

CURRICULUM VITAE

Steven J. Wright – Arthur F. Thurnau Professor Emeritus and Professor Emeritus of Civil and Environmental Engineering

PERSONAL INFORMATION

Address: 113 EWRE The University of Michigan Ann Arbor, MI 48109-2125	Home Address: [REDACTED] Email: sjwright@umich.edu
Telephone: (734) 764-7148 Birthdate: June 23, 1949	Fax: (734) 763-2275

EDUCATION

Washington State University	
B.S. (Agricultural Engineering)	1971
M.S. (Hydraulic Engineering)	1973
California Institute of Technology	
Ph.D. (Civil Engineering)	1977

PROFESSIONAL EXPERIENCE

U.S. Geological Survey, Water Resources Division: Summer Employment 1970
Washington State University
Research Assistant: Numerical Modeling of Irrigation Flow 1970-1971
Research Assistant: Prediction of Turbulent Flow in Rough Conduits, 1971-1973
California Institute of Technology
Research Assistant: Propagation of Tsunami Waves 1973
Research Assistant: Buoyant Jets and Plumes in Stratified Crossflows, 1973-1977
Research Engineer: San Francisco Outfall Model Study 1977
University of Michigan, Department of Civil and Environmental Engineering
Assistant Professor 1977-1983
Associate Professor 1983-1992
Professor 1992-2018
Arthur F. Thurnau Professor Emeritus and Professor Emeritus of Civil and Environmental Engineering 2018-present
Postdoctoral Research Fellow, Federal Institute of Technology, Zurich Switzerland 1984-85
Visiting Professor, University of Canterbury, Christchurch New Zealand 1992
Visiting Professor, University of Idaho, 2000
Affiliate Professor, University of Idaho, 2000-present
Fulbright Teaching and Research Fellow, University of Concepcion, Chile, 2008
Faculty Director of Education and Outreach, Graham Environmental Sustainability Institute, University of Michigan, 2008-2010

Licensed Professional Engineer in State of Michigan 6201028674

TEACHING AND RESEARCH ACTIVITIES

Thermodynamics review sessions for Fundamentals of Engineering exam
Lecturer, Gerhard Jirka Summer School, Hong Kong University of Science and Technology,
December 2014, air interactions in urban drainage systems

Research Interests

Sustainable Development; intersection of water and energy issues
Hydraulics and Hydrology
Stormwater management, especially hydraulics of rapidly filling storage tunnel systems
Sediment Transport processes, especially contaminated sediments
Water Quality Issues in Natural Systems
Density Effects in Buoyant Jets, Outfall Diffuser Mixing
Stratified Flows
Diffusion, Dispersion, and Other Turbulent Mixing Processes
Contaminant Transport in Groundwater Systems
Unsaturated Flow in Porous Media
Coastal Hydraulics

PROFESSIONAL ACTIVITIES

International

Consultant to World Bank - Technical review of environmental studies related to Red Sea/Dead Sea Water Conveyance Study Program 2010-2011.

Co-organizer Pan American Advanced Study Institute "Balancing Hydropower Development and Biodiversity: Is Sustainability in an Adaptive Management Framework Achievable?" Held in Coyhaique and Concepcion, Chile, 2005.

Participant in Pan American Advanced Study Institute "Human, Physical and Natural Capital Investment in Patagonia: A Predictive Approach Under the Sustainability Criterion," Concepcion Chile, 2008.

Great Lakes Commission - Service on Technical Experts Panel, Ecological Impacts of Water Withdrawals from the Great Lakes Basin. Technical Meeting, November, 2001

Participant and Presenter, NATO Advanced Study Institute – Recent Research Advances in the Fluid Mechanics of Turbulent Jets and Plumes, Viano do Castelo, Portugal 1993

Participant, US-Republic of China Workshop on Ocean Resources and Deep Ocean Water, NSF sponsored, 1995

Sponsored by China Ministry of Water Resources, Lecturer at Hohai University on ocean outfalls

National

Associate Editor, Journal of Hydraulic Engineering, American Society of Civil Engineers (2003-2007)

State of Idaho – Provided numerical modeling support for development of rule curves for operation of Dworshak Reservoir to manage temperatures and total dissolved gas concentrations in the Clearwater River for salmon recovery efforts under the Endangered Species Act.

