

Conference Program
AGU Hydrology Days 2004
March 10 - March 12, 2004

Urban Hydrology - Cherokee Park Room

The Effect of Stormwater Controls on Sediment Transport in Urban Streams

Christine A. Rohrer, P.E.
Master's Candidate, Department of Civil Engineering, Colorado State University, Fort Collins

Larry A. Roesner, PhD, P.E.
Department of Civil Engineering, Colorado State University, Fort Collins

Implementing residential greywater reuse as a viable option for sustaining the urban water supply.

Christine Marjoram
Urban Water Infrastructure Laboratory, Civil Engineering Department, Colorado State University, Fort Collins

Larry A. Roesner, P.E.
Civil Engineering Department, Colorado State University, Fort Collins

Preliminary Analysis of Early Operation at the Udall Extended Detention Natural Area in Fort Collins, Colorado

Jeremiah Knuth
Environmental Engineering Division, Civil Engineering Department, Colorado State University, Fort Collins

Kevin McBride P.E.
Water Quality Group, Stormwater Division, Utilities Department, City of Fort Collins, Fort Collins

Water Use Study of CSU's Foothills Campus

Melanie Criswell, M.S. Candidate. Environmental Engineering, Civil Engineering Department, Colorado State University, Fort Collins

Larry A. Roesner. Environmental Engineering, Civil Engineering Department, Colorado State University, Fort Collins

Studying of Bedslope Effect of an Urban River, on the Concentration Profile of a Pollutant, through Mathematical Modeling.

Andrade, Carla
Souza, Raimundo
Department of Hydraulics and Environmental Engineering
Center of Technology - UCF
Campus do Pici, P. O. Box 6018
60451 - 970, Fortaleza, Ceará
Email: engenheiracarla@yahoo.com
rsouza@ufc.br

Water Quality - Cherokee Park Room

Hydrologic and Water Quality Modeling for River Water Quality Standards Compliance, Case Study: Selenium Levels in the Lower Gunnison Basin in Western Colorado

R. Blair Hanna
Water Resources, Hydrologic and Environmental Sciences Division, Civil Engineering Department, Colorado State University, Fort Collins

Jim C. Loftis
Civil Engineering Department, Colorado State University, Fort Collins

Assessing Irrigation-Induced Selenium and Iron in the Stream-Aquifer System of the Lower Arkansas River Valley

Joseph P. Donnelly
Graduate Research Assistant and MS candidate, Civil Engineering Department, Colorado State University, Fort Collins

Timothy K. Gates
Civil Engineering Department, Colorado State University, Fort Collins

QUAL-W2 Two-Dimensional Hydrodynamic and Water Quality Modelling on the Missouri River Mainstem System

William Doan, P.E.
U.S. Army Corps of Engineers, 106 S. 15th Street, Omaha, NE 68102-1618. 402-221-4583. bill.p.doan@usace.army.mil

Selenium Monitoring for the Uncompahgre River in the Lower Gunnison Basin in Western Colorado

Michael B. Gossenauer
Civil Engineering Department, Colorado State University, Fort Collins

Jim C. Loftis
Civil Engineering Department, Colorado State University, Fort Collins

Big Thompson Phosphorus Study

Jim Loftis
Environmental Engineering, Civil Engineering Department, Colorado State University, Fort Collins

Melanie Criswell, Liz Fagen, Elaina Holburn, Jenny Mueller
Environmental Engineering, Civil Engineering Department.

Amanda Suedmeier
Watershed Science, Colorado State University, Fort Collins

Extension Of ADM1 For Modeling Unsteady Anaerobic Reactor

Durmus Cesur
GIS/Database Administrator, Information Technology Division, San Antonio River Authority, San Antonio, TX

Hydraulics - Cherokee Park Room

Use Of A Rock Ramp For Grade Control – Dueñas Bridge Case

Julio M. Kuroiwa, Alfredo J. Mansen and Edgar Rodriguez
Mansen Kuroiwa Ings SAC, Lima, PERU

Evaluation of the Effects of Dam Re-operation on Establishment of Riparian Vegetation, Verde River, Arizona

