




## Keith Loague

Professor of Geological Sciences, Emeritus  
Earth & Planetary Sciences

 Resume available Online

### Bio

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#### ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Earth & Planetary Sciences

#### ADMINISTRATIVE APPOINTMENTS

- Professor Emeritus, Department of Geological Sciences, Stanford University, (2017- present)
- Professor, Department of Geological & Environmental Sciences, Stanford University, (2000-2017)
- Associate Professor, Department of Geological & Environmental Sciences, Stanford University, (1994-2000)
- Associate Professor, Department of Environmental Science, Policy, & Management, UC Berkeley, (1992-1994)
- Assistant Professor, Department of Plant & Soil Biology (Soil Science), UC Berkeley, (1988-1992)
- Assistant Professor, Department of Forestry & Resource Management, UC Berkeley, (1988-1991)
- Assistant Professor, Department of Geology & Geophysics, University of Hawaii @ Manoa, (1985-1988)

#### HONORS AND AWARDS

- Hoagland Prize, Stanford University (2000)
- Keynote Speaker, Spatial Accuracy Assessment Symposium, Amsterdam, The Netherlands (2000)
- JC Stevens Award, American Society of Civil Engineers (1999)
- Excellence in Teaching Award, School of Earth Sciences, Stanford University (1997)
- Master Class Lecturer, Universida De La Laguna, Tenerife, Spain (1993)
- Parker Mission Lecturer, hosted by the Hikkaido River Disaster Prevention Research Center, Japan (1993)

#### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Sabbatical, Stanford University (2013 - 2014)
- Invited Speaker, School of Earth Sciences (ES 1), Stanford University (2012 - 2012)
- Contributor, Retirement Symposium, University of Washington @ Seattle (2010 - 2010)
- Invited Speaker, Sustainable Groundwater, San Francisco CA (2010 - 2010)
- Invited Speaker, Geological Society of America Annual Meeting, Portland OR (2009 - 2009)
- Invited Speaker, School of Earth Sciences (SES 300), Stanford University (2008 - 2008)
- Invited Speaker, School of Earth Sciences (SES 300), Stanford University (2006 - 2006)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 1X), Stanford University (2006 - 2006)
- Graduate Student Coordinator, Department of Geological & Environmental Sciences, Stanford University (2005 - 2012)

- Invited Speaker, Hydrology Section, American Geophysical Union Fall Meeting, San Francisco CA (2005 - 2005)
- Associate Chair, Department of Geological & Environmental Sciences, Stanford University (2004 - 2006)
- Invited Speaker, School of Earth Sciences (SES 300), Stanford University (2004 - 2004)
- Member, Search Committee, faculty appointment in Earth Surface Processes, Stanford University (2003 - 2004)
- Associate Editor, Ground Water (2003 - 2003)
- Invited Participant, Department of Geological & Environmental Sciences (major night), Stanford University (2003 - 2003)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 170), Stanford University (2003 - 2003)
- Invited Participant, Department of Geological & Environmental Sciences (major night), Stanford University (2002 - 2002)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 170), Stanford University (2002 - 2002)
- Sabbatical, Fort Lewis College, Durango CO (2001 - 2002)
- Invited Speaker, Law School, Stanford University (2001 - 2001)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 170), Stanford University (2001 - 2001)
- Invited Speaker, Center for Teaching & Learning, Stanford University (shown on Stanford TV) (2001 - 2001)
- Invited Speaker, Quest Scholars Program, Stanford University (2001 - 2001)
- Invited Speaker, Department of Geography & Environmental Engineering, The Johns Hopkins University (2001 - 2001)
- Invited Speaker, Hydrology Seminar Series, Oregon State University (2001 - 2001)
- Invited Speaker, Fort Lewis College, Durango CO (2001 - 2001)
- Associate Editor, Journal of Environmental Quality (2000 - 2001)
- Invited Speaker, Sophomore College, Stanford University (2000 - 2000)
- Invited Speaker, Department of Geological and Environmental Sciences (GES 170), Stanford University (2000 - 2000)
- Invited Speaker, Department of Petroleum Engineering, Stanford University (2000 - 2000)
- Invited Speaker, Soil Science Society of America Annual Meeting, Minneapolis MN (2000 - 2000)
- Invited Speaker, Kirkham Conference, Iowa State University (2000 - 2000)
- Invited Speaker, Quest Scholars Program, Stanford University (2000 - 2000)
- Keynote Address, ACCURACY 2000, Amsterdam, The Netherlands (2000 - 2000)
- Member, Search Committee for a faculty appointment in Petroleum Engineering, Stanford University (2000 - 2000)
- Associate Editor, Journal of Floodplain Management (1999 - 2001)
- Co-Organizer/Convener, AGU Chapman Conference, Riverside, CA (1999 - 1999)
- Invited Speaker, Department of Land, Air & Water Resources, UC Davis (1999 - 1999)
- Invited Speaker, School of Earth Sciences Faculty Brown Bag Series, Stanford University (1999 - 1999)
- Invited Panelist, Second Annual Earth Systems Summit, Stanford University (1998 - 1998)
- Invited Speaker, Earth Systems Program (ES 10), Stanford University (1998 - 1998)
- Member, Search Committee for a faculty appointment in Petroleum Engineering, Stanford University (1998 - 1998)
- Member, Steering Committee, ILSI Risk Science Institute and EPA, Washington, DC (1998 - 1998)
- Co-Organizer, Chapman (AGU) / SSSA Outreach Conference, Application of GIS, Remote Sensing, Geostatistics, and Solute Transport Modeling to the Assessment of Nonpoint Source Pollutants in the Vadose Zone, Riverside CA (1997 - 1997)
- Contributor, AGU Chapman / SSSA Outreach Conference, Riverside CA (1997 - 1997)
- Invited Speaker, Classes without Quizzes, School of Earth Sciences, Stanford University (1997 - 1997)
- Invited Speaker, Department of Petroleum Engineering, Stanford University (1997 - 1997)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 1), Stanford University (1997 - 1997)

- Invited Speaker, Department of Land, Air & Water Resources, UC Davis (1997 - 1997)
- Invited Speaker, Department of Geology, Arizona State University (1997 - 1997)
- Member, Admissions Committee, Department of Geological & Environmental Sciences, Stanford University (1997 - 1997)
- University Chair, 35 PhD defenses, Stanford University (1996 - 2015)
- Adviser (thesis), 11 undergraduate honors students, Stanford University (1996 - 2009)
- Co-Founder/Director, Center for Earth Science Information Research (CESIR), Stanford University (1996 - 2001)
- Member, Earth Systems Steering Committee, Stanford University (1996 - 1999)
- Invited Panelist, Students for Environmental Action - Earth Week, Stanford University (1996 - 1996)
- Invited Participant, Stanford Faculty Summer Service-Learning Institute, Marconi Conference Center, Marshall CA (1996 - 1996)
- Invited Speaker, Water Resources Research Center, University of Hawaii @ Manoa (1996 - 1996)
- Invited Speaker, Classes without Quizzes, School of Earth Sciences, Stanford University (1996 - 1996)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 170), Stanford University (1996 - 1996)
- Invited Speaker, Northern California Geological Society, Concord CA (1996 - 1996)
- Invited Speaker, Department of Geology, San Jose State University (1996 - 1996)
- Invited Speaker, Department of Geology, UC Santa Cruz (1996 - 1996)
- Invited Speaker, Scale Problems in Hydrology Workshop, Schlo# Krumbach, Austria (1996 - 1996)
- Reading Committees, 50 PhD students, Stanford University (1995 - 2016)
- Reading Committees, 16 MS students, Stanford University (1995 - 2013)
- Member, Committee on Urban Studies, Stanford University (1995 - 2000)
- Member, Search Committees for faculty appointment in Soil / Environmental Geochemistry, Stanford University (1995 - 1998)
- Committee Member, Oceans Margins Initiative, Stanford University (1995 - 1996)
- Contributor, School of Earth Sciences (Advisory Board), Stanford University (1995 - 1995)
- Invited Panelist, CTY College Colloquium, UC Davis (1995 - 1995)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 1), Stanford University (1995 - 1995)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 170), Stanford University (1995 - 1995)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 4), Stanford University (1995 - 1995)
- Invited Speaker, Classes without Quizzes, School of Earth Sciences, Stanford University (1995 - 1995)
- Invited Speaker, Department of Civil Engineering, Stanford University (1995 - 1995)
- Invited Speaker, Bouyoucos Conference (ASA-CSSA-SSSA), Riverside CA (1995 - 1995)
- Invited Speaker, Department of Geological & Environmental Sciences (GES 231), Stanford University (1995 - 1995)
- Adviser, 72 undergraduate students, School of Earth Sciences, Stanford University (1994 - 2009)
- Affiliate Faculty, Earth Systems Program, Stanford University (1994 - 1999)
- Affiliate Faculty, Urban Studies Program, Stanford University (1994 - 1999)
- Committee Member, Undergraduate Affairs, Department of Geological & Environmental Sciences, Stanford University (1994 - 1994)
- Committee Member, Nomination of Professor Garrison Sposito for 1995 Tyler Prize (1994 - 1994)
- Committee Member, Undergraduate Affairs, Department of Geological & Environmental Sciences, Stanford University (1994 - 1994)
- Invited Panelist, CTY College Colloquium, Mills College, Oakland CA (1994 - 1994)
- Invited Speaker, Department of Civil Engineering, University of Washington @ Seattle (1994 - 1994)
- Invited Speaker, Dpto. De Edafologia y Geologia (several lectures), Universida De La Laguna, Tenerife Island (Canary Islands), Spain (1994 - 1994)