General Electric Nuclear Energy Division – Provided program review for investigation of fluid dynamics responsible for high cycle fatigue cracks in shrouding surrounding steam dryer system in General Electric nuclear power plants.

USEPA Science Advisory Board - D-CORMIX Review Panel, 1998-99

ASCE Hydraulics Division Task Committee on Entrainment in Internal Jumps

Co-editor of symposium monographs published from annual Urban Water Systems Modeling Conference since 2006

International Programs Committee, College of Engineering
 Steering Committee for President Coleman's Initiative on Ethics in Public Life
 Martin Luther King Day committee, College of Engineering
 Faculty Advisor, Pantanal Partnership – student group involved in development activities in Pantanal region of Brazil (Mato Grosso state), especially development of small scale water treatment systems (2011-2018)
 Faculty Advisor, Chi Epsilon Honorary Society (1994-2017)
 Advisor, ASCE student chapter 1978-1983
 Advisor, Environmental Engineering graduate student organization
 Center for Research in Learning and Teaching, Advisory Board 2005-2007
 Faculty Advisor for North Campus Community Building Committee 2003-2007
 COE Honors and Awards Committee (2006-2008)
 Development of Sustainable Water Resources dual degree program between Civil and Environmental Engineering and School of Natural Resources and the Environment.
 Development of University-wide course on "Sustainable Energy Development in South America," sponsored by the Graham Environmental Sustainability Institute.
 Sponsor of various undergraduate research projects under the Marian Sarah Parker Scholars Program, Undergraduate Research Opportunities Program, Summer Research Opportunities Program, GE Faculty for the Future Program, NASA SHARP program, etc.
 Sponsor of international exchange student (from Greece) under IAESTE exchange program.

HONORS AND AWARDS

Listed in Who's Who in Science and Engineering and Who's Who in America
 Outstanding Senior Student in Agricultural Engineering 1971
 Lorenz G. Straub Award (by St. Anthony Falls Hydraulics Lab, for most meritorious Hydraulics Ph. D. dissertation) 1977
 University of Michigan Class of 38E Distinguished Service Award 1980
 James R. Rumsey (publication award from Michigan Water Pollution Control Federation) 1983
 Swiss National Science Foundation International Postdoctoral Fellowship 1984
 J.C. Stevens Award (ASCE publication award) 1986
 ASCE Student Chapter "Professor of the Year," Teaching award, 1990
 Visiting Erskine Fellowship, University of Canterbury, Christchurch, New Zealand, 1992
 ASCE Student Chapter "Professor of the Year", teaching award, 1993
 Excellence in Service Award, Civil and Environmental Engineering Department, University of Michigan, 1994.
 ASCE Student Chapter "Professor of the Year", teaching award, 1995
 Excellence in Teaching Award, Civil and Environmental Engineering Department, University of Michigan, 1998.
 ASCE Student Chapter "Professor of the Year", teaching award, 1999
 ASCE, Ann Arbor Branch, Engineer of the Year, 1999
 Michigan Section, ASCE, Outstanding Civil Engineer award, 1999
 Excellence in Teaching Award, College of Engineering, University of Michigan, 2002
 Civil and Environmental Engineering Department award, 2003
 College of Engineering Teaching Academy
 University-wide Undergraduate Teaching Award.
 Chi Epsilon, Great Lakes District Outstanding Faculty Advisor, 2005 (second at national level for outstanding faculty advisor 2004-2006 period)
 Arthur F. Thurnau named University professorship 2006
 Fulbright Scholar, 2008 Teaching and Research program in Chile, Concepcion Chile

Model Study of Metropolitan Airport Pumping Station No 11, model of pump intake conditions in proposed stormwater pumping station

Model Study of Downriver Tunnel Pumping Station, model of pump intake conditions in proposed stormwater pumping station

Model Study of Ontonagon Harbor, Michigan, evaluation of wave mitigation alternatives

Model study of Conner Creek Wastewater Pumping Station, City of Detroit, Michigan

Model Study (2) for Montgomery Watson for Stormwater Control Structures, Cleveland, Ohio.

