

# Dipankar Dwivedi

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## Curriculum Vitae

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### Education

- 2007–2012 **Ph.D.**, *Texas A&M University*, College Station, Texas.  
◊ Biological & Agricultural Engineering  
◊ Dissertation: *Texas Water Resources: Vulnerability from Contaminants*
- 2003–2005 **M.Tech.**, *Indian Institute of Technology*, Kanpur, India.  
◊ Environmental Engineering & Management  
◊ Dissertation: *Particulate Emission Characterization of a Biodiesel vs Diesel-Fuelled Compression Ignition Transport Engine: A Comparative Study*
- 1999–2003 **B.Tech.**, *Indian School of Mines*, