

Qin Qian, Ph. D,
Associate Professor

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EDUCATION

Ph.D. Civil Engineering, University of Minnesota, Minneapolis, Feb., 02/2008

Dissertation: *Solute exchange with sub-aqueous sediments: hydrodynamic interactions with advection flows induced by surface waves or bed forms*

M.S. Civil Engineering, University of Minnesota, Minneapolis, 09/2004

M.S.S. Software Engineering, University of St. Thomas, St. Paul, 12/2002

B.S. Hydrogeology & Engineering Geology, Nanjing University, China, 1994

PROFESSIONAL EXPERIENCE

- **Associate Professor**, (09/2014 – current), Lamar University, Civil Engineering, Beaumont, Tx
- **Assistant Professor**, (06/2008 – 08/2014), Lamar University, Civil Engineering, Beaumont, TX
- **Research Associate** (01/2008 – 05/2008), University of Minnesota, Saint Anthony Falls Laboratory (SAFL)
- **Civil Engineer** (08/2007 – 01/2008), HZ United, LLC, Plymouth, MN
- **Research/Teaching Assistant** (01/2003 – 01/2008), University of Minnesota, Saint Anthony Falls Laboratory (SAFL), Department of Civil Engineering
- **Lab Assistant** (02/2003 – 05/2003), University of Minnesota, Department of Geology and Geophysics
- **Research/Teaching Assistant** (07/1998 – 02/2000), Nanjing University, Department of Earth Science, China
- **Construction Engineer and Geotechnical Engineer** (06/1994 – 06/1998) Nanjing Construction Company, China

FUNDINGS

1. “Multiscale Characterization and Modeling of Concrete Materials under Marine Tropical Environments”, X. Fan (PI), Q. Qian (co-PI), D. Su (co-PI), \$35,000, Center for Advances in Port Management (CAPM), 02/2017–08/2018.
2. “Wake Wash in Sabine-Neches Waterway, Phase I”, V. Zaloom (PI), Q. Qian (co-PI) R. Yuan (co-PI), M. Jao (co-PI), X. Wu (co-PI), K. Wang (co-PI), \$99,742, Sabine-Neches River Waterway Navigation District, 11/2015–04/2017.
3. “Evaluation and Remediation of Water Contaminants Originating from Dredge Waste”, (PI: T. T. Nguyen (PI), P. Bernazzani (co-PI), Q. Qian (co-PI), and M. Jao (co-PI), \$25,000, Center for Advances in Water and Air Quality (CAWAQ), 02/2016–05/2017.
4. “Acquisition of Equipment to Develop a Ubiquitous Wireless Sensor Network for Measurement, Modeling, and Prediction in Water Resource Management”, B. Sun (PI), Q. Qian (co-PI), \$16,000, NSF URE, 09/2014 –08/2017.

5. “Acquisition of Equipment to Develop a Ubiquitous Wireless Sensor Network for Measurement, Modeling, and Prediction in Water Resource Management”, B. Sun (PI), Q. Qian (co-PI), \$200,000, NSF MRI, 09/2014–08/2017.
6. “A multidisciplinary Research using EM2 Geomodel for Hydraulic Structures and Golf Highway 87 Shoreline Protections”, Q. Qian (PI), M. Jao (co-PI), K. Aung (co-PI), \$15,000, Presidential Faculty Fellowships from Lamar University, 08/2014–05/2015.
7. “Experimental Investigation on the Sediment Transport Process in Shallow-Grade Culverts and Storm Sewers”, Q. Qian (PI), \$5,000, REG from Lamar University, 09/2014–08/2015.
8. “Ubiquitous Wireless Sensors Networks for Measurement, Modeling and Prediction in Water Resource Sustainability”, B. Sun (PI), Q. Qian (co-PI), \$5,000, REG from Lamar University, 09/2013–08/2014.
9. “Modeling the Sediment Transport in Rio Grande River” Q. Qian (PI), \$5,000, REG from Lamar University, 09/2011 – 08/2012.
10. “Hydraulic Performance of Rectangular Deck Drains” Q. Qian (PI) X. Liu (co-PI), M.E. Barrett (co-PI) and R. J. Charbeneau(co-PI), \$317,948, TxDOT, 09/2010 – 08/2012.
11. “Assessment of the Impact of Airborne Particulate Pollutants on the Rio Grande Basin Watershed” T.C. Ho (PI), Q. Qian (co-PI), \$145,000, U.S. Agriculture Department 09/2008 – 08/2013.
12. “Modeling the Solute Transport in the Interfacial Exchange Zone (IEZ)” Q. Qian (PI), \$5,000, REG from Lamar University, 09/2009 – 08/2010.

PUBLICATIONS

Journal Paper and Book Chapter

1. **Qian, Q.** and Saeid Eslamian, Chapter 20: Streamflow quality in low flow conditions, In: Saeid Eslamian, ed. *Handbook of Drought and Water Scarcity, Vol 3: analysis and Environmental*, Taylor and Francis Group, CRC press (in press)
2. **Qian, Q.**, Chapter II.1: Water Transport, In: Danial, C. Chen, ed. *Sustainable water Management and Technology, Volume II: 2016, p1-21*, Taylor and Francis Group, CRC press.
3. Clark, J. J., **Qian, Q.**, Voller, V. and Stefan, H., Hyporheic Exchange in a Gravel Bed with and without surface waves, *Advances in Water Resources* (under review)
4. **Qian, Q.**, Xinyu Liu, Michael E. Barrett and Randall J. Charbeneau, (2016) Physical Modeling on Hydraulic Performance of Rectangular Bridge Deck Drains, *Journal of Water*, 2016, 8(2), 67; doi:10.3390/w8020067
5. Bo Sun, Farhad Ahmed, Frank Sun, **Q. Qian** and Yang Xiao, (2016), Water quality monitoring using STORM 3 Data Loggers and a wireless sensor network, *Int. J. Sensor Networks, Vol. 20, No.1*.
6. **Qian, Q.**, (2015), Chapter 61: Groundwater Recharge and Unconventional water: Design and Management Criteria, In: Saeid Eslamian ed. *Handbook of Urban water Reuse*, Taylor and Francis Group, CRC press, p809-816.
7. **Qian, Q.**, (2014), Chapter 15: Sediment Pollution, In: Saeid Eslamian ed., *Handbook of Engineering Hydrology, Vol 3: Environmental and water management*, Taylor and Francis Group, CRC press, p315-327.
8. **Qin Qian**, Badri Parajuli, Qi Fu, Kaiming Yan, John L. Gossage, Thomas C. Ho, Assessment of Acid Deposition Effects on Water Quality of the Upper Rio Grande River Section in

Texas, *Journal of Water Resource and Protection*.2013,5, 792-800,
doi:10.4236/jwar.2013.58080

9. **Qian, Q.**, Voller, V. and Stefan, H., 2010, Can the “dispersion tensor model” for solute exchange in the sediment bed of a stream or lake be simplified? *Advances in Water Resources* 33 (2010) 1542–1550. DOI:10.1016/j.advwatres.2010.09.001
10. **Qian, Q.**, Voller, V. and Stefan, H., 2009, Modeling of vertical solute dispersion in a sediment bed enhanced by wave induced interstitial flow, *Journal of American Water Resources Association* 45(2): 343-354. DOI: 10.1111/j.1752-1688.2008.00297.x
11. **Qian, Q.**, Clark, J. J., Voller, V. and Stefan, H., 2009, A depth-dependent dispersion coefficient for modeling of vertical solute exchange in a lake bed under surface waves, *J. Hydr. Engrg. Volume 135, Issue 3, pp. 187-197*
12. **Qian, Q.**, Voller, V. and Stefan, H., 2008, A vertical dispersion model for solute exchange by underflow and periodic hyporheic flow in a stream grave bed, *Water Resour. Res.*, 44, W07422, doi:10.1029/2007WR006366.
13. **Qian, Q.** Stefan, H. and Voller, V. 2007, A physically based flux limiter for QUICK calculations of advective scalar transport, *International Journal for Numerical Methods in Fluids* 55:899-915
14. **Qian, Q.**, Voller, V. and Stefan, H., 2007, Modeling of solute transport into sub-aqueous sediment. *Journal of Applied Mathematics Modelling* 31, 1461-1478.
15. **Qian, Q.**, Xiaofang Mu, Yuntao Lu, 2000, Research on the Application of Pulverized Fuel Ash to Mortar in Building Work, *Journal of Architecture Technology*, 31(5), 320-321
16. Tan Qu-lin, Zhai Jian-ping, Zhou Wei-ke and **Qin Qian**, 1999, Analysis of toxic element in the vegetable growing in the soil mixed with coal ash. *Geological Journal of China universities*, 3, 298-305
17. Xiaoyun Chen, Yongjun Wu and **Qin Qian**, 1997, Comprehensive application of new construction technology Jinsili Tall Building in Nanjing, *Journal of Construction Technology*, 26(9), 40-41.