C.G. Wolff
Senior Hydraulic Engineer, Mussetter Engineering, Inc., Fort Collins

Robert A. Mussetter
Principal Engineer, Mussetter Engineering, Inc., Fort Collins

Michael D. Harvey
Principal Geomorphologist, Mussetter Engineering, Inc., Fort Collins

Spatial variability of coarse bedload transport and its temporal changes over highflow seasons

Kristin Bunte, Steven R. Abt and Kurt Swingle
Engineering Research Center, Colorado State University, Fort Collins, CO 80523

Representing the Bed Roughness of Gravel Bed Rivers in Computational Fluid Dynamics

Shaun Carney
Stream Restoration, Wetlands, and River Mechanics Division, Civil Engineering Department, Colorado State University, Fort Collins

Brian Bledsoe
Stream Restoration, Wetlands, and River Mechanics Division, Civil Engineering Department, Colorado State University, Fort Collins

Hydraulic Modeling Analysis of the Middle Rio Grande, Corrales Reach

Jason M. Albert
Civil Engineering Department, CSU

Groundwater - Virginia Dale Room

Mapping a Former Channel of the South Platte River within the Tamarack Ranch Wildlife Area Using Electrical Resistivity

Jessica A. Poceta
Department of Geosciences, Colorado State University, Fort Collins

William E. Sanford
Department of Geosciences, Colorado State University, Fort Collins

Dennis L. Harry
Department of Geosciences, Colorado State University, Fort Collins

Ground and Surface Water Interaction in Ephemeral Wetlands, San Luis Valley, Colorado

Brian Kappen, William Sanford
Department of Geosciences, Colorado State University

John Sanderson, Graduate Degree Program in Ecology, Colorado State University

The Subsurface Flow and Transport Experimental Laboratory: A New Department of Energy User's Facility for Intermediate-Scale Experimentation.

M. Oostrom, T.W. Wietsma, and N.S. Foster
Pacific Northwest National Laboratory
P.O. Box 999 MS K9-33
Richland, WA 99352
USA

Analyses of Multiple Well Hydraulic Tests in Fractured Aquifers with Implications for Tracer Tests

William E. Sanford
Department of Geosciences, Colorado State University, Fort Collins, CO

Peter G. Cook
CSIRO Land & Water, Glen Osmond, South Australia

Neville Robinson
School of Chemistry, Physics and Earth Sciences, Flinders University, Adelaide, Australia

Petroleum Hydrocarbon Contamination Of Groundwater In Suez: Causes Severe Fire Risk

Sameh M. Afifi
Scientist, Civil Engineering Department, Colorado State University

Impacts of Forest Fires - Cherokee Park Room

Effectiveness of PAM Treatments in Reducing Post-fire Erosion on the Schoonover Fire, Colorado Front Range

Daniella Rough and Lee H. MacDonald
Watershed Science Program, Department of Forest, Rangeland, and Watershed Stewardship, Colorado State University, Fort Collins 80523

Comparisons Of Post-Fire Runoff And Erosion Rates Using A Rainfall Simulator, Colorado Front Range

Darren J. Hughes
Watershed Science Academic Program, Forest, Rangeland, and Watershed Stewardship Dept., Colorado State University, Fort Collins 80523 970-491-2774 djhughes@cnr.colostate.edu

Lee H. MacDonald
Forest, Rangeland, and Watershed Stewardship Dept., Colorado State University, Fort Collins 80523 970-491-6109 leemac@cnr.colostate.edu

Juan de D. Benavides-Solorio
Centro de Investigacion Regional de Pacifico Centro, Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias, Guadalajara, Jalisco, Mexico 44660 33-3641-2248 jdedios@cirpac.inifap.conacyt.mx

Hillslope Erosion Processes after High Severity Wildfires, Colorado Front Range

Joseph H. Pietraszek
Watershed Science Academic Program, Forest, Rangeland, and Watershed Stewardship Dept., Colorado State University, Fort Collins

Lee H. MacDonald
Watershed Science Academic Program, Forest, Rangeland, and Watershed Stewardship Dept., Colorado State University, Fort Collins

Effects of a Wildfire and Salvage Logging on Hillslope Erosion: Star Fire, Placer County, California

Eric H. Chase
Department of Forest, Rangeland, and Watershed Stewardship, Colorado State University, Fort Collins, CO