- Invited Speaker, Department of Geological & Environmental Sciences (Journal Club), Stanford University (1994 - 1994)
- Invited Speaker, Department of Civil Engineering, UC Berkeley (1994 - 1994)
- Invited Speaker, Department of Geological and Environmental Sciences (GES 130), Stanford University (1994 - 1994)
- Invited Speaker, Soil Science Society of America Annual Meeting, Seattle WA (1994 - 1994)
- Invited Speaker, Department of Civil Engineering (Geotechnical Group), UC Berkeley (1994 - 1994)
- Sustainable Agriculture Mission, Havana, Cuba (1994 - 1994)
- Member, Committee on Computer Operations and Communication, Department of Soil Science, UC Berkeley (1993 - 1994)
- Member, Advisory Committee RB Gump South Pacific Biological Station, UC Berkeley (1993 - 1994)
- Invited Panelist, CTY Environmental Days, UC Berkeley (1993 - 1993)
- Invited Speaker, Parker Mission (sponsored by Hokkaido River Disaster Prevention Research Center, Sapporo, Japan): Civil Engineering Research Institute, Sapporo; Department of Civil Engineering, Hokkaido University; Department of Civil Engineering, Tokyo Institute of Technology; Environmental Research Center, Tsukuba University; Disaster Prevention Research Institute, Kyoto University (1993 - 1993)
- Invited Speaker, Department of Geology & Geophysics (Geology 3), UC Berkeley (1993 - 1993)
- Invited Speaker, Department of Biology (IDS I58), UC Berkeley (1993 - 1993)
- Invited Speaker, Range Ecology Seminar (FRM 244), UC Berkeley (1993 - 1993)
- Invited Speaker, Department of Civil Engineering (CE 173), UC Berkeley (1993 - 1993)
- Invited Speaker, Department of Geology & Geophysics (Geology 117), UC Berkeley (1993 - 1993)
- Invited Speaker, Department of Geography, University of Hawaii @ Manoa (1993 - 1993)
- Invited Speaker, Department of Applied Earth Sciences, Stanford University (1993 - 1993)
- Invited Speaker, Department of Geology & Geophysics, UC Berkeley (1993 - 1993)
- Invited Speaker, Pesticide Applicators Professional Association, Petaluma CA (1993 - 1993)
- Member, Committee for Recommendation on AEC Merit Increases and Promotions, UC Berkeley (1993 - 1993)
- Member, Peer Review Panels for Waste-Management Education and DOE Research Consortium research proposals, Albuquerque NM (1993 - 1993)
- Participant, Open House Program, UC Berkeley (1993 - 1993)
- Chairman, AGU Horton Research Grant Selection Committee (1992 - 1992)
- Contributor, USDA Western Regional Project W-82, Oahu HI (1992 - 1992)
- Contributor, USDA Western Regional Project W-155, Oahu HI (1992 - 1992)
- Contributor, AGU Fall Meeting, San Francisco CA (1992 - 1992)
- Host, WSTB meeting & field trip, Oahu HI (1992 - 1992)
- Invited Speaker, Department of Geology and Geophysics, UC Berkeley (1992 - 1992)
- Invited Speaker, Department of Civil Engineering, UC Berkeley (1992 - 1992)
- Member, Peer Review Panel for USDA Water Quality Research Program research proposals, Washington DC (1992 - 1992)
- Member, USDA Western Regional Project W-155 (1991 - 1994)
- Member, USDA Western Regional Project W-82 (1991 - 1994)
- Member, Liaison Committee for USGS Comprehensive National Water Quality Assessment Program, Sacramento CA (1991 - 1994)
- Selection Committee, Horton Research Grant, American Geophysical Union (1991 - 1992)
- Finisher, Honolulu Marathon (1991 - 1991)
- Host, annual meeting, USDA Western Regional Project W-82, UC Berkeley (1991 - 1991)
- Invited Speaker, Department of Civil Engineering, Colorado State University @ Fort Collins (1991 - 1991)
- Invited Speaker, Department of Applied Earth Sciences, Stanford University (1991 - 1991)

- Invited Speaker, Ecotoxicology Program, UC Davis (1991 - 1991)
- Invited Speaker, U.S. Geological Survey Conference, Monterey CA (1991 - 1991)
- Invited Speaker, Presidential Water Quality Initiative (USDA), Washington DC (1991 - 1991)
- Invited Speaker, Department of Land, Air & Water Resources, UC Davis (1991 - 1991)
- Associate Editor, Journal of Contaminant Hydrology (1990 - 1997)
- Member, Interdisciplinary Hydrology Committee, UC Berkeley (1990 - 1994)
- Committee Member, Techniques for Assessing Groundwater Vulnerability, National Research Council, WSTB (Washington DC, Fresno CA, Cape Cod MA, & Turtle Bay Kahuku HI) (1990 - 1992)
- Contributor, AGU Fall Meeting, San Francisco CA (1990 - 1990)
- Interviewee (untenured faculty group), "Western Association of Schools & Colleges" (accreditation), UC Berkeley (1990 - 1990)
- Invited Speaker, 14th International Congress of Soil Science, Kyoto, Japan (1990 - 1990)
- Invited Speaker, Pesticide Officials Pilot Program, UC Davis (1990 - 1990)
- Invited Speaker, Computational Hydrology Institute, Irvine CA (1990 - 1990)
- Invited Speaker, Department of Soil Science (SS 100), UC Berkeley (1990 - 1990)
- Invited Speaker, Industrial Liaison Program, UC Berkeley (1990 - 1990)
- Invited Speaker, Department of Soil & Environmental Science, UC Riverside (1990 - 1990)
- Member, Committee on Teaching Laboratories, Department of Soil Science, UC Berkeley (1990 - 1990)
- Affiliate Faculty, Energy & Resources Group, UC Berkeley (1989 - 1991)
- Affiliate Faculty,, Department of Agronomy & Soil Science, University of Hawaii @ Manoa (1989 - 1991)
- Member, Courses and Curricula Committee, College of Natural Resources, UC Berkeley (1989 - 1991)
- Member, AGU Committee on "Erosion and Sedimentation (1989 - 1990)
- Committee Member, Develop duties for Spectroscopist position, Department of Soil Science, UC Berkeley (1989 - 1989)
- Committee Member, Nomination of Professor Hans Jenny for 1990 Tyler Prize (1989 - 1989)
- Committee Member, Nomination of Professor Wilford Gardner for 1990 Alexander von Humboldt Award (1989 - 1989)
- Contributor, AGU Chapman Conference, Bar Harbor ME (1989 - 1989)
- Contributor, AGU Fall Meeting, San Francisco CA (1989 - 1989)
- Contributor, Soil Users Group, Honolulu HI (1989 - 1989)
- Invited Speaker, Workshop on Field-Scale Water & Solute Flux in Soils, Ascona, Switzerland (1989 - 1989)
- Invited Speaker, Department of Geology, San Jose State University (1989 - 1989)
- Invited Speaker, Earth Sciences Division, Lawrence Berkeley Laboratory (1989 - 1989)
- Invited Speaker, Department of Soil Science, UC Berkeley (1989 - 1989)
- Invited Speaker, Water Resources Division, U.S. Geological Survey, Menlo Park (1989 - 1989)
- Invited Speaker, Department of Landscape Architecture (LL 200), UC Berkeley (1989 - 1989)
- Invited Speaker, California Department of Food & Agriculture, Sacramento (1989 - 1989)
- Member, Committee to develop Soil Physics position, Department of Soil Science, UC Berkeley (1989 - 1989)
- Participant, Pesticides Branch Workshop, Hawaii State Department of Agriculture, Honolulu (1989 - 1989)
- Session Chairperson, AGU Spring Meeting, San Francisco CA (1989 - 1989)
- Reading Committees, 5 MS students, UC Berkeley (1988 - 1994)
- Reading Committees, 3 PhD students, UC Berkeley (1988 - 1994)
- Computer Coordinator, Department of Soil Science, UC Berkeley (1988 - 1991)