Investigation to determine design of armor stone layer protecting PCB contaminated sediments in Manistique Harbor, Michigan.

Model Study of Stormwater Retention Basin, City of River Rouge, Michigan.

Model Study of Lake St. Clair circulation in the vicinity of Pier Park to determine sources of bacterial contamination and remedial actions.

Model Study for Tawas Bay Marina, mitigation of wave activity

Model Study for Sister Bay Harbor, mitigation of wave activity and maintenance of circulation within marina

Model Study of Junction Chamber in City of Grand Rapids Sewer System

Model Study of Grosse Pointe Yacht Club Small Craft Harbor, Mitigation of excess wave activity

Hydraulic Model Study, wet wells and pump intakes, Pumping Station 2A, Detroit Michigan

Wastewater Treatment Plant

Hydraulic Model Study of flow distribution in Wastewater Influent Splitter Chamber, Columbus Ohio Wastewater Treatment Plant, additional study on vortex shedding from guide vanes

Model Study of Grosse Pointe Club Small Craft Harbor, Mitigation of Excess Wave Activity

Calibration of Various Flow Metering devices

Harbor Model Study, Milwaukee Outer Harbor, testing of potential wave mitigation structures

Hydraulic Model Study, Sodium Hypochlorite Injection System, Cooling Water System, Midland Nuclear Power Plant

PUBLICATIONS

Books:

- "Essentials of Engineering Fluid Mechanics," 5th edition, R. M. Olson and S. J. Wright, Harper & Row, Publishers, 1990.
- "Contemporary Modeling of Urban Water Systems, Monograph 15" W. James, K.N. Irvine, E.A. McBean, R.E. Pitt and S.J. Wright, eds. CHI, 2007.
- "Sensible Modeling of Urban Water Systems, Monograph 16" W. James, K.N. Irvine, E.A. McBean, R.E. Pitt and S.J. Wright, eds. CHI, 2008.
- "Conceptual Modeling of Urban Water Systems, Monograph 17" W. James, K.N. Irvine, J. Y. Li, E.A. McBean, R.E. Pitt and S.J. Wright, eds. CHI, 2009.
- "Dynamic Modeling of Urban Water Systems, Monograph 18" W. James, K.N. Irvine, J. Y. Li, E.A. McBean, R.E. Pitt and S.J. Wright, eds. CHI, 2010.
- "Cognitive Modeling of Urban Water Systems, Monograph 19" W. James, K.N. Irvine, J. Y. Li, E.A. McBean, R.E. Pitt and S.J. Wright, eds. CHI, 2011.
- "Modeling of Urban Water Systems, Monograph 20" W. James, K.N. Irvine, J. Y. Li, E.A. McBean, R.E. Pitt and S.J. Wright, eds. CHI, 2012.
- "Pragmatic Modeling of Urban Water Systems, Monograph 21" W. James, K.N. Irvine, J. Y. Li, E.A. McBean, R.E. Pitt and S.J. Wright, eds. CHI, 2013.

J. G. Vasconcelos and S. J. Wright, "Investigation of Rapid Filling of Poorly Vented Stormwater Storage Tunnels" *Journal of Hydraulic Research*, Vol. 47 (5), 2009, pp. 547-558.

S. J. Wright, E. Habit, S. Adlerstein, O. Parra, and J. D. Semrau, Graham Scholars Program: Sustainability Education through Interdisciplinary International Case Study, *Sustainability Science*, 2009, Vol. 4 (1) 29-36.