Lee MacDonald
Department of Forest, Rangeland, and Watershed Stewardship, Colorado State University, Fort Collins, CO

Remediation - Industrial Releases - Virginia Dale Room

In-Situ Remediation of Chlorinated Solvents via Zero Valent Iron and Stabilization

Mitch Olson, Tom Sale, Charles Shackelford, and David Castelbaum
Civil Engineering Department, Colorado State University

Direct Measurement of LNAPL Migration via Tracer Dilutions

Ryan Taylor, Tom Sale, and Mark Lyverse
Civil Engineering Department, Colorado State University

Microbial Community Dynamics of MTBE and BTEX Degradation

Ruoting Pei
Environmental Engineering Division, Civil Engineering Department, Colorado State University, Fort Collins

A Anurita
Environmental Engineering Division, Civil Engineering Department, Colorado State University, Fort Collins

Amy Pruden
Environmental Engineering Division, Civil Engineering Department, Colorado State University, Fort Collins

Development of a Well Bore Based Electrolytic Reactor for Use in Groundwater Contaminant Plume Remediation

Eric Petersen
Chemical Engineering Department, Colorado State University, Fort Collins

David Gilbert Ph.D.
Civil Engineering Department, Colorado State University, Fort Collins

Field Demonstration of a Sequential Electrolytic Permeable Reactive Barrier for Ground Water Treatment

Matthew Petersen
Chemical Engineering Department, Colorado State University, Fort Collins

David Gilbert
Civil Engineering Department, Colorado State University, Fort Collins

Tom Sale
Civil Engineering Department, Colorado State University, Fort Collins

The Use of Cross-linked Polyacrylamide as a Soil Amendment

Colleen H. Green
Soil & Crop Science Dept., Colorado State University, Fort Collins

Claire Foster
Dickinson College, Carlisle, PA

Grant E. Cardon
Soil & Crop Science Dept., Colorado State University, Fort Collins

Greg L. Butters
Soil and Crop Science Dept., Colorado State University, Fort Collins

M. Brick and B. Ogg
Dept of Soil and Crop Science

Contaminant Transport - Acid Mine Drainage - Cherokee Park Room

Tracing the Hydrologic Connection between Turquoise Lake and Local Mine Dewatering Tunnels with Dissolved Sulfur Hexafluoride (SF₆)

Josiah N. Engblom
Department of Geosciences, Colorado State University, Fort Collins, CO

William E. Sanford
Department of Geosciences, Colorado State University, Fort Collins, CO

John D. Stednick
Department of Forest, Rangeland, and Watershed Stewardship, Colorado State University, Fort Collins, CO

Watershed Transport of Mine Wastes

Mark Velleux
Rosalia Rojas-Sanchez
Pierre Julien
Department of Civil Engineering
Colorado State University
Fort Collins, CO

Quantifying Waterlogging and Salinization Impacts in the Eastern Arkansas River Valley, Colorado

Eric D. Morway
Civil Engineering Department, Colorado State University, Fort Collins

Timothy K. Gates
Civil Engineering Department, Colorado State University, Fort Collins

Simulation of Dispersion of Pollutant by Eddy Field.

Chagas, Patrícia
Souza, Raimundo
Department of Hydraulics and Environmental Engineering
Center of Technology - UFC
Campus do Pici, P. O. Box 6018
60451 - 970, Fortaleza, Ceará
Emails: pfchagas@yahoo.com: rsouza@ufc.br

Aquatic Habitat - Cherokee Park Room

Mapping Aquatic Habitat Characteristics In Stream Networks

Christopher O. Cuhaciyán
Department of Civil Engineering, Colorado State University, Fort Collins

Stephen C. Sanborn
Department of Civil Engineering, Colorado State University, Fort Collins

Brian P. Bledsoe
Department of Civil Engineering, Colorado State University, Fort Collins

Investigation of Habitat Formation and Fish Use during a Range of Flows in a Sand-bed Stream, the Pecos River, New Mexico

Jesa R. Lunger
Hydraulic Engineer, Mussetter Engineering, Inc., Fort Collins

Michael D. Harvey
Principal Geomorphologist, Mussetter Engineering, Inc., Fort Collins

Robert A. Mussetter
Principal Engineer, Mussetter Engineering, Inc., Fort Collins

Effect of Irrigation on Stream Depletion and Fish Habitats in an Eastern Colorado River

Steven Griffin
Department of Civil Engineering, Colorado State University, Fort Collins, Colorado.