- Contributor, USDA Western Regional Project W-82, St. Paul, MN (1988 - 1988)
- Contributor, WRRRC Conference, Honolulu HI (1988 - 1988)
- Contributor, AGU Fall Meeting (1988 - 1988)
- Contributor, ASAE Symposium, Chicago IL (1988 - 1988)
- Invited Speaker, Water Quality Methodology Workshop (USDA-ARS), Arlington VA (1988 - 1988)
- Invited Speaker, Philip Williams & Associates, San Francisco CA (1988 - 1988)
- Hydrologist, Water Resources Research Center, University of Hawaii @ Manoa (1987 - 1988)
- Member, Admissions Committee, Department of Geology & Geophysics, University of Hawaii @ Manoa (1987 - 1988)
- Contributor, International Conference on Infiltration Development & Application, Honolulu HI (1987 - 1987)
- Contributor, AGU Fall Meeting, San Francisco CA (1987 - 1987)
- Contributor, AGU Spring Meeting, Baltimore MD (1987 - 1987)
- Invited Speaker, Department of Plant & Soil Biology, UC Berkeley (1987 - 1987)
- Invited Speaker, Department of Geography (G 405), University of Hawaii @ Manoa (1987 - 1987)
- Invited Speaker, Department of Geography, UC Santa Barbara (1987 - 1987)
- Invited Speaker, Desert Research Institute, Reno, NV (1987 - 1987)
- Invited Speaker, Desert Research Institute, Las Vegas, NV (1987 - 1987)
- Invited Speaker, Department of Environmental Sciences, University of Virginia (1987 - 1987)
- Invited Speaker, Earth Sciences Department, Lawrence Livermore National Laboratory (1987 - 1987)
- Invited Speaker, Department of Geology, University of South Carolina (1987 - 1987)
- Participant, Pesticides Branch Workshop, Hawaii State Department of Agriculture, Honolulu (1987 - 1987)
- Extramural Funding, \$3,347,547 - sources include: Center for Water & Wildland Resources (UC Davis), Ecotoxicology Program (UC Berkeley), Kearney Foundation of Soil Science, McIntire Stennis Project, National Science Foundation, UPS Endowment Fund, US Geological Survey, Water Resources Research Center (Guam), Western Region Hazardous Substance Research Center, Western Regional Project (W-82), & Western Regional Project (W-155) (1986 - 2014)
- Contributor, AGU Fall Meeting, San Francisco CA (1986 - 1986)
- Contributor, annual meeting, USDA Western Regional Project W-82, Kahului, Maui (1986 - 1986)
- Invited Speaker, Department of Soil Science, University of Hawaii @ Manoa (1986 - 1986)
- Invited Speaker, Department of Agronomy and Soil Science (AS 304), University of Hawaii @ Manoa (1986 - 1986)
- Invited Speaker, Department of Agronomy & Soil Science (AS 600), University of Hawaii @ Manoa (1986 - 1986)
- Consultant / Expert Witness, w) a "boat load" of lawyers (1985 - 2005)
- Participant, Hydrology Representative to the Graduate Work Committee, Department of Geology and Geophysics, University of Hawaii @ Manoa (1985 - 1988)
- Reading Committees, 5 MS students, University of Hawaii @ Manoa (1985 - 1988)
- Reading Committees, 2 PhD students, University of Hawaii @ Manoa (1985 - 1988)
- Soil Scientist, Department of Agronomy & Soil Science, University of Hawaii @ Manoa (1985 - 1987)
- Hydrogeologist, Dames & Moore, Honolulu HI (1985 - 1985)
- Invited Reviewer, 505 reviews (e.g., manuscripts, proposals, promotions) (1984 - 2017)
- Agricultural Research Service, USDA, Visiting Scientist, Chickasaw, OK (1984 - 1984)
- Invited Speaker, American Geophysical Union Spring Meeting (Hydrology Section), Cincinnati OH (1984 - 1984)
- Contributor, WMO Technical Conference, Sacramento CA (1983 - 1983)
- Department of Civil Engineering, Visiting Student, University of Washington @ Seattle (1983 - 1983)
- Research Assistantship, Department of Geological Sciences, University of British Columbia @ Vancouver (1981 - 1985)

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- Department of Earth Sciences, Groundwater Field School, University of Waterloo @ Ontario (1981 - 1981)
  - Teaching Assistant, "Groundwater Hydrology", University of British Columbia @ Vancouver (1981 - 1981)
  - Teaching Assistant, "Physical Behavior of Soils (Soil Physics)", University of British Columbia @ Vancouver (1981 - 1981)
  - Graduate Student, University of British Columbia @ Vancouver (1980 - 1986)
  - Hydrologist, Bureau of Land Management (USDI), Idaho Falls District ID (1980 - 1980)
  - Teaching Assistant, "Introduction to Soil Science", University of British Columbia @ Vancouver (1980 - 1980)
  - Green Chain, Crown Zellerback, Lincoln WA (1979 - 1979)
  - Welder, Calkins Manufacturing Company, Spokane WA (1978 - 1979)
  - Airborne School, US Army, Fort Bending, GA (1978 - 1978)
  - Gopher, Veterans Administration Hospital (Neurology), Ann Arbor MI (1978 - 1978)
  - Graduate Student, Department of Civil Engineering, University of Michigan @ Ann Arbor (1978 - 1978)
  - Ranger School, US Army, Fort Bending, GA (1978 - 1978)
  - Stock, Allied Auto Parts, Royal Oak MI (1978 - 1978)
  - Army ROTC, University of Michigan @ Ann Arbor (1977 - 1978)
  - Undergraduate Student, School of Natural Resources, University of Michigan @ Ann Arbor (1977 - 1978)
  - Hot Inspector, Lynch Road Forge, Chrysler Corporation, Detroit MI (1977 - 1977)
  - Army ROTC, Colorado State University @ Fort Collins (1976 - 1977)
  - Undergraduate Student, Department of Earth Resources, Colorado State University @ Fort Collins (1976 - 1977)
  - Gopher, Fort Lewis College Post Office, Durango CO (1975 - 1976)
  - Janitor, Mercy Medical Center, Durango CO (1975 - 1973)
  - Education Benefits, GI Bill (US Army) (1974 - 1978)
  - Undergraduate Student, Fort Lewis College, Durango, CO (1974 - 1976)
  - Hot Inspector, Lynch Road Forge, Chrysler Corporation, Detroit MI (1973 - 1974)
  - Honorable Discharge, US Army (1973 - 1973)
  - Project Transition (US Army), Welding [wire (MIG) & stick (SMAW)], Fort Carson CO (1973 - 1973)
  - Student, El Paso Community College, Colorado Springs CO (1972 - 1973)
  - Student, Armstrong State College, Savannah GA (1971 - 1971)
  - Helicopter Crew Chief, US Army (1970 - 1973)
  - Basic Training, US Army, Fort Knox KY (1970 - 1970)
  - City Commissioner, Student Government Day, Royal Oak MI (1970 - 1970)
  - Co-Captain Track Team (4 yrs varsity), Dondero High School, Royal Oak MI (1970 - 1970)
  - Physical Training Champion, US Army Basic Training, Fort Knox KY (1970 - 1970)
  - Transportation School, Helicopter Mechanic [67Y20 / AH-1G (snake)], US Army, Fort Eustis VA (1970 - 1970)
  - Memberships (all past), American Geophysical Union, American Water Resources Association, Berkeley Faculty Club, Big Brothers of America, Boy Scouts of America, Cub Scouts, Floodplain Management Association, Geological Society of America, International Association of Hydrogeologists, International Brotherhood of Teamsters, National Geographic Society, National Ground Water Association, Natural Resources Defense Council, Sierra Club, Soil Science Society of America, Stanford Faculty Club, The Nature Conservancy, United Auto Workers, United Brotherhood of Carpenters and Joiners, University of Michigan Alumni Association [life], & Veterans of Foreign Wars [life] (1969 - present)
  - Vice President, Varsity Club, Dondero High School, Royal Oak MI (1969 - 1970)
  - Captain & MVP Cross Country Team (3 yrs varsity), Dondero High School, Royal Oak MI (1969 - 1969)
  - League & Regional Champions / 8th in State, Cross Country "Team", Dondero High School, Royal Oak MI (1969 - 1969)