S.J. Wright, J.G. Vasconcelos, J.W. Lewis and C.T. Creech, "Flow Regime Transition and Air Entrapment in Combined Sewer Storage Tunnels," *Journal of Water Management Modeling* R235-15. doi:10.14796/JWMM.R235-15

J.W. Lewis, S.J. Wright, J. Sherrill and M. Pribak, "CSO Diversion through Bottom Outlet Slot, Site DS-4, Upper Rouge Tunnel System," *Journal of Water Management Modeling* R235-21. doi: 10.14796/JWMM.R235-21

S.J. Wright, C.T. Creech, J.M. Lewis and J. G. Vasconcelos, "Mechanisms of Flow Regime Transition in Rapidly Filling Stormwater Storage Tunnels," *Environmental Fluid Mechanics*, 2008, 8, 605-616.

S.J. Wright, J.D. Semrau and D.R. Keeney, "Microbial Fouling of a Reverse Osmosis Municipal Water Treatment System" *Water Environment Research*, Vol. 80 (8) 703-707.

J.G. Vasconcelos, S.J. Wright and P.L. Roe, "Numerical Oscillations in Pipe-Filling Bore Predictions by Shock Capturing Methods," *Journal of Hydraulic Engineering*, 2009 Vol. 135 (4) 296-305.

J. G. Vasconcelos and S. J. Wright, "Rapid Flow Startup in Filled Horizontal Pipelines" *Journal of Hydraulic Engineering*, Vol. 134, 7, pp. 984-992.

J.G. Vasconcelos, S.J. Wright and P.L. Roe, "Improved Simulation of Flow Regime Transition in Sewers: Two-Component Pressure Approach," *Journal of Hydraulic Engineering*, Vol. 132, 6, 2006, 553-562.

J.G. Vasconcelos and S.J. Wright, "Comparison Between the Two-Component Pressure Approach and Current Transient Flow Solvers," *Journal of Hydraulic Research*, Vol. 45, 2, 2007 178-187.

S.J. Wright, J. W. Lewis and J. G. Vasconcelos, "Mechanisms for Stormwater Surges in Vertical Shafts," *Journal of Water Management Modeling* R227-05. doi: 10.14796/JWMM.R227-05

J.G. Vasconcelos and S.J. Wright, "Experimental Investigation on Surcharging of Flowing Sewers," *Journal of Water Management Modeling* R227-10. doi: 10.14796/JWMM.R227-10

B.P. Tullis and S.J. Wright, "Wetting Front Instabilities: A Three-Dimensional Experimental Investigation," *Transport in Porous Media*, Vol. 70 (3), 2007, 335-353.

M. Guizani, J.G. Vasconcelos, S.J. Wright, and K. Maalel "Investigation of Rapid Filling of Empty Pipelines," *Journal of Water Management Modeling* R225-20. doi: 10.14796/JWMM.R225-20

J. G. Vasconcelos and S. J. Wright, "Experimental investigation of large surges generated in stormwater storage tunnels" *Journal of Hydraulic Engineering*, Vol. 131, 10, 2005, pages 853-861.

J.G. Vasconcelos, S.J. Wright, and P.L. Roe "Current Issues in Modeling Extreme Inflows in Stormwater Systems," *Journal of Water Management Modeling* R225-19. doi: 10.14796/JWMM.R225-19.

M. Ulasir and S.J. Wright, "Influence of Downstream Control and Limited Depth of Flow Hydrodynamics of Impinging Buoyant Jets," *Environmental Fluid Mechanics*, vol. 3, pp. 85-107, 2003.

S.J. Wright, R.K. Mohan, M.P. Brown, and C.C. Kim, "Filter Design Criteria for Sediment Caps in Rivers and Harbors," *Journal of Coastal Research*, Vol. 17, No. 2, pp. 353-362.

J. G. Vasconcelos and S. J. Wright, "Applications and Limitations of Single-Phase Models to the Description of the Rapid Filling Pipe Problem," *Journal of Water Management Modeling* R223-19. doi: 10.14796/JWMM.R223-19

"Preliminary Study: The Diversion of 282 m³/sec (10,000 cfs) from Lake Superior to the Missouri River Basin", (with J.W. Bulkley and D. Wright), *Journal of Hydrology*, Vol. 68, pp. 461-472, 1984.

