
49) Bagtzoglou, A.C., J.F. Chau[*], M. Kram, G. Robbins, 2008, "Evaluation of High-Resolution Piezocone Methods for Site Characterization and Groundwater Modeling", *International Conference on Computational Methods in Water Resources XVII*, San Francisco, CA.
50) Chau[*], J.F., A.C. Bagtzoglou, and D. Or, 2008, "Relating Bacterial Diversity to Soil Texture", *ASM General Meeting*, Boston, MA.
51) Kram, M., N. Jones, J. Chau[*], G. Robbins, A.C. Bagtzoglou, J. Farrar, and T. Dalzell, 2008, "Hydraulic Parameter and Mass Flux Distribution Using the High-Resolution Piezocone and GMS", *Triad Investigations: New Approaches and Innovative Strategies*, University of Massachusetts, Amherst.
52) Malla, R., B. Shrestha[*], J. Drasdis and A.C. Bagtzoglou, 2009, "Lift Force Generated by a Reciprocating, Small Scale, Low-Flow Rate Hydropower Model," *ASCE-ASME-SES Joint Conference on Mechanics and Materials*, Blacksburg, VA, June 24-27.
53) Chau[*], J.F., A.C. Bagtzoglou, and M. Willig, 2009, "Effect of Soil Texture on Bacterial Richness and Diversity", *ASM General Meeting*, Boston, MA.
54) Anagnostou, E.N., E.I. Nikolopoulos, A. Papadopoulos and A.C. Bagtzoglou, 2010, "Using High-Resolution Satellite Rainfall Products to Nowcast Major Flash-Flood Inducing Storms," *EOS: Transactions of the AGU*, Abstract H32D-02.
55) Dahal G., K. Brown, C. Granda-Carvajal, M. Chrysochoou, N. Garrick, K. Segerson, and A.C. Bagtzoglou, 2010, "Reversing Urban Sprawl: A Reclaimability Approach to Reviving Downtown Brownfields," *International Conference on Green Remediation*, University of Massachusetts, Amherst, June 15-17.
56) Chrysochoou M., N. Garrick, K. Segerson, A.C. Bagtzoglou, G. Dahal, K. Brown, and C. Granda-Carvajal, 2010, "Reversing Urban Sprawl: A Reclaimability Approach to Reviving Downtown Brownfields," *University Transportation Center Conference on Transportation for Livable Communities*, Washington DC, October 18-19.
57) Malla, R.B, Shrestha, B. and A.C. Bagtzoglou, 2010, "Energy Generation using Reciprocating Small Scale Hydropower System," Book of Abstracts/Proceedings, Joint ASNEngr/CAN-USA Annual Conference, organized by Am. Soc. of Nepalese Engineers and Computer Assoc. of Nepal-USA, Boston, MA, July 3-4.
58) Chrysochoou M., G. Dahal, N. Garrick, K. Brown, K. Segerson, C. Granda-Carvajal, and A.C. Bagtzoglou, 2011, "Prioritizing Brownfields for Development: A GIS Tool and Indexing Scheme for Environmental, Socioeconomic and Smart-Growth Factors," *Transportation Research Board 90th Annual Meeting*, Washington DC, January 23-27.
59) Chlebica, D.W., G.A. Robbins, H. Spera, and A.C. Bagtzoglou, 2012, "Resolving Fractured Bedrock Aquifer Flow and Sustainability Issues Using an Equivalent Porous Media Model", *International Conference on Groundwater in Fractured Rocks*, Prague, Czech Republic, May 21-24.
60) Liu, L., Z. Liu, H. Xie, B. Barrowes, and A.C. Bagtzoglou, 2012, "Ground Penetrating Radar Detection of Human Vital Signs in Complex Environments", *Progress in Electromagnetics Research Symposium*, Malaysia, March 27-30.