- Steel Cutter, Lynch Road Forge, Chrysler Corporation, Detroit MI (1969 - 1969)
- Vocational Auto Shop, Dondero High School, Royal Oak MI (1968 - 1969)
- Dondero High School (graduate), Royal Oak MI (1966 - 1970)
- Junior Varsity Wrestling team, Dondero High School, Royal Oak MI (1966 - 1967)
- Keller Junior High School, Royal Oak MI (1966 - 1964)
- Football & Track teams, Keller Junior High School, Royal Oak MI (1965 - 1966)
- Delivery, Royal Oak Tribune & Detroit Free Press, Royal Oak MI (1964 - 1969)
- Music, Piano Accordion (120/41) (1963 - 1965)
- Safety Patrol (Lieutenant), Lockman Elementary School, Royal Oak MI (1963 - 1964)
- Lockman Elementary School, Royal Oak MI (1960 - 1964)
- Dresden Elementary School, Utica MI (1958 - 1960)
- Elementary Schools, Pontiac & Hazel Park. MI (1956 - 1958)
- BD, Kamehameha Day (1951 - 1951)

## PROFESSIONAL EDUCATION

- PhD, University of British Columbia @ Vancouver , Interdisciplinary Studies (Hydrology) - advisor: R. Allan Freeze (1986)
- MSc, University of British Columbia @ Vancouver , Geological Sciences (Hydrogeology) - advisor: R. Allan Freeze (1982)
- BS, University of Michigan @ Ann Arbor , Natural Resources (1978)

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

RESEARCH (see PUBLICATIONS), 1980-2017

Process-based characterizations of surface & near-surface hydrologic response, based upon comprehensive field observations and sophisticated numerical simulations.

\* Group Members (with degrees earned): John Griggs - PhD, Jennifer Kleveno - MS, Robert Miyahira - MS, Ephraim Leon-Guerrero - MS, Domingo Molina - MS, Robert Abrams - MS, Ricardo Diaz-Diaz - Post Doctoral Fellow, Erik Wahlstrom - MS, Robert Abrams - PhD, Robert Abrams - Post Doctoral Fellow, Jim Blanke - MS CoTerm, Anona Dutton - MS CoTerm, D'Artagnan Lloyd - MS, Melissa Mills - MS, Edzer Pebesma - Visiting Scholar, Iris Stewart - PhD, Luis Ugalde - MS, Joel VanderKwaak - Post Doctoral Fellow, Dennis Corwin - Visiting Scholar, Leigh Soutter - PhD, Robert Abrams - Research Associate, Qihua Ran - MS, Lauren Benson - MS CoTerm, Qihua Ran - PhD, Adrienne Carr - PhD, Christopher Heppner - PhD, Susan BeVille - MS CoTerm, Brian Ebel - PhD, Brian Ebel - Post Doctoral Fellow, Benjamin Mirus - PhD, Mollie Pettit - MS, Kristin Mayer - MS, Matthew Thomas - PhD, & Matthew Thomas - Post Doctoral Fellow

\* Invited Reviews, requested by: Academic Press, Advances in Environmental Research, Advances in Water Resources, American Geophysical Union, Hydraulic Engineering, Hydrologic Engineering, Cambridge University Press, Earth & Planetary Science Letters, Ecohydrology, Engineering Geology, Environmental & Engineering Geoscience, Environmental Earth Sciences, Environmental Geology, Environmental Fluid Mechanics, Environmental Science & Technology, Geoderma, Geophysical Research Letters, Hydrogeology, Hydrological Processes, Contaminant Hydrology, Environmental Quality, Geophysical Research - Earth Surface, Natural Hazards, National Aeronautics & Space Administration, National Geographic Society, National Science Foundation, National Sciences & Engineering Research Council of Canada, Numerical Methods for Partial Differential Equations, Oxford University Press, Proceedings of the National Academy of Sciences, Remote Sensing of Environment, Reviews in Geophysics, Science, USDA Water Quality Research Program, USGS National Institutes for Water Resources , US State Department (Science Center), Soil Science Society of America, Vadoze Zone, Water Resources Center (California), Water Resources Research, Water Resources Research Center (Hawaii), & 37 more journals/agencies

TEACHING (courses taught, repeatedly; 89 total), 1985-2017



- \* University of Hawaii @ Manoa, 1985-1988 (~ 1,000 days): GG455 Groundwater Geology, GG654 Groundwater Contamination, GG655 Groundwater Modeling, & GG656 Transport Modeling
- \* University of California @ Berkeley, 1988-1994 (2,222 days): FRM109 Wildland Hydrology, SS150 Soil Hydrology, Soil Science Seminar, SS250 Vadose Zone Modeling, & SS251 Hillslope Hydrology
- \* Leland Stanford Junior University, 1994-2017 (8,431 days): GES-43Q Environmental Problems, GES-130 Environmental Earth Sciences I, GES-131 Environmental Earth Sciences II, GES-130 Soil Physics and Hydrology, GES-131 Hydrologically-Driven Landscape Evolution, GES-140 Geomorphology, GES-230 Hydrogeology, GES-332b Seminar in Hydrogeology, GES-237 Surface and Near-Surface Hydrologic Response, GES-238 Soil Physics, & GES-239 Advanced Geomorphology
- SERVICE (US Army - enlisted - 1,096 days active duty), 1970-1973
- \* Stateside: Fort Wayne MI, Fort Knox KY (D-12-5 "tigers one and all"), Fort Eustis VA, Fort Stewart GA, Hunter Army Airfield GA, Treasure Island CA, & Fort Carson CO
- \* Vietnam (volunteer - 328 days "in country"): "breathing in" Saigon / Tan Son Nhut AB (via Travis AFB, Alaska, & Yokota AFB), Vung Tau, 611th Trans Company 1st Aviation Brigade @ Vien Long Army Airfield ("Delta Riggers" - crew chief, Tailboard 336 [67N20 / UH-1H (slick)], door gunner, & rigger), Can Tho Army Airfield, F Troop 1st Cavalry Division @ Bien Hoa Air Base (Army side), & "breathing out" Saigon / Tan Son Nhut AB (to Travis AFB)

## Publications

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### PUBLICATIONS

- **Landscape Change as Recorded by the Ocean Shore Railroad** *ENVIRONMENTAL & ENGINEERING GEOSCIENCE*  
Thomas, M. A., Loague, K.  
2016; 22 (3): 209-223
- **Finite-element modelling of physics-based hillslope hydrology, Keith Beven, and beyond** *HYDROLOGICAL PROCESSES*  
Loague, K., Ebel, B. A.  
2016; 30 (14): 2432-2437
- **Erratum to " Impact of uncertainty in soil, climatic, and chemical information in a pesticide leaching assessment"** *Journal of Contaminant Hydrology*  
Loague, K., Green, R. E., Giambelluca, T. W., Liang, T. C., Yost, R. S.  
2016; 194: 59-72
- **Fluid pressure responses for a Devil's Slide-like system: problem formulation and simulation** *HYDROLOGICAL PROCESSES*  
Thomas, M. A., Loague, K., Voss, C. I.  
2015; 29 (6): 1450-1465
- **Hydrogeologic insights for a Devil's Slide-like system** *WATER RESOURCES RESEARCH*  
Thomas, M. A., Loague, K.  
2014; 50 (8): 6628-6645
- **Retreat of a Coastal Bluff in Pacifica, California** *ENVIRONMENTAL & ENGINEERING GEOSCIENCE*  
Pettit, M. M., Thomas, M. A., Loague, K.  
2014; 20 (2): 153-162
- **Devil's Slide: An Evolving Feature of California's Coastal Landscape** *ENVIRONMENTAL & ENGINEERING GEOSCIENCE*  
Thomas, M. A., Loague, K.  
2014; 20 (1): 45-65
- **Hydrologic-response simulations for the North Fork of Caspar Creek: second-growth, clear-cut, new-growth, and cumulative watershed effect scenarios** *HYDROLOGICAL PROCESSES*  
Carr, A. E., Loague, K., VanderKwaak, J. E.  
2014; 28 (3): 1476-1494
- **How runoff begins ( and ends): Characterizing hydrologic response at the catchment scale** *WATER RESOURCES RESEARCH*  
Mirus, B. B., Loague, K.

2013; 49 (5): 2987-3006

- **Conceptualization in catchment modeling** *Treatise on Geomorphology: Mountain and Hillslope Geomorphology*  
Loague, K., Ebel, B. A.  
edited by Stoffel, M., Marston, R.  
Academic Press.2013; Volume 7: 105–121
- **Data Related Uncertainty in Near-Surface Vulnerability Assessments for Agrochemicals in the San Joaquin Valley** *JOURNAL OF ENVIRONMENTAL QUALITY*  
Loague, K., Blanke, J. S., Mills, M. B., Diaz-Diaz, R., Corwin, D. L.  
2012; 41 (5): 1427-1436
- **Hydrologic-response-driven sediment transport at a regional scale, process-based simulation** *HYDROLOGICAL PROCESSES*  
Ran, Q., Loague, K., VanderKwaak, J. E.  
2012; 26 (2): 159-167
- **Physics-based simulations of the impacts forest management practices have on hydrologic response** *Coast Redwood Forests in a Changing California: A Symposium for Scientists and Managers, General Technical Report PSW-GTR-238*  
Carr, A., Loague, K.  
edited by Standiford, R. B., Weller, T. J., Piirto, D. D., Stuart, J. D.  
USDA Forest Service, Pacific Southwest Research Station.2012: 31–41
- **A synthetic hydrologic-response dataset** *HYDROLOGICAL PROCESSES*  
Mirus, B. B., Loague, K., Cristea, N. C., Burges, S. J., Kampf, S. K.  
2011; 25 (23): 3688-3692
- **Assessing the detail needed to capture rainfall-runoff dynamics with physics-based hydrologic response simulation** *WATER RESOURCES RESEARCH*  
Mirus, B. B., Ebel, B. A., Heppner, C. S., Loague, K.  
2011; 47
- **Using simulated hydrologic response to revisit the 1973 Lerida Court landslide** *ENVIRONMENTAL EARTH SCIENCES*  
BeVille, S. H., Mirus, B. B., Ebel, B. A., Mader, G. G., Loague, K.  
2010; 61 (6): 1249-1257
- **The impacts of hysteresis on variably saturated hydrologic response and slope failure** *ENVIRONMENTAL EARTH SCIENCES*  
Ebel, B. A., Loague, K., Borja, R. I.  
2010; 61 (6): 1215-1225
- **The quixotic search for a comprehensive understanding of hydrologic response at the surface: Horton, Dunne, Dunton, and the role of concept-development simulation** *HYDROLOGICAL PROCESSES*  
Loague, K., Heppner, C. S., Ebel, B. A., VanderKwaak, J. E.  
2010; 24 (17): 2499-2505
- **Rainfall-Runoff Modelling** *Benchmark Papers in Hydrology*  
edited by Loague, K.  
IAHS Press, 506 pp.2010
- **First-order exchange coefficient coupling for simulating surface water-groundwater interactions: parameter sensitivity and consistency with a physics-based approach** *HYDROLOGICAL PROCESSES*  
Ebel, B. A., Mirus, B. B., Heppner, C. S., VanderKwaak, J. E., Loague, K.  
2009; 23 (13): 1949-1959
- **A hypothetical reality of Tarrawarra-like hydrologic response** *HYDROLOGICAL PROCESSES*  
Mirus, B. B., Loague, K., VanderKwaak, J. E., Kampf, S. K., Burges, S. J.  
2009; 23 (7): 1093-1103
- **A dam problem: simulated upstream impacts for a Searsville-like watershed** *ECOHYDROLOGY*  
Heppner, C. S., Loague, K.  
2008; 1 (4): 408-424

- **Characterizing Long-Term Hydrologic-Response and Sediment-Transport for the R-5 Catchment** *JOURNAL OF ENVIRONMENTAL QUALITY*  
Heppner, C. S., Loague, K.  
2008; 37 (6): 2181-2191
- **Not all water becomes wine: Sulfur inputs as an opportune tracer of hydrochemical losses from vineyards** *WATER RESOURCES RESEARCH*  
Hinckley, E. S., Kendall, C., Loague, K.  
2008; 44
- **Physics-based continuous simulation of long-term near-surface hydrologic response for the Coos Bay experimental catchment** *WATER RESOURCES RESEARCH*  
Ebel, B. A., Loague, K., Montgomery, D. R., Dietrich, W. E.  
2008; 44 (7)
- **Rapid simulated hydrologic response within the variably saturated near surface** *Hydrological Processes*  
Ebel, B. A., Loague, K.  
2008; 22: 464-471
- **Error analysis for the evaluation of model performance: rainfall-runoff event summary variables** *HYDROLOGICAL PROCESSES*  
Pebesma, E. J., Switzer, P., Loague, K.  
2007; 21 (22): 3009-3024
- **Long-term InHM simulations of hydrologic response and sediment transport for the R-5 catchment** *EARTH SURFACE PROCESSES AND LANDFORMS*  
Heppner, C. S., Loague, K., VanderKwaak, J. E.  
2007; 32 (9): 1273-1292
- **Further testing of the integrated hydrology model (InHM): multiple-species sediment transport** *HYDROLOGICAL PROCESSES*  
Ran, Q., Heppner, C. S., VanderKwaak, J. E., Loague, K.  
2007; 21 (11): 1522-1531
- **Near-surface hydrologic response for a steep, unchanneled catchment near coos bay, oregon: 2. physics-based simulations** *AMERICAN JOURNAL OF SCIENCE*  
Ebel, B. A., Loague, K., VanderKwaak, J. E., Dietrich, W. E., Montgomery, D. R., Torres, R., Anderson, S. P.  
2007; 307 (4): 709-748
- **Near-surface hydrologic response for a steep, unchanneled catchment near coos bay, oregon: 1. sprinkling experiments** *AMERICAN JOURNAL OF SCIENCE*  
Ebel, B. A., Loague, K., Dietrich, W. E., Montgomery, D. R., Torres, R., Anderson, S. P., Giambelluca, T. W.  
2007; 307 (4): 678-708
- **Simulated effect of a forest road on near-surface hydrologic response: redux** *EARTH SURFACE PROCESSES AND LANDFORMS*  
Mirus, B. B., Ebel, B. A., Loague, K., Wemple, B. C.  
2007; 32 (1): 126-142
- **Near-surface hydrologic response for a steep, unchanneled catchment near Coos Bay, Oregon: 1 Sprinkling experiments, ERRATA - American Journal of Science**  
Ebel, B. A., Loague, K., Dietrich, W. E., Montgomery, D. R., Torres, R., Anderson, S. P., Giambelluca, T. W.  
2007; 307: 1194-1195
- **Scale issues** *The Handbook of Groundwater Engineering*  
Loague, K., Corwin, D. L.  
edited by Delleur, J. W.  
CRC Press.2007; Second Edition: 25.1–25.21
- **Physics-based hydrologic-response simulation: Seeing through the fog of equifinality** *HYDROLOGICAL PROCESSES*  
Ebel, B. A., Loague, K.  
2006; 20 (13): 2887-2900
- **Adding sediment transport to the integrated hydrology model (InHM): Development and testing** *ADVANCES IN WATER RESOURCES*  
Heppner, C. S., Ran, Q., VanderKwaak, J. E., Loague, K.  
2006; 29 (6): 930-943

- **Physics-based hydrologic-response simulation: foundation for hydroecology and hydrogeomorphology** *HYDROLOGICAL PROCESSES*  
Loague, K., Heppner, C. S., Mirus, B. B., Ebel, B. A., Ran, Q. H., Carr, A. E., BeVile, S. H., VanderKwaak, J. E.  
2006; 20 (5): 1231-1237
- **Desperately seeking a cause for hotspots in regional-scale groundwater plumes resulting from non-point source pesticide applications** *VADOSE ZONE JOURNAL*  
Loague, K., Soutter, L. A.  
2006; 5 (1): 204-221
- **Hydrologically-driven slope failure initiation in variably saturated porous media** *Modern Trends in Geomechanics*  
Borja, R. I., Oettl, G., Ebel, B. A., Loague, K.  
edited by Wu, W., Yu, H. S.  
Springer-Verlag.2006: 303-311
- **Error analysis for the evaluation of model performance: rainfall-runoff event time series data** *HYDROLOGICAL PROCESSES*  
Pebesma, E. J., Switzer, P., Loague, K.  
2005; 19 (8): 1529-1548
- **Further testing of the Integrated Hydrology Model (InHM): event-based simulations for a small rangeland catchment located near Chickasha, Oklahoma** *HYDROLOGICAL PROCESSES*  
Loague, K., Heppner, C. S., Abrams, R. H., Carr, A. E., VanderKwaak, J. E., Ebel, B. A.  
2005; 19 (7): 1373-1398
- **Simulated effect of a forest road on near-surface hydrologic response and slope stability** *EARTH SURFACE PROCESSES AND LANDFORMS*  
Dutton, A. L., Loague, K., Wemple, B. C.  
2005; 30 (3): 325-338
- **Point and nonpoint source pollution** *Encyclopedia of Hydrological Sciences*  
Loague, K., Corwin, D. L.  
edited by Anderson, M. G.  
Wiley & Sons.2005; Volume 3: 1427-1439
- **Groundwater vulnerability to pesticides: An overview of approaches and methods of evaluation** *The Encyclopedia of Water*  
Loague, K., Corwin, D. L.  
edited by Lehr, J. H.  
Wiley & Sons.2005; Volume 5: 594-599
- **Multi-disciplinary assessment of non-point source pollution** *Soil-Water-Solute Process Characterization: An Integrated Approach*  
Corwin, D. L., Loague, K.  
edited by Alvarez-Benedi, J., Munoz-Carpena, R.  
CRC Press.2005: 1-58
- **Modeling non-point source pollutants in the vadose zone using GIS** *The Encyclopedia of Water*  
Corwin, D. L., Loague, K.  
edited by Lehr, J. H.  
Wiley & Sons.2005; Volume 5: 299-305
- **Physics-based hydrologic response simulation: platinum bridge, 1958 Edsel, or useful toot** *HYDROLOGICAL PROCESSES*  
Loague, K., VanderKwaak, J. E.  
2004; 18 (15): 2949-2956
- **Assessing ground water vulnerability with the type transfer function model in the San Joaquin Valley, California** *JOURNAL OF ENVIRONMENTAL QUALITY*  
Stewart, I. T., Loague, K.  
2004; 33 (4): 1487-1498
- **Development of type transfer functions for regional-scale nonpoint source groundwater vulnerability assessments** *WATER RESOURCES RESEARCH*  
Stewart, I. T., Loague, K.  
2003; 39 (12)

- **Simulating hydrological response for the R-5 catchment: comparison of two models and the impact of the roads** *HYDROLOGICAL PROCESSES*  
Loague, K., VanderKwaak, J. E.  
2002; 16 (5): 1015-1032
- **Stochastic-conceptual analysis of near-surface hydrological response** *HYDROLOGICAL PROCESSES*  
Loague, K., Abrams, R. H.  
2001; 15 (14): 2715-2728
- **Assessing the potential for pesticide leaching for the pine forest areas of Tenerife** *ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY*  
Diaz-Diaz, R., Loague, K.  
2001; 20 (9): 1958-1967
- **Hydrologic-response simulations for the R-5 catchment with a comprehensive physics-based model** *WATER RESOURCES RESEARCH*  
VanderKwaak, J. E., Loague, K.  
2001; 37 (4): 999-1013
- **Environmental geochemistry** *The Encyclopedia of Physical Science and Technology*  
Krauskopf, K. B., Loague, K.  
Academic Press.2001; Third Edition: 519-545
- **An interdisciplinary assessment of regional-scale nonpoint source groundwater vulnerability: Theory and application** *Professional Paper Number 1645*  
Bernknopf, R. L., Dinitz, L. B., Loague, K.  
USGS.2001
- **Legacies from three former manufactured-gas plants: impacts on groundwater quality** *HYDROGEOLOGY JOURNAL*  
Abrams, R. H., Loague, K.  
2000; 8 (6): 594-607
- **Revisiting the Fresno DBCP case study simulations: The effect of upscaling** *JOURNAL OF ENVIRONMENTAL QUALITY*  
Soutter, L. A., Loague, K.  
2000; 29 (6): 1794-1805
- **A compartmentalized solute transport model for redox zones in contaminated aquifers 2. Field-scale simulations** *WATER RESOURCES RESEARCH*  
Abrams, R. H., Loague, K.  
2000; 36 (8): 2015-2029
- **Comparison of two pesticide leaching indices** *JOURNAL OF THE AMERICAN WATER RESOURCES ASSOCIATION*  
Diaz-Diaz, R., Loague, K.  
2000; 36 (4): 823-832
- **A compartmentalized solute transport model for redox zones in contaminated aquifers 1. Theory and development** *WATER RESOURCES RESEARCH*  
Abrams, R. H., Loague, K.  
2000; 36 (8): 2001-2013
- **Regional-scale leaching assessments for Tenerife: Effect of data uncertainties** *JOURNAL OF ENVIRONMENTAL QUALITY*  
Diaz-Diaz, R., Loague, K.  
2000; 29 (3): 835-847
- **Fluvial landforms: The Surface of the Earth** *Earth Systems: Processes and Issues*  
Loague, K.  
edited by Ernst, W. G.  
Cambridge University Press.2000: 102-118
- **Uncertainty introduced by upscaling type transfer functions** *Accuracy 2000*  
Stewart, I. T., Loague, K.  
edited by Heuvelink, G., Lemmens, M.  
Delft University Press.2000: 617-624
- **Environmental modeling: The past, the present, and the future** *Accuracy 2000*  
Loague, K.

---

edited by Heuvelink, G., Lemmens, M.  
Delft University Press.2000: 425–432

- **Nonpoint source pollution** *McGraw-Hill Yearbook of Science and Technology 2001*  
Loague, K.  
McGraw-Hill.2000: 273–276
- **Regional-scale assessment of nonpoint source groundwater contamination** *Hydrological Applications of GIS*  
Loague, K., Corwin, D. L.  
edited by Gurnell, A. M., Montgomery, D. R.  
Wiley.2000: 137–145
- **Simulating hydrologic response for the R-5 catchment: A never ending story (Technical Addendum)** *Floodplain Management*  
Loague, K., Gander, G. A., VanderKwaak, J. E., Abrams, R. H., Kyriakidis, P. C.  
2000; 2: 57-64
- **Simulating hydrologic response for the R-5 catchment: A never ending story** *Floodplain Management*  
Loague, K., Gander, G. A., VanderKwaak, J. E., Abrams, R. H., Kyriakidis, P. C.  
2000; 1: 57-83
- **An assessment of agrochemical leaching potentials for Tenerife** *JOURNAL OF CONTAMINANT HYDROLOGY*  
Diaz-Diaz, R., Loague, K., Notario, J. S.  
1999; 36 (1-2): 1-30
- **Estimating a societal value of earth science information in the assessment of nonpoint source pollutants** *Assessment of Non-Point Source Pollution in the Vadose Zone*  
Bernknopf, R. L., Lenkeit, K. A., Dinitz, L. B., Loague, K.  
edited by Corwin, D. L., Loague, K., Ellsworth, T. R.  
AGU Press.1999; Geophysical Monograph 108: 291–308
- **Assessment of Non-Point Source Pollution in the Vadose Zone**  
edited by Corwin, D. L., Loague, K., Ellsworth, T. R.  
American Geophysical Union, 369 pp.1999
- **Hydrologic response: Kaho'olawe, Hawaii** *Journal of Environmental Quality*  
Wahlstrom, E., Loague, K.  
1999; 28: 481-492
- **Elements of Physical Hydrology (review)** *Ground Water*  
Loague, K.  
1999; 37: 327-328
- **Introduction: Assessing non-point source pollution in the vadose zone with advanced information technologies** *Assessment of Non-Point Source Pollution in the Vadose Zone*  
Corwin, D. L., Loague, K., Ellsworth, T. R.  
edited by Corwin, D. L., Loague, K., Ellsworth, T. R.  
AGU Press.1999; Geophysical Monograph 108: 1–20
- **Identifying effective parameters for solute transport models in heterogeneous environments** *Assessment of Non-Point Source Pollution in the Vadose Zone*  
Mayer, S., Ellsworth, T. R., Corwin, D. L., Loague, K.  
edited by Corwin, D. L., Loague, K., Ellsworth, T. R.  
AGU Press.1999; Geophysical Monograph 108: 119–133
- **Are advanced information technologies the solution to NPS pollutant problems?** *Assessment of Non-Point Source Pollution in the Vadose Zone*  
Loague, K., Corwin, D. L., Ellsworth, T. R.  
edited by Corwin, D. L., Loague, K., Ellsworth, T. R.  
AGU Press.1999; Geophysical Monograph 108: 363–369
- **A type transfer function approach for regional-scale pesticide leaching assessments** *Journal of Environmental Quality*  
Stewart, I. T., Loague, K.