Ramchand Oad
Department of Civil Engineering, Colorado State University, Fort Collins, Colorado.

Two-Dimensional Hydrodynamic Modeling of the Rio Grande to Support Fishery Habitat Investigations

Mitchell R. Peters
Hydraulic Engineer, Mussetter Engineering, Inc., Fort Collins

Robert A. Mussetter
Principal Engineer, Mussetter Engineering, Inc., Fort Collins

Dai B. Thomas
Hydraulic Engineer, Mussetter Engineering, Inc., Fort Collins

C. Gary Wolff
Senior Hydraulic Engineer, Mussetter Engineering, Inc., Fort Collins

Flow Requirements of Endangered Fishes and Water Supply Forecasting: Use of Physical Characteristics of Streamflows in Snowmelt-Dominated Rivers

Margaret A. Matter
Department of Civil Engineering, Colorado State University

Luis Garcia
Department of Civil Engineering, Colorado State University

Darrell Fontane
Department of Civil Engineering, Colorado State University

A Geomorphic Assessment of the Eagle River at Camp Hale

John Meyer
Department of Civil Engineering, Colorado State University, Fort Collins

Christopher O. Cuhaciyian
Department of Civil Engineering, Colorado State University, Fort Collins

Brian P. Bledsoe
Department of Civil Engineering, Colorado State University, Fort Collins

Water Interactions: Systems at Risk - What Can the Science of Hydrology Do?

András Szöllösi-Nagy

Director of the Division of Water Sciences of UNESCO
Secretary of the International Hydrological Programme of UNESCO

Landscape Evolution - Fluvial Geomorphology - Cherokee Park Room

Analysis of feedbacks between hydrologic response and long-term drainage basin evolution

Peter Solyom
School of Geography and the Environment, Oxford University, Oxford, UK

Gregory E. Tucker
Cooperative Institute for Research in Environmental Sciences (CIRES) and Department of Geological Sciences, University of Colorado, Boulder

A Comparison of the Geometrical Properties of Experimental and Natural River Basins Across a Range of Scales

J.D. Niemann
Department of Civil Engineering, Colorado State University

L. Hasbargen
Department of Geosciences, Indiana University Northwest

Landscape Evolution in High-Elevation Andean River Basins, Northern Peru: Mass Failure and Fluvial Transport

Stuart C. Trabant
Hydraulic Engineer, Mussetter Engineering, Inc., Fort Collins

Michael D. Harvey
Principal Geomorphologist, Mussetter Engineering, Inc., Fort Collins

Distributions of local height differences for spatially-random assemblages of particle patches to approximate surface roughness of random arrangements of sediment particles.

Nancy E. Brown
Department of Geosciences, College of Natural Resources, Colorado State University, Fort Collins, CO. e-mail:
brune@cnr.colostate.edu

Jorge A. Ramírez
Water Resources, Hydrologic and Environmental Sciences Division, Civil Engineering Department, Colorado State University, Fort Collins, CO

Initial analysis and comparison of surface roughness scaling relationships in two single-variable cellular models for particle interactions

Nancy E. Brown
Department of Geosciences, College of Natural Resources, Colorado State University, Fort Collins, CO.

Jorge A. Ramírez
Water Resources, Hydrologic and Environmental Sciences Division, Civil Engineering Department, Colorado State University, Fort Collins, CO

Ellen E. Wohl
Department of Geosciences, College of Natural Resources, Colorado State University, Fort Collins, CO
Resistance partitioning in step-pool channels

Andrew Wilcox, E. Wohl, and R. Turner
Dept. of Geosciences Colorado State University Fort Collins, CO 80523

Stochastic Approaches - Virginia Dale Room

Statistical downscaling in operational rainfall forecast

Nicola Rebora
CIMA, Universities of Genoa and Basilicata, Savona, Italy
DIAM, University of Genoa, Genova, Italy