61) Beyabanaki[*], S.A., A.C. Bagtzoglou, and E.N. Anagnostou, 2013, "Effect of Water Content on Stability of Landslides Triggered by Earthquakes," *EOS: Transactions of the AGU*, Abstract H51J-1334.
62) Liu, L., A.C. Bagtzoglou, and S.A. Beyabanaki[*], 2015, "Failure Zone Development in High-Cut Slopes under Strong Ground Motion Dynamic Load in Different Beddings: Numerical Simulation with Discontinuous Deformation Analysis (DDA) and Insights Gained for Retaining Structure Design," *1st Pan-American Congress on Computational Mechanics*, Buenos Aires, Argentina, April 27-29.
63) Motaref, S., and A.C. Bagtzoglou, 2017, "Development and Implementation of Mid-Level Engineering Flipped Courses for Large-Size Classes," *American Society for Engineering Education*, 124th Annual Conference and Exposition, Columbus, Ohio, June 25-28.
64) Azage, M.[*], A. Kumie, A. Worku, A.C. Bagtzoglou, and E.N. Anagnostou, 2017, "Effect of Climatic Variability on Childhood Diarrhea and its High Risk Periods in Northwestern Parts of Ethiopia," *6th Conference of the International Society for Child Indicators*, Montreal, Canada, June 28-30.

65) Dehkordy, F.M.*, M.A. Briggs, F.D. Day-Lewis, and A.C. Bagtzoglou, 2017, "Investigating the development of less-mobile porosity in realistic hyporheic zone sediments with COMSOL Multiphysics," *EOS: Transactions of the AGU*, Abstract H14F-04.
66) Dehkordy, F.M.*, M.A. Briggs, F.D. Day-Lewis, C. Scruggs, K. Singha, J.P. Zarnetske, J.W. Lane, and A.C. Bagtzoglou, 2017, "Hyporheic less-mobile porosity and solute transport in porous media," *EOS: Transactions of the AGU*, Abstract U23B-06.
67) Dokou, Z., M. Kheirabadi*, E.I. Nikolopoulos, S.A. Moges, A.C. Bagtzoglou, and E.N. Anagnostou, 2017, "Using multi-year reanalysis-derived recharge rates to drive a groundwater model for the Lake Tana region of Blue Nile Basin, Ethiopia," *EOS: Transactions of the AGU*, Abstract H13G-1479.
68) Koukoula, M., E.I. Nikolopoulos, Z. Dokou, S.A. Moges, A.C. Bagtzoglou, and E.N. Anagnostou, 2017 "Evaluation of water cycle components in the Upper Blue Nile basin based on an ensemble of water resources reanalysis products" 5th International Conference on Reanalysis (ICR5), Rome, Italy.
69) Hasan, E., Z. Dokou, P.-E. Kirstetter, A. Tarhule, E.N. Anagnostou, A.C. Bagtzoglou, and Y. Hong, 2017, "Assessing Lake Level Variability and Water Availability in Lake Tana, Ethiopia using a Groundwater Flow Model and GRACE Satellite Data," *EOS: Transactions of the AGU*, Abstract H14B-06.
70) F.K. Khadim*, R. Lazin, Z. Dokou, A.C. Bagtzoglou, and E.N. Anagnostou, 2018, "Development of a Calibrated Groundwater Model in an In-situ Data Scarce Region of the Upper Blue Nile," *EOS: Transactions of the AGU*, Abstract H23J-2476.
71) Dokou, Z., F.K. Khadim*, W. Zhou, Z. Flamig, M. Moges, S.A. Tilahun, M. Azage, S.A. Moges, B. Li, J. Mellor, G. Wang, A.C. Bagtzoglou, Y. Hong, and E.N. Anagnostou, 2018, "Citizen Science at the Source of the Blue Nile: Promoting Public Participation in Science for Ensuring Food and Water Security in Ethiopia," *EOS: Transactions of the AGU*, Abstract NH43B-2984.