Invited Talks, Abstracts, Presentations and Conference Proceedings

1. **Qin Qian**, Summary on Modeling hydrodynamics and solute transport through fractured porous Media, *China Petrochemical Corporation, Beijing, China, June29, 2016.*
2. **Qin Qian**, Solute Exchange between Surface Water and Sub-aqueous Sediments, *ShanDong University of Technology and Science, Qindao, ShanDong, China, June 7, 2016.*
3. **Qin Qian**, Mien Jao, Jeremiah Fox, Experimental Study on Shoreline Erosion using EM2 Geomodel. *American Society of Civil Engineering EWRI congress conference, May 22-26, 2016, West Palm Beach, FL.*
4. Bo Sun, Frank Sun, and **Qin Qian**, Development of Wireless Sensor Networks (WSNs) for Water Quality Monitoring *American Society of Civil Engineering EWRI congress conference, May 22-26, 2016, West Palm Beach, FL.*
5. **Qin Qian**, and Kaiming Yan, Assessment of Channel Change of the Lower Rio Grande River Section under different climate conditions, *American Society of Civil Engineering EWRI congress conference, May 17-21, 2015, Austin, TX.*
6. Bo Sun, Frank Sun and **Qin Qian**, Deployment of STORM 3 DATA loggers to Monitor Water Quality, *American Society of Civil Engineering EWRI congress conference, May 17-21.2015, Austin, TX.*

7. Milad Ketabdar, Kyle Storm, and **Qin Qian**, A Literature Review on the Sediment Transport Process in Shallow-Grade Culverts and Storm Sewers, *2015 ASEE Gulf-Southeast Annual Conference, March 25-27, San Antonio, TX.*
8. **Qin Qian**, Vaughan R. Voller and Heinz G. Stefan, Modeling of Solute Transport in Pore Scale Sediment Beds: A Summary of Hydrodynamic Interactions Induced by Surface Wave, Bed Form and Near Bed Turbulence, *American Society of Civil Engineering EWRI congress conference, June 1-5, 2014, Portland, OR.*
9. Bo Sun, Farhad Ahmed, Francisco Retiz, and **Qin Qian**, Development and Implementation of Wireless Sensor Networks (WSNs) for Measuring Water Quality, *American Society of Civil Engineering EWRI congress conference, June 1-5, 2014 Portland, OR.*
10. Kendrick Aung, Rayn Underdown, **Qin Qian**, Vertical assessment of math competency among Freshmen and sophomore engineering students, *120th ASEE Annual Conference, June 23-26, 2013, Atlanta, GA.*
11. **Qin Qian**, Jeffrey J. Clark, Vaughan R. Voller and Heinz G. Stefan, Solute Transport in the Interfacial Exchange Zone (IEZ) of Gravel Stream Bed due to Turbulent and Water Surface Wave, *American Society of Civil Engineering EWRI Congress Conference, May, 2013, Cincinnati, OH.*
12. **Qin Qian**, Kaiming Yan, Jerry Lin, Pruek Pogprueksa, Thomas Ho, Modeling the Sediment Transport in the Big Bend National Park Region, *American Society of Civil Engineering EWRI Congress Conference, May, 2013, Cincinnati, OH.*
13. **Qian, Q.**, X. Liu, M. E. Barrett, and R. J. Charbeneau, Physical Modeling Study on Hydraulic Performance of Rectangular Deck, *American Society of Civil Engineering EWRI Congress Conference, May, 2012, Albuquerque, NM.*
14. **Qian, Q.**, Chanachok Chokwitthaya, Jerry Lin, Jack Hopper, and Thomas Ho, Effect Of Acid Deposition On Water Acidity and Sediment Loading in the Upper Rio Grande River Sub-Basin, *Sea and Land Grant Conference, Feb. 2012, Portland, OG.*
15. **Qian, Q.**, Parajuli, B., Prinsloo, L., Lin, J., Hopper, J., and Ho, T., Effect of Airborne Deposition on Water Acidity in the Rio Grande River Basin, *American Society of Chemical Engineering Conference, October, 2011, Minneapolis, MN.*
16. Santosh V. Khonde, **Qin Qian**, Hydraulic performance of the bridge deck drain, *American Society of Engineering Education Gulf Southeast annual conference, March 2011, Houston, TX.*
17. **Qin Qian**, Jerry Lin, Hsing-wei Chu, Paul Chiou, and Thomas Ho, Assessment and Modeling the Effect of Airborne Deposition on the Acidity of the Rio Grande River, *Sea and Land Grant Conference, January 31-February 1, 2011, Washington D. C.*
18. Thomas Ho, **Qian, Q.**, Lin, J., Chu, H., Chiou, P. and Ho, T., The Impact of Airborne Particulate Pollutants on the Water Quality in Rio Grande Basin Watershed, *Rio Grande Basin Initiatives, May 2010, Alpine, TX.*
19. **Qian, Q.**, Parajuli, B., Lin, J., Chu, H., Chiou, P. and Ho, T., Assessment of the Impact of Airborne Particulate Pollutants on the Water Quality in Rio Grande Basin Watershed, *Sea and Land Grant Conference, Feb 21-25. 2010, Hilton Head, SC.*
20. **Qian, Q.**, Voller, V. and Stefan, H., Solute Transfer by Pressure Induced Flows into the Sediment Beds of Streams and Lakes, *American water resource association fall conference, Nov., 2008, New Oranel, LA.*

21. **Qian, Q.**, Voller, V. and Stefan, H., Solute Transfer by Advective Flows into the Sediment Beds of Streams and Lakes, *Minnesota Supercomputing Institution, April, 2008, Minneapolis, MN.*
22. **Qian, Q.**, Voller, V. and Stefan, H., Towards a management model for assessing the effects of stream modifications on hyporheic exchange, *National Center for Earth Surface Dynamics (NCED) video conference, April, 2007, Minneapolis, MN.*
23. **Qian, Q.**, Voller, V. and Stefan, H., Enhancement of solute transfer into riverbeds by surface wave motion and hyporheic flow, *St. Anthony Fall Laboratory (SAFL) seminar, April, 2006, Minneapolis, MN.*
24. **Qian, Q.**, Voller, V. and Stefan, H., Enhancement of solute transfer into riverbed by wave motion and hyporheic flow, *American Geology Union (AGU) fall meeting, December, 2005, San Francisco, CA.*
25. **Qian, Q.**, Voller, V. and Stefan, H., Enhancement of solute transfer into riverbeds by wave motion, *National Center for Earth Surface Dynamics (NCED) site visit, August, 2005, Minneapolis, MN.*

HONORS AND AWARDS

1. **“First Place Award”** for Faculty Sponsor in Undergraduate Research Expo, Lamar University, 2016
2. **“James M. Robbins” Excellence in Teaching Award**, Chi-Epsilon (The National Civil Engineering Honor Society) Southwest District, 2012
3. **Fellow, ASCE’s Excellence in Civil Engineering Education (ExCEED)**, 2012.
4. **University Merit Award** for Outstanding Young Professor, Lamar University, 2012
5. **Marquis Who’s Who in America**, 64th Edition, 2010
6. **Montclair Who’s Who** (2009)
7. **Excellent International Instructor**, Center for Learning and Teaching Services, University of Minnesota (2005)
8. **Advanced Science Prize (Application Division)**, Second Prize, Education Department, China (1999)
9. **Advanced Science & Technology Award**, Third Prize, Nanjing Science Committee (1998)
10. **Best Paper Award**, First Prize, Nanjing Construction Committee (1998)
11. **Best Paper Award**, Second Prize, Jiangsu Construction Committee (1998)

PROFESSIONAL ACTIVITIES AND AFFILIATIONS

1. National Science Foundation Panel reviewer for the Water Quality/Pollution Control Unsolicited Spring Panel (P091361) May II-12,2009
2. Technical Assistant of the Technical Advisory Panel for the Research Management Committee 5 (RMC-5) of the Texas Department of Transportation (2008-Current)
3. Board Member for the Gulf Coast Recovery and Protection District.
4. Judge for the 1st International Sustainable World (Energy, Engineering, & Environment) Project Olympiad Competition, Houston, Texas, 2009
5. Committee Member of ASCE Groundwater Hydrology Committee
6. Member of American Society of Civil Engineers(ASCE) , 09/2004~current
7. Member of American Geophysical Union(AGU), 06/2005~current
8. Member of Overseas Chinese Environmental Engineers and Scientists Association (OCEESA), 05/2009~current

9. Member of Chi Epsilon, Honor Society of ASCE, 05/2010~ current
10. Member of Chinese American Water Resources Association (CAWRA), 05/2012~current
11. Director of Overseas Chinese Environmental Engineers and Scientists Association (OCEESA), 2015~2017
12. National Council Member of Chinese Institute of Engineer/USA, 2016~2018
13. Co-chair of geometric design and drainage design section for the World Transport Convention 2017, Beijing.
14. Co-editor of special issue of journal of water on “water quality modeling and monitoring on lake”.