- 1999; 28: 378-387
- **DBCP contaminated groundwater: Hot spots and non-point sources** *Journal of Environmental Quality*  
Loague, K., Abrams, R. H.  
1999; 28: 429-445
  - **Advanced information technologies for assessing NPS pollutants in the vadose zone: Conference overview** *Journal of Environmental Quality*  
Corwin, D. L., Loague, K., Ellsworth, T. R.  
1999; 28: 357-365
  - **Unsaturated zone processes and the hydrologic response of a steep, unchanneled catchment** *WATER RESOURCES RESEARCH*  
Torres, R., Dietrich, W. E., Montgomery, D. R., Anderson, S. P., Loague, K.  
1998; 34 (8): 1865-1879
  - **Development and testing of a compartmentalized reaction network model for redox zones in contaminated aquifers** *WATER RESOURCES RESEARCH*  
Abrams, R. H., Loague, K., Kent, D. B.  
1998; 34 (6): 1531-1541
  - **Regional-scale assessment of non-point source groundwater contamination** *HYDROLOGICAL PROCESSES*  
Loague, K., Corwin, D. L.  
1998; 12 (6): 957-965
  - **Leaching potentials of four pesticides used for bananas in the Canary Islands** *JOURNAL OF ENVIRONMENTAL QUALITY*  
Diaz-Diaz, R., Garcia-Hernandez, J. E., Loague, K.  
1998; 27 (3): 562-572
  - **The challenge of predicting nonpoint source pollution** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*  
Loague, K., Corwin, D. L., Ellsworth, T. R.  
1998; 32 (5): 130A-133A
  - **A case study simulation of DBCP groundwater contamination in Fresno County, California - 1. Leaching through the unsaturated subsurface** *JOURNAL OF CONTAMINANT HYDROLOGY*  
Loague, K., LLOYD, D. A., Nguyen, A., Davis, S. N., Abrams, R. H.  
1998; 29 (2): 109-136
  - **Assessing nonpoint source pollution in the vadose zone (Chapman Conference Summary)** *EOS, Transactions American Geophysical Union*  
Corwin, D. L., Loague, K., Ellsworth, T. R.  
1998; 79: 219-220
  - **GIS-based modeling of non-point source pollutants in the vadose zone** *JOURNAL OF SOIL AND WATER CONSERVATION*  
Corwin, D. L., Loague, K., Ellsworth, T. R.  
1998; 53 (1): 34-38
  - **A case study simulation of DBCP groundwater contamination in Fresno County, California - 2. Transport in the saturated subsurface** *JOURNAL OF CONTAMINANT HYDROLOGY*  
Loague, K., Abrams, R. H., Davis, S. N., Nguyen, A., Stewart, I. T.  
1998; 29 (2): 137-163
  - **Subsurface flow paths in a steep, unchanneled catchment** *WATER RESOURCES RESEARCH*  
Anderson, S. P., Dietrich, W. E., Montgomery, D. R., Torres, R., Conrad, M. E., Loague, K.  
1997; 33 (12): 2637-2653
  - **Monitoring nonpoint source pollutants in the vadose zone with GIS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*  
Corwin, D. L., Vaughan, P. J., Loague, K.  
1997; 31 (8): 2157-2175
  - **Concentration-discharge relationships in runoff from a steep, unchanneled catchment** *WATER RESOURCES RESEARCH*  
Anderson, S. P., Dietrich, W. E., Torres, R., Montgomery, D. R., Loague, K.  
1997; 33 (1): 211-225
  - **Searching for physically based runoff model - A hydrologic El Dorado? (discussion)** *Journal of Hydraulic Engineering*

- Loague, K.  
1997; 123: 828-830
- **Spatial and temporal variability in the R-5 infiltration data set: Deja vu and rainfall-runoff simulations** *Water Resources Research*  
Loague, K., Kyriakidis, P. C.  
1997; 33: 2883-2895
  - **Hydrologic response of a steep, unchanneled valley to natural and applied rainfall** *WATER RESOURCES RESEARCH*  
Montgomery, D. R., Dietrich, W. E., Torres, R., Anderson, S. P., Heffner, J. T., Loague, K.  
1997; 33 (1): 91-109
  - **Uncertainty in recharge estimation: Impact on groundwater vulnerability assessments for the Pearl Harbor Basin, O'ahu, Hawai'i, USA** *JOURNAL OF CONTAMINANT HYDROLOGY*  
Giambelluca, T. W., Loague, K., Green, R. E., Nullet, M. A.  
1996; 23 (1-2): 85-112
  - **Uncertainty of groundwater vulnerability assessments for agricultural regions in Hawaii: Review** *JOURNAL OF ENVIRONMENTAL QUALITY*  
Loague, K., Bernknopf, R. L., Green, R. E., Giambelluca, T. W.  
1996; 25 (3): 475-490
  - **Uncertainty in regional-scale assessments of non-point source pollutants** *Applications of GIS to the Modeling of Non-Point Source Pollutants in the Vadose Zone*  
Loague, K., Corwin, D. L.  
edited by Corwin, D. L., Loague, K.  
Soil Science Society of America.1996; Special Publication 48: 131-152
  - **Land misuse and hydrologic response: Kahoolawe, Hawaii** *Pacific Science*  
Loague, K., Lloyd, D., Giambelluca, T. W., Nguyen, A., Sakata, B.  
1996; 50: 1-35
  - **Applications of GIS to the Modeling of Non-Point Source Pollutants in the Vadose Zone**  
edited by Corwin, D. L., Loague, K.  
Soil Science Society of America, 319 pp.1996
  - **CHEMICAL LEACHING NEAR THE WAIAWA SHAFT, OAHU, HAWAII .2. MODELING RESULTS** *GROUND WATER*  
Loague, K., MIYAHIRA, R. N., Green, R. E., Oki, D. S., Giambelluca, T. W., Schneider, R. C.  
1995; 33 (1): 124-138
  - **The impact of data uncertainty upon regional scale leaching assessments of non-point source pollutants** *Bouyoucos Conference, Applications of GIS to the Modeling of Non-Point Source Pollutants in the Vadose Zone*  
Loague, K., Bernknopf, R. L., Giambelluca, T. W., Green, R. E.  
edited by Corwin, D. L.  
ASA-CSSA-SSSA.1995: 494-535
  - **Hawaii Soil Database for Organic Chemical Leaching Assessment** *Research Extension Series 153*  
Yost, R. S., Loague, K., Nakamura, S., Green, R. E., Chromec, F. W., Liang, T. C.  
Hawaii Institute of Tropical Agriculture and Human Resources.1995
  - **CHEMICAL LEACHING NEAR THE WAIAWA SHAFT, OAHU, HAWAII .1. FIELD EXPERIMENTS AND LABORATORY ANALYSIS** *GROUND WATER*  
Loague, K., MIYAHIRA, R. N., Oki, D. S., Green, R. E., Schneider, R. C., Giambelluca, T. W.  
1994; 32 (6): 986-996
  - **Regional scale ground water vulnerability estimates: Impact of reducing data uncertainties for assessments in Hawaii** *Ground Water*  
Loague, K.  
1994; 32: 605-616
  - **WELLHEAD TREATMENT COSTS FOR GROUNDWATER CONTAMINATED WITH PESTICIDES - A PRELIMINARY-ANALYSIS FOR PINEAPPLE IN HAWAII** *ENVIRONMENTAL MANAGEMENT*  
LEONGUERRERO, E. D., Loague, K., Green, R. E.