Luca Ferraris
CIMA, Universities of Genoa and Basilicata, Savona, Italy
DIAM, University of Genoa, Genova, Italy

Jost von Hardenberg
CIMA, Universities of Genoa and Basilicata, Savona, Italy
DIAM, University of Genoa, Genova, Italy

Antonello Provenzale
CIMA, Universities of Genoa and Basilicata, Savona, Italy
ISAC-CNR, Torino, Italy

Scaling of Peak Flows with Respect to Drainage Area During Single Rainfall Events

Vijay Gupta
Civil and Environmental Engineering Department, University of Colorado, Boulder

Ricardo Mantilla, Peter Furey
CIRES, University of Colorado, Boulder

Seasonal Cycle Shifts in Hydroclimatology over the Western US

Satish Kumar Regonda, Balaji Rajagopalan and Martyn Clark
Department of Civil, Environmental and Architectural Engineering, University of Colorado, Boulder
CIRES, University of Colorado, Boulder

John Pitlick
Department of Geography, University of Colorado, Boulder

OTHA – Omaha Tools for Hydrologic Analysis - Time-Series/Statistical Analysis Programs for Water Resources

William Doan, P.E.
U.S. Army Corps of Engineers, 106 S. 15th Street, Omaha, NE 68102-1618. 402-221-4583. bill.p.doan@usace.army.mil

Neural Network Modeling of Climate Change Impacts on Irrigation Water Supplies in Arkansas River Basin

Elgaali Elgaali and Luis A. Garcia
Integrated Decision Support Group, Department of Civil Engineering, Colorado State University

Erosion – Sedimentation - Cherokee Park Room

Sediment Yield Estimates from Ungaged Tributaries to the Middle Rio Grande, New Mexico

Dai B. Thomas
Hydraulic Engineer, Mussetter Engineering, Inc., Fort Collins

Michael D. Harvey
Principal Geomorphologist, Mussetter Engineering, Inc., Fort Collins

Robert A. Mussetter
Principal Engineer, Mussetter Engineering, Inc., Fort Collins

Sediment Production and Delivery from Unpaved Forest Roads in Upper South Platte River

Zamir Libohova
Watershed Science Academic Program, Forest, Rangeland, and Watershed Stewardship Dept., Colorado State University, Fort Collins, CO

Lee H. MacDonald
Watershed Science Academic Program, Forest, Rangeland, and Watershed Stewardship Dept., Colorado State University, Fort Collins, CO

Ethan Brown
Watershed Science Academic Program, Forest, Rangeland, and Watershed Stewardship Dept., Colorado State University, Fort Collins, CO

Sediment yield and stream stability analysis of the Yalobusha River before and after a watershed scale stream rehabilitation project.

Brett Jordan
Civil Engineering Department, CSU

Predicting Flow Regime for Ungauged Streams in CO, WA, and OR

Stephen C. Sanborn
MS Candidate, Civil Engineering Department, Colorado State University, Fort Collins, CO

Brian P. Bledsoe
Civil Engineering Department, Colorado State University, Fort Collins, CO

Overbank Sedimentation due to Beaver Activity in a Mountain Landscape

Cherie J. Westbrook
Department of Forest, Rangeland, and Watershed Stewardship and Graduate Degree Program in Ecology, Colorado State University,
Fort Collins, CO, USA 80523-1470

David J. Cooper
Department of Forest, Rangeland, and Watershed Stewardship and Graduate Degree Program in Ecology, Colorado State University,
Fort Collins, CO, USA 80523-1470

Bruce W. Baker
U.S. Geological Survey, USGS Fort Collins Science Center,
2150 Centre Avenue, Bldg C, Fort Collins, CO, USA 80526-8118
Suspended and substrate sediment sizes of the Lower Rio Puerco, New Mexico

Robert T Milhous
Fort Collins Science Center. U.S. Geological Survey. 2150 Centre Avenue, Building C. Fort Collins, CO 80526

Julie Fleming
Fort Collins Science Center. U.S. Geological Survey. 2150 Centre Avenue, Building C. Fort Collins, CO 80526

GIS – Agriculture - Irrigation - Virginia Dale Room

Analysis of DEM accuracy, grid cell size, and alternative flow routing algorithms for estimating topographic attributes