"Optimal Cost Control Strategies for Attached Algae", (with R.P. Canale, M.T. Auer, Y. Matsuoka, and T.M. Heidtke), *ASCE Journal of Environmental Engineering*, Vol. 109, pp. 1225-1242, 1983.

"Matched Impedance to Control Fluid Transients", (with E.B. Wylie and L.B. Taplin), *ASME Journal of Fluids Engineering*, Vol. 105, pp. 219-224, 1983.

Discussion to "Vertical Round Buoyant Jet in Shallow Water" (with P.J.W. Roberts), *ASCE Journal of Hydraulic Engineering*, Vol. 109, 3, pp. 490-494, 1983.

"Outfall Diffuser Behavior in Stratified Ambient Fluid", (with R.B. Wallace, D.R. Wong and K.E. Zimmerman), *Journal of the Hydraulics Division, ASCE*, Vol. 108, pp. 483-501, 1983.

Discussion of "Forced Plume in Stratified Reservoir", *Journal of the Hydraulics Division, ASCE*, Vol. 105, pp. 281-283, 1979.

"Two-Dimensional Jet in Stratified Fluid", (with R.B. Wallace), *Journal of the Hydraulics Division, ASCE*, Vol. 105, pp. 1393-1406, 1979.

Discussion of "Entrainment and Drag Forces of Deflected Jets", *Journal of the Hydraulics Division, ASCE*, Vol. 103, pp. 458-460, 1977.

"Mean Behavior of Buoyant Jets in a Crossflow", *Journal of the Hydraulics Division, ASCE*, Vol. 103, pp. 499-513, 1977.

"A General Theory for Flow in Rough Conduits", (with J.A. Roberson and M. Bajwa), *Journal of Hydraulic Research*, Vol. 2, pp. 223-240, 1974.

Conference Proceedings

S.J. Wright, "Modeling Rapid Filling Processes in Stormwater Tunnel Systems," *Proceedings 2014 Hong Kong Drainage Services District Sustainable Stormwater and Wastewater Conference*.

S.J. Wright, K.V. Determan, and S.M. Vargas, "Pressure Transients due to Compression of Trapped Air in Rapidly Filling Combined Sewer Overflow Storage Tunnels," *Proceedings 2011 World Environmental & Water Resources Congress, Palm Springs, California*

J.G. Vasconcelos, S.J. Wright and D. Lautenbach, "Modeling Approaches for the Rapid Filling of Closed Conduits with Entrapped Air, *Proceedings 2011 World Environmental & Water Resources Congress, Palm Springs, California*

P. C. Kavcar and S.J. Wright, "Effects of Pore Water Flux on Sediment Resuspension," *Fifth International Conference on Remediation of Contaminated Sediments, 2009, Jacksonville, Florida*.

P. Adriaens, S.J. Wright, T. Redder, J. Wolfe, J. DePinto, N. Barabas, and G. Peterson, "Integrating Site Uncertainty and Laboratory Data Using an Uncertainty-Based Sediment Capping Model," *Fifth International Conference on Remediation of Contaminated Sediments, 2009, Jacksonville, Florida*.

S.J. Wright and M. E. Dencau, "Water Quality Modeling to Assist Reservoir Management Decision Making to Meet Salmon Recovery Objectives," *7th International Ecohydraulics Symposium, Concepcion Chile, January 2009*

N. Barabas, T. Redder, J. DePinto, J. Wolfe, P. Adriaens, S.J. Wright, and C. Gruden, "Gas Ebullition in Sediments – Mechanisms, Impacts and Representation in Models," *Fifth International Conference on Remediation of Contaminated Sediments, 2009, Jacksonville, Florida*.

P. C. Kavcar and S.J. Wright, "Effects of Seepage on the Stability of Capped and Uncapped Cohesive Sediments," *33rd IAHR Congress, 2009, Vancouver, BC*.