72) Dehkordy, F.M.*, M.A. Briggs, F.D. Day-Lewis, C. Scruggs, K. Singha, A. Krajnovich, T.B. Hampton, J.P. Zarnetske, and A.C. Bagtzoglou, 2018, "Observation of Less-mobile Porosity Dynamics in an Urban Stream," *EOS: Transactions of the AGU*, Abstract H34E-04.
73) Dehkordy, F.M.*, M.A. Briggs, F.D. Day-Lewis, A.C. Bagtzoglou, K. Singha, and J.P. Zarnetske, 2018, "Less-mobile Exchange Dynamics in Porous Media," *EOS: Transactions of the AGU*, Abstract U12B-15.
74) Zhang, J., W. Hughes, W. Zhang, and A.C. Bagtzoglou, 2019, "Fragility Assessment of Power Distribution System for Resilience Hardening", *2019 EMI & GeoI Specialty Conference*, CalTech, MS68: 1162.
75) Dehkordy, F.M.*, M.A. Briggs, A.C. Bagtzoglou, F.D. Day-Lewis, Z. Dokou, K. Singha, J.P Zarnetske, and W. Franco, 2019, "Experimental and Numerical Analysis of Less-mobile Domain Processes in Naturally Occurring Porous Media" (Invited), *EOS: Transactions of the AGU*, Abstract H21D-01.
76) Khadim*, F.K., Z. Dokou, M. Yang, R. Lazin, A.C. Bagtzoglou, G. Wang and E.N Anagnostou, 2019, "Modeling the Groundwater-Vadose Zone Interactions for Water-Food Security Assessment in Different Irrigation and Water Management Scenarios in Ethiopia," *EOS: Transactions of the AGU*, Abstract H33P-2250.
77) Dokou, Z., S. Alexander, A.C. Bagtzoglou, P.J. Block, M.R. Haider, E. Holzer, F.K. Khadim, M. Koukoula, J. Lala, R. Lazin, S. Moges, E. Nikolopoulos, M. Peña, X. Shen, G. Wang, S. Wu, M. Yang and E.N. Anagnostou, 2019, "Seasonal Forecasting in the Blue Nile Basin, Ethiopia for Ensuring Food and Water Security," *EOS: Transactions of the AGU*, Abstract H33P-2254.
78) Yang, M., G. Wang, F.K. Khadim, R. Lazin, M.R. Haider, Z. Dokou, A.C. Bagtzoglou and E.N. Anagnostou, 2019, "Simulation and Seasonal Prediction of Irrigated Cereal Crop Yields in Data-Scarce Region Using a Hydrologic-Groundwater-Crop (HGC) Modeling Framework," *EOS: Transactions of the AGU*, Abstract B52A-05.
79) Khadim*, F.K., Z. Dokou, R. Lazin, M. Yang, A.C. Bagtzoglou, and E.N. Anagnostou, 2020, "Citizen Science Aided Groundwater Modeling for Assessing Optimal Irrigation Releases: A Case in Quashni River, Upper Blue Nile, Ethiopia," *EOS: Transactions of the AGU*, Abstract GC100-0002.
80) Rigler, G., Z. Dokou, F.K. Khadim*, W. Zhou, Y. Teshome Lemma, M. Moges, S.A. Tilahun, M. Azage, X. Wang, B. Li, A.C. Bagtzoglou, Y. Hong, E. Holzer, and E.N. Anagnostou, 2020, "Citizen Science in the Upper Blue Nile Basin: Capturing the Hydrological Cycle and Catalyzing Community Participation," *EOS: Transactions of the AGU*, Abstract SY011-0002.
81) Chrysochoou, M., C. Syharat, A.E. Zaghi, A.C. Bagtzoglou, S. Motaref, and S. Jang, 2021, "Redesigning Engineering Education for Neurodiversity: New Standards for Inclusive Courses," *American Society for Engineering Education*, Annual Conference and Exposition, Long Beach, California, June 27-30.