Robert H. Erskine
Ph.D. Student, Civil Engineering Department, Colorado State University, Fort Collins, CO
USDA-ARS Great Plains Systems Research Unit, Fort Collins, CO

Timothy R. Green
USDA-ARS Great Plains Systems Research Unit, Fort Collins, CO

Jorge A. Ramirez
Civil Engineering Department, Colorado State University, Fort Collins, CO

Lee H. MacDonald
Forest, Rangeland, and Watershed Stewardship Department, Colorado State University, Fort Collins, CO

Quantification of Climate Change Impacts on Irrigation Water Demand in the Arkansas River Basin- Spatial Approach

Elgaali Elgaali and Luis A. Garcia
Integrated Decision Support Group, Department of Civil Engineering, Colorado State University

Spatial Modeling using Remote Sensing, GIS, and Field Data to Assess Crop Yield and Soil Salinity

Ahmed Eldeiry and Luis A. Garcia
Integrated Decision Support Group, Department of Civil Engineering, Colorado State University

Enterprise GIS for San Antonio River Authority

Durmus Cesur
GIS/Database Administrator, Information Technology Division, San Antonio River Authority, San Antonio, TX

Numbers Tell the Tale: The Role of Data in Environmental Policy Making

Paul A. Portney
President
Resources for the Future

**Ammons Hall
Colorado State University
Watershed Hydrology and Modeling - Cherokee Park Room**

Quantification of the Uncertainty Associated with Precipitation and Recharge Estimates of Desert Basins in Nevada

Brian J. Epstein
Department of Hydrologic Sciences, Desert Research Institute / Hydrologic Sciences Graduate Program, University of Nevada
Reno

Justin Huntington
Department of Geosciences, Boise State University / Hydrologic Sciences Graduate Program, University of Nevada Reno

Greg Pohll
Department of Hydrologic Sciences, Desert Research Institute

The TopoFlow Hydrologic Model: A New Community Project

S. D. Peckham
University of Colorado, Boulder, Colorado

Larry Hinzman and Matt Nolan,
University of Alaska, Fairbanks

New Capabilities of the South Platte Mapping and Analysis Program – Estimating Consumptive Use of Groundwater and Depletions to the South Platte in Colorado

Luis A. Garcia
Integrated Decision Support Group, Department of Civil Engineering, Colorado State University

Basin-Scale Stream-Aquifer Modeling of the Lower Arkansas River, Colorado

Enrique Triana
Civil Engineering Department, Colorado State University, Fort Collins

John W. Labadie
Civil Engineering Department, Colorado State University, Fort Collins

Timothy K. Gates
Civil Engineering Department, Colorado State University, Fort Collins

Geospatial Interoperability in Modeling Frameworks - The ‘GEOLEM’ Approach

Olaf David, Roland J. Viger and Luis A. Garcia
Integrated Decision Support Group, Department of Civil Engineering, Colorado State University

Representation of Wetlands for Integrated Hydrologic Models

Alaa Aly
Senior Engineer, INTERA, Incorporated, Niwot, Colorado

Patrick Tara
Senior Engineer, INTERA, Incorporated, Tampa, Florida

Snow Hydrology – Cherokee Park Room

Mountain block recharge from snowmelt runoff in the Colorado Rocky Mountains

Mark Williams
Department of Geography and Institute of Arctic and Alpine Research, University of Colorado, Boulder

Fengjing Liu
Department of Geography and Institute of Arctic and Alpine Research, University of Colorado, Boulder

Jord Gertson
Sourcewater Consulting, Leadville Colorado

Persistence of Topographic Controls on the Spatial Distribution of Snow in Rugged Mountain Terrain, Colorado, USA

Tyler A. Erickson
Institute of Arctic and Alpine Research and the Department of Geography, University of Colorado, Boulder, Colorado

Mark W. Williams
Institute of Arctic and Alpine Research and the Department of Geography, University of Colorado, Boulder, Colorado

Streamflow Predictability in the Upper versus Lower Colorado River Sub-basins

Steven Fassnacht
Watershed Sciences Program, Department of Forest, Rangeland and Watershed Stewardship, Colorado State University, Fort Collins