J. W. Lewis and S.J. Wright, "Physical Investigation of Air Pocket Release in Below Grade Storage Tunnels," *33rd IAHR Congress, 2009, Vancouver, BC*.

M. Ulasir, D.D. Carpenter, M.L. West, L.J. MacVean and S.J. Wright, "CEAL: Cooperative Learning Coupled with Hands On Experimentation in a Junior Level Fluid Mechanics Laboratory" Proceedings 2001 American Society for Engineering Education Annual Conference

S.J. Wright and M.Ulasir, "Mixing Controlled by Buoyancy in Submerged Turbulent Jets Impinging on a Free Surface," Proceedings, 5th International Symposium on Stratified Flow, Vancouver, B.C. 2000

L.G. Glascoe, L.M. Abriola, and S.J. Wright, "Numerical Investigation of the Potential Influence of Advection-Induced Phase Change on In-Situ Bioventing Operations," XII International Conference on Computational Methods in Water Resources, Crete, June, 1998.

L. G. Glascoe, L.M. Abriola, and S.J. Wright, "Numerical Modeling of Phase Change during Bioventing: Influence of Injection Flow Rates and Thermal Conductivity" Proceedings IAHR Congress, Graz, Austria, August, 1999.

B.P. Tullis and S.J. Wright "Scaling Laws for Fingering in Unsaturated Flow Systems," 27th IAHR Congress, San Francisco, CA, 1997

L.G. Glascoe, L.M. Abriola, and S.J. Wright, "Moisture Content and Temperature Changes in a Non-Isothermal Bioventing Model," Proceedings AGU Spring Meeting, May, 1997.

J. Buhler, S.J. Wright and T. Dreier, "The Internal Slab-Collapse Problem," Proceedings 4th IAHR Symposium on Stratified Flows, Grenoble, France, 1994.

S.J. Wright and D. Paez-Rivadeneira, "Density Intrusions with Large Relative Thickness," Proceedings 4th IAHR Symposium on Stratified Flows, Grenoble, France, 1994.

"A Physically-Based, Three-Dimensional, Land Surface Process Model," (K.P. Czajkowski, M.A. Carroll, W.R. Kuhn, H.G. Marshall, and S.J. Wright). 1993 American Geophysical Union Fall Meeting, EOS Supplement, Vol. 74, (43), San Francisco, October, 1993.

"Non-Intrusive Crack Detection in Clay Landfill Liners," Proceedings International Symposium on Engineering Hydrology, San Francisco, CA., July, 1993, 491-496.

"Scaling Laws of Gravity Driven Fingering During Organic Liquid Infiltration," (with B.P. Tullis), Proceedings International Symposium on Engineering Hydrology, San Francisco, CA., July, 1993, 31-36.

"Criticality of Density Intrusions," (with D. Paez-Rivadeneira), Proceedings ASCE National Hydraulic Engineering Conference, 1993, Vol 1, 845-850.

"Limitations of Reduced Scale Testing on Parshall Flumes," Proceedings ASCE National Hydraulic Engineering Conference, 1993, Vol. 2, 1464-1469.

"The Imaging of Wetting Front Instabilities in Porous Media Using Neutron Radioscopy," (with B.P. Tullis and J.T. Lindsay), Proceedings 4th World Conference on Neutron Radiography, San Francisco, CA., May, 1992, 363-372.

"A Summary of Neutron Radiography and Neutron Radioscopy Applications at the University of Michigan Phoenix Memorial Laboratory," with J.T. Lindsay and others, Proceedings 4th World Conference on Neutron Radiography, San Francisco, CA., May, 1992, 325-332.

"Limitations to Standard Parshall Flume Calibrations," (with Bahram Taheri), Proceedings National Conference on Hydraulic Engineering, San Diego, Ca, 1990, pp. 915-920.

"Vertical Transport in the Vadose Zone by Fingering," Proceedings of The International Symposium on the Hydraulics/Hydrology of Arid Lands, San Diego, Ca, 1990, pp. 725-730.