1994; 18 (1): 93-104

- **A CASE FOR GEOCHEMICAL CONTROL OF CONCENTRATION DISCHARGE RELATIONSHIPS** *3RD INTERNATIONAL SYMP ON THE GEOCHEMISTRY OF THE EARTH SURFACES*  
Anderson, S. P., Dietrich, W. E., Torres, R., Montgomery, D. R., Loague, K.  
ELSEVIER SCIENCE BV.1993: 369-71
- **REDUCING VARIANCE IN SOIL ORGANIC-CARBON ESTIMATES - SOIL CLASSIFICATION AND GEOSTATISTICAL APPROACHES** *GEODERMA*  
Yost, R., Loague, K., Green, R.  
1993; 57 (3): 247-262
- **EVALUATION OF A PESTICIDE MOBILITY INDEX - IMPACT OF RECHARGE VARIATION AND SOIL-PROFILE HETEROGENEITY** *JOURNAL OF CONTAMINANT HYDROLOGY*  
KLEVENO, J. J., Loague, K., Green, R. E.  
1992; 11 (1-2): 83-99
- **Terrain-based catchment partitioning and runoff prediction using vector based elevation data (comments)** *Water Resources Research*  
Loague, K.  
1992; 28: 1741-1744
- **Soil-water content at R-5: 2. Impact of antecedent conditions on rainfall-runoff simulations** *Journal of Hydrology*  
Loague, K.  
1992; 139: 253-261
- **Soil-water content at R-5: 1 Spatial and temporal variability** *Journal of Hydrology*  
Loague, K.  
1992; 139: 233-251
- **Impact of overland flow plane characterization on event simulations with a quasi-physically based model** *Water Resources Research*  
Loague, K.  
1992; 28: 2541-2545
- **Using soil texture to estimate saturated hydraulic conductivity and the impact on rainfall-runoff simulations** *Water Resources Bulletin*  
Loague, K.  
1992; 28: 687-693
- **Simulation of organic chemical movement in Hawaii soils with PRZM: 3 Calibration** *Pacific Science*  
Loague, K.  
1992; 46: 353-373
- **Simulation of Solute Transport in Heterogeneous Soils, Volume II: Numerical Experiments** *Special Report 06.30:91(II)*  
Liu, C. C., Loague, K., Azimi-Zonooz, A., Feng, J.  
Water Resources Research Center, University of Hawaii..1991
- **Simulation of Solute Transport in Heterogeneous Soils, Volume I: Conjunctive Application of Physically Based and System Modeling Approaches** *Special Report 06.30:91(I)*  
Liu, C. C., Loague, K., Chen, W., Feng, J., Huang, Q.  
Water Resources Research Center, University of Hawaii..1991
- **Statistical and graphical methods for evaluating solute transport models: Overview and application** *Journal of Contaminant Hydrology*  
Loague, K., Green, R. E.  
1991; 7: 51-73
- **The impact of land use on estimates of pesticide leaching potential: Assessments and uncertainties** *Journal of Contaminant Hydrology*  
Loague, K.  
1991; 8: 157-175
- **Space-time tradeoffs across the hydrologic data sets of competing rainfall-runoff models: A preliminary Analysis** *Water Resources Bulletin*  
Loague, K.  
1991; 27: 781-789

- **Fluid flow and solute transport processes in unsaturated heterogeneous soils: Preliminary numerical experiments** *Journal of Contaminant Hydrology*  
Liu, C. C., Loague, K., Feng, J.  
1991; 7: 261-283
- **Evaluation of Single and Multi-Parameter Methods for Estimating Soil-Water Characteristic Curves** *Report No. UCB/GT/91-07*  
Or, D., Groeneveld, D. P., Loague, K., Rubin, Y.  
Department of Civil Engineering, University of California, Berkeley.1991
- **Changing ideas in hydrology - The case of physically based models (comments)** *Journal of Hydrology*  
Loague, K.  
1990; 120: 405-407
- **CRITERIA FOR EVALUATING PESTICIDE LEACHING MODELS** *WORKSHOP ON FIELD-SCALE WATER AND SOLUTE FLUX IN SOILS*  
Loague, K., Green, R. E.  
BIRKHAUSER VERLAG.1990: 175-207
- **Impact of uncertainty in soil, climatic, and chemical information in a pesticide leaching assessment** *Journal of Contaminant Hydrology*  
Loague, K., Green, R., Giambelluca, T. W., Liang, T. C., Yost, R.  
1990; 5 (4): 405, 171-194
- **Uncertainty in areal estimates of pesticide leaching potential** *14th International Congress of Soil Science*  
Loague, K., Green, R. E.  
International Soil Science Society.1990: 162-167
- **Impact of uncertainty in soil, climatic, and chemical information in a pesticide leaching assessment** *Journal of Contaminant Hydrology*  
Loague, K., Green, R. E., Giambelluca, T. W., Lian, T. C., Yost, R. S.  
1990; 5 (2): 171-194
- **Mapping pesticide contamination potential (comments)** *Environmental Management*  
Loague, K., Green, R. E.  
1990; 14: 149-150
- **R-5 revisited: 1. Spatial variability of infiltration on a small rangeland catchment** *Water Resources Research*  
Loague, K., Gander, G. A.  
1990; 26: 957-971
- **Simple design for simultaneous steady-state infiltration experiments with single ring infiltrometers** *Water Resources Bulletin*  
Loague, K.  
1990; 26: 935-938
- **R-5 revisited: 2. Re-evaluation of a quasi-physically based rainfall-runoff model with supplemental information** *Water Resources Research*  
Loague, K.  
1990; 26: 973-987
- **Uncertainty in a pesticide leaching assessment for Hawaii** *Journal of Contaminant Hydrology*  
Loague, K., Yost, R. S., Green, R. E., Liang, T. C.  
1989; 4: 139-161
- **Simulation of organic chemical movement in Hawaii soils with PRZM: 1. Preliminary results for Ethylene Dibromide** *Pacific Science*  
Loague, K., Green, R. E., Liu, C. C., Liang, T. C.  
1989; 43: 67-95
- **Simulation of organic chemical movement in Hawaii soils with PRZM: 2. Predicting deep penetration of DBCP, EDB, and TCP** *Pacific Science*  
Loague, K., Giambelluca, T. W., Green, R. E., Liu, C. C., Liang, T. C., Oki, D. S.  
1989; 43: 362-383
- **Impact of rainfall and soil hydraulic property information on runoff predictions at the hillslope scale** *Water Resources Research*  
Loague, K. M.  
1988; 24: 1501-1510

- **Evaluation of mathematical models of solute migration and transformation: An overview and an example** *International Conference and Workshop on Validation of Flow and Transport Models for the Unsaturated Zone*  
Loague, K. M., Green, R. E., Mulkey, L. A.  
College of Agriculture and Home Economics, New Mexico State University.1988: 231–248
- **Streamflow generation: Equally likely realizations of a single stochastic process** *International Symposium on Modeling Agricultural, Forest, and Rangeland Hydrology*  
Loague, K. M.  
American Society of Agricultural Engineers.1988: 420–426
- **Impact of data-related uncertainties in a pesticide leaching assessment** *Methods for Ground Water Quality Studies*  
Loague, K. M., Green, R. E., Nelson, D. W., Dowdy, R. H.  
Agricultural Research Division, University of Nebraska.,1988: 98–119
- **Assessment of pesticide leaching using soil survey and taxonomy** *International Interactive Workshop on Soil Resources: Their inventory, analysis, and interpretation for use in the 1990's*  
Green, R. E., Loague, K. M., Yost, R. S.  
Minnesota Extension Service, University of Minnesota.1988: 204–218
- **Hydrogeologic characteristics of subsoil and saprolite and its relation to contaminant transport, Central O'ahu, Hawaii** *Technical Report No. 178*  
Miller, E. M., Green, R. E., Peterson, F. L., Jones, R. C., Loague, K.  
Water Resources Research Center, University of Hawaii.1988
- **A stochastic-conceptual analysis of rainfall-runoff processes on a hillslope (correction)** *Water Resources Research*  
Loague, K. M., Freeze, R. A.  
1988; 24: 630-632
- **Organic contamination of Oahu groundwater** *Technical Report No. 181*  
Lau, L. S., Buxton, D. S., Fujioka, R. S., Gee, H. K., Giambelluca, T. W., Green, R. E., Loague, K. M., Miller, M. M., Mink, J. F., Murabayashi, E. T., Oki, D. S., Or, S., Peterson, et al  
Water Resources Research Center, University of Hawaii.1987
- **A comparison of rainfall-runoff modeling techniques on small upland catchments** *Water Resources Research*  
Loague, K. M., Freeze, R. A.  
1985; 21: 229-248
- **The hydrological basis for river forecasting: A comparison of rainfall-runoff modeling techniques** *Mitigation of Natural Hazards through Real-Time Data Collection Systems and Hydrological Forecasting*  
Loague, K. M., Freeze, R. A., Lettenmaier, D. P., Burges, S. J.  
WMO.1983: 38 pages
- **Water management program for the Idaho Falls Division of Resources, Idaho Falls District Office**  
Loague, K. M.  
Bureau of Land Management, Idaho Falls, ID.1980