GeoTool: A Modeling Toolbox for Geomorphic Analysis

Brian P. Bledsoe
Department of Civil Engineering, Colorado State University, Fort Collins

David A. Raff
United States Department of the Interior, Bureau of Reclamation, Flood Hydrology Group, Denver, CO

Whitney Borland and the Bureau of Reclamation - 1930 - 1972

Ernie L. Pemberton
Head, Sedimentation Section, USBR 1970-1982

Robert I. Strand
Head, Sedimentation Section, USBR 1982-1994

Management – Policy Issues - Cherokee Park Room

Applied Stochastic Hydrology

Jerson Kelman, Ph.D.
Director, President, National Water Agency, Brazil
Water Storage Policy for Colorado

Neil S. Grigg
Department of Civil Engineering, Colorado State University, Fort Collins

Optimization of multi-reservoir system operation: Application to the Geum river basin, Korea

Jin-Hee Lee
Water Resources Planning & Management Division, Civil Engineering Department, Colorado State University, Fort Collins
John W. Labadie
Water Resources Planning & Management Division, Civil Engineering Department, Colorado State University, Fort Collins
Darrell G. Fontane
Water Resources Planning & Management Division, Civil Engineering Department, Colorado State University, Fort Collins
Ick-Hwan Ko
Water Resources Research Institute, Korea Water Resources Corporation, Daejeon, Korea

Deriving Willingness to Pay Estimates for Colorado Water Rights: The Lake Sherwood Area in Fort Collins, Colorado

Adam Smith
Natural Resources Recreation and Tourism, Colorado State University, Fort Collins

Bayesian Learning in Water Management

Abedalrazq Khalil
Department of Civil and Environmental Engineering, Utah Water Research Laboratory, Logan, Utah

Mac McKee
Civil and Environmental Engineering, Utah Water Research Laboratory Logan, Utah

Climatology - Cherokee Park Room

On The Sensitivity of Regional Hydrologic Fluxes to Climatic Changes

Jeffrey D. Niemann
Department of Civil Engineering, Colorado State University

Elfatih Eltahir
Department of Civil and Environmental Engineering, Massachusetts Institute of Technology

A Review Of The 2003 Water Year In Colorado

Nolan J. Doesken
Colorado Climate Center, Atmospheric Science Department, Colorado State University, Fort Collins, Colorado

Michael A. Gillespie
Snow Survey Division, Natural Resources Conservation Service, US Department of Agriculture, Lakewood, Colorado

Developing a Homogeneous Data Series of Pan Evaporation Across the Conterminous United States for Analysis of Long-Term Trends.

Michael Hobbins, Jorge A. Ramirez, and Thomas C. Brown

Developing a Long-term, Continental-scale, High-resolution Time-series of Spatially Distributed, Topographically Corrected Solar Radiation.

Michael Hobbins, Jorge A. Ramirez, and Thomas C. Brown

The Recent High Precipitation Period Reported for Fort Collins

Marvin Criswell

Water Resources, Hydrologic and Environmental Sciences Division, Civil Engineering Department, Colorado State University, Fort Collins

Melanie Criswell, M.S. Candidate. Environmental Engineering, Civil Engineering Department, Colorado State University, Fort Collins

Posters

Numerical Simulation of Groundwater Recharge and Discharge in Escarpment Retreat

Xiangjiang Huang

Hydrologic Sciences and Engineering Division, Civil Engineering Department, Colorado State University, Fort Collins, CO

Jeffrey D. Niemann

Hydrologic Sciences and Engineering Division, Civil Engineering Department, Colorado State University, Fort Collins, CO

Droughts in Finland – past, present and future

Esko Kuusisto

Finnish Environment Institute, Hydrological Services Division, Helsinki, Finland

Modeling Complex Interactions of Overlapping River and Road Networks in a Changing Landscape

Brent Read, Paul W. Box, Alan P. Covich, Todd A. Crowl, Armando Gonzalez-Caban, Elias R. Guterrez, Melinda Laituri John B. Loomis, Andrew Pike, Jorge A. Ramirez, Luis E. Santiago, Frederick N. Scatena, C. Dana Tomlin, Ellen E. Wohl.