"Density Current Propagation in Flowing Receiving Fluid," (with Y. Kim and J. Buehler), Proceedings of the International Conference on Physical Modeling of Transport and Dispersion, Boston, MA, 1990, pp. 12A19-12A24.

"The Effects of Downstream Conditions on Mixing in Buoyant Surface Jets," Proceedings of the International Conference on Physical Modeling of Transport and Dispersion, Boston, MA, 1990, pp. 11A27-11A32.

"Air Intrusions into Ducted Flows," (with J. Buhler), Proceedings of the International Conference on Physical Modeling of Transport and Dispersion, Boston, MA, 1990, pp. 12A25-12A30.

"Interplay of Ambient Diffusion and Jet Mixing from Diffuser Discharge", Proceedings of the ASCE Hydraulics Division Specialty Conference, Jackson Mississippi, pp. 189-198, 1982.

"Matched Impedance to Control Fluid Transients" (with E.B. Wylie and L.B. Taplin), Preprint 82-WA/DSC-4 ASME Winter Annual Meeting, 1982.

"Estimating Seepage Through Clay Covers on Hazardous Waste Landfills", (with C.P. Miller), Chapter 22, *Hazardous Waste Management for the 80's*, 1982, Ann Arbor Science, pp. 343-357. Proceedings 2nd Ohio Environmental Engineering Conference.

"Seepage Through Clay Covers on Landfills" (with U.W. Stoll and G.H. Evans), Preprint, ASCE National Convention, Las Vegas, Nevada, 1982.

"Buoyant Discharge from Outfall Diffuser into Stratified Fluid", (with R.B. Wallace, and D.R. Wong), Proceedings 2nd IAHR Symposium on Stratified Flows, Trondheim Norway, pp. 871-880, 1980.

"Buoyant Jet Behavior Near Maximum Height of Rise", (with R.B. Wallace), Proceedings of the ASCE Hydraulics Division Specialty Conference, Chicago, Illinois, pp. 356-365, 1980.

"An Entrainment Model for Buoyant Jet Discharges", Proceedings, Heat Transfer and Fluid Mechanics Conference, Pullman, Washington, pp. 313-329, 1978.

"Effects of Ambient Current and Density Stratification on Buoyant Jets", Proceedings of the ASCE Hydraulics Division Specialty Conference, College Station, Texas, pp. 336-343, 1977.

"Analysis of Flow in Channels with Gravel Beds", (with J.A. Roberson), Proceedings of the ASCE Hydraulics Division Specialty Conference, Bozeman, Montana, pp. 63-72, 1973.

Other Publications

Wright, S.J., Determan, K.V., Vargas, S.M., (2010). "Transient Pressures from Compression of Discrete Air Pockets in Rapidly Filling Combined Sewer Storage Tunnels." Report UMCEE2010-4, Univ. of Mich., Civil and Env. Engrg. Dept. August 2010.

"Physical Model Investigation of Air Release through Riser in Proposed District of Columbia CSO Storage Tunnel," J.W. Lewis, S.J. Wright, and J.G. Vasconcelos, Report UMCEE09-06, December, 2009.

"Summary of "Geyser" Research Experiments Conducted in the Fall of 2008 at the University of Michigan Hydraulics Lab," J.W. Lewis, S.J. Wright, and J.G. Vasconcelos, Report UMCEE09-02, February, 2009.

"Physical Model Investigation of Sediment Deposition and Circulation Patterns for Kalamazoo Lake (a.k.a. Saugatuck Harbor)" J.W. Lewis and S.J. Wright, Report UMCEE08-05, November, 2008.

"Physical Model Study, CSO Diversion through Bottom Outlet Slot, Site DS-4, Upper Rouge Tunnel System," James W. Lewis and Steven J. Wright, Report UMCEE07-01, May, 2007

"Surge Dynamics within Vertical Shafts in Stormwater Collection Systems," J.W. Lewis and S.J. Wright, Report UMCEE06-05, August 2006.

"Hydraulic Model Study Genesee County Northeast Extension Sewer Contract 2B Pumping Station," S.J. Wright, E. Jahani and N. Klueter, Report UMCEE 05-08, August 2005

"Hydraulic Model Study East Dearborn CSO Control Program CSO Outfall 017," S.J. Wright, M. Holcomb and M. Konieczki, Report UMCEE 05-07, June 2005.

"Experimental investigations on rapid filling of empty pipelines" Jose G. Vasconcelos Steven J. Wright and Mokhtar Guizani Report UMCEE-05-01, January, 2005.

"Hydraulic Model Study Wyandotte Wastewater Treatment Plant Influent Pump Station Wet Well Comparison of Existing and Original Wet Well Configurations," S.J. Wright, and M. Konieczki, Report UMCEE 04-06, June, 2004.

"Air Intrusion on Pipe-Filling Bores," J.G. Vasconcelos and S.J. Wright, Report UMCEE 04-01, April 2004.

- "Verification of EPA Plume Model UDKHDEN," Report to U.S. Environmental Protection Agency, through Limno-Tech Inc., 1989
- "Woodtick Peninsula Feasibility Study, Protection of Cooling Water Intake Channel, Consumer's Power, J.R. Whiting Plant," (with D.H. Gray) Report No. UMCE 89-10, The University of Michigan, Department of Civil Engineering, 1989.
- "Evaluation of Great Lakes Shore Protection Structures," (with T.D. Finley), Report No. UMCE 88-8, The University of Michigan, Department of Civil Engineering, 1988.
- "Hydraulic Model Study, Raw Wastewater Pumping Station No. 2A," (with D. Schlaepfer) Report No. UMCE 88-3, The University of Michigan, Department of Civil Engineering, 1988.
- "Hydraulic Model Study, Wastewater Influent Splitter Chamber," (with D. Schlaepfer and R. Al-Saigh) Report No. UMCE 88-2, The University of Michigan, Department of Civil Engineering, 1988.
- "Crack Detection in Clay Landfill Liners with Nonintrusive Measurements," Report to State of Michigan Toxic Substances Control Commission, Oct., 1987, 48 pp.
- "Assessment of EPA Plume Model UDKHDEN: Predictions in Stratified Ambient Fluids," Report to Woodward Clyde Consultants, January 2, 1987, (and addendum dated Feb. 21, 1987) 131 pp.
- "Aspects of Far Field Control on Buoyant Jet Mixing", Report R24-86, Institut für Hydromechanik und Wasserwirtschaft, ETH Zurich, Switzerland, 123 pp., 1986.
- "Problems with Estimates of Aquifer Dispersivities from Field Data", Course Notes on Methods for Evaluation of Groundwater Contamination Sites, Lansing Michigan, 40 pp., 1984.
- "Groundwater Modeling for East Bay Township, Michigan", (with C.P. Miller and E. Kluitenberg), Report to U.S. Coast Guard, 66 pp., 1984.
- "Groundwater Modeling: Selection, Testing and Use", Michigan Department of Natural Resources Report, Vol II, Appendices B and C, 1983 (Available through NTIS, PB83 143214).
- "Aquifer Dispersivities from Field Data: Contaminant Transport in Michigan Aquifers", Report to Michigan Department of Natural Resources, 49 pp. 1982.
- "Investigation of Contaminant Transport Parameters in Michigan Aquifers", Report to Michigan Department of Natural Resources, 60 pp., 1981.
- "Recommendations on Coolant System Design for Aircraft Generator Rotor", Final Report to Bendix Research Labs, with D.R. Wong, 45 pp., 1980.
- "Numerical and Experimental Modeling of Fuel Injection Systems", Final Report to Bendix Research Labs, with E.B. Wylie, 79 pp., 1979.
- "Effects of Ambient Crossflow and Density Stratification on the Characteristic Behavior of Round Turbulent Buoyant Jets", W.M. Keck Laboratory of Hydraulics and Water Resources Report No. KH-R-36, California Institute of Technology, Pasadena, California, 254 pp., 1977.