Groundwater modelling for monitoring purposes in construction projects

Cinzia Miracapillo

University of Applied Sciences Civil Engineering, Muttenz, Switzerland

Fuzzy Clustering-based Neural Networks for Describing Rainfall-Runoff Process

Alireza Nazemi

Graduate Student, Department of Mechanical Engineering, Ferdowsi University of Mashhad, Mashhad, Iran

Hossein Poorkhadem,-N.

Graduate Student, Department of Mechanical Engineering, Ferdowsi University of Mashhad, Mashhad, Iran

Mohammad –R. Akbarzadeh –T.

Department of Electrical Engineering, Ferdowsi University of Mashhad, Mashhad, Iran

Seyed Mahmood Hosseini

Department of Civil Engineering, Ferdowsi University of Mashhad, Mashhad, Iran

Solutions of the linearized Richards equation with arbitrary boundary and initial conditions: flux and soil moisture respectively

M. Menziani(1), S. Pugnaghi(1), E. Romano(2), S. Vincenzi(3)

(1) Università degli studi di Modena e Reggio Emilia, Dipartimento d' Ingegneria dei Materiali e dell'Ambiente, Via Vignolese 905,I- 41100 Modena, Italy

(2) Università degli Studi di Milano, Dipartimento di Scienze della Terra, sezione di Geofisica, Via Cicognara 7, I-20129 Milano, Italy

(3) ISMAR-istituto di Scienze Marine, Dinamica grandi masse, CNR, S. Polo 1364, I-30125 Venezia, Italy

marilena.menziani@unimo.it / Tel : +39 059 2056217 / Fax: +39 059 2056243

Inverse Estimation of Soil Hydraulic Properties Over the Landscape on Two Agricultural Sites in Colorado

Elizabeth Fogarty and Timothy R. Green
USDA-ARS Great Plains Systems Research Unit, Fort Collins, CO

Space-Time Modeling of Agricultural Landscape Variability Using AgSimGIS

James C. Ascough II, Timothy R. Green, Jan E. Cipra, Lajpat R. Ahuja, and Liwang Ma
USDA-ARS Great Plains Systems Research Unit, Fort Collins, CO

Predicting Cumulative Watershed Effects using Spatially Explicit Models

S.E. Litschert and L.H. MacDonald
Forest, Rangeland, and Watershed Stewardship Department, Colorado State University, Fort Collins, CO

Effects of Storm Runoff on Stream Temperature and Water Quality in Urbanized Areas along the Wasatch Mountains, Utah

Christine Albano
Dept. of Biology, Colorado State University, Fort Collins, CO.

Steven J. Gerner
Water Resources Division, Utah District, U.S. Geological Survey, Salt Lake City, UT.

Using Stable and Cosmogenic Isotopes to Delineate Flowpaths and Sourcewaters of Acid Mine Drainage in the Mary Murphy Mine, Chaffee Co., Colorado

Daniel Cordalis, Institute of Arctic and Alpine Research, 1560 30th St, Boulder, CO 80309

Robert Michel, USGS, 345 Middlefield RD, Menlo Park, CA 94025

Mark Williams, Institute of Arctic and Alpine Research, 1560 30th St, Boulder, CO 80309

Mike Wireman, US EPA Region VIII, 999 18th St Suite 300, Denver, CO 80202

Physical models application of flow analysis in regulated reservoir dams

S. Faghihirad
Chief Engineer, Water Research Institute, Tehran, Iran

M.R.M. Tabatabai
Assistant Prof, Power and Water Institute of Technology, P.O.Box 16765-1719, Tehran, Iran

M. Kolahdoozan
Assistant Prof., AmirKabir University of Technology (Tehran Polytechnique), Tehran, Iran

Challenges, Constraints and Achievements of The Lake Chad 's Saveguard campaign.

Pascal Daaktano
International Relations Institute of Cameroon
Po Box 3452 Yaounde
E-mail: pkdadje@yahoo.fr

Effect of Surface texture on the clusters of spheres falling in Quiescent Fluids

Prof. Ashok Kumar
Emeritus Professor
Dept. of Civil Engg.
I.T., B.H.U.
Varanasi-221005, India

Mr. Anil Kumar
Former Graduate Student
Dept. of Civil Engg.
I.T., B.H.U.
Varanasi-221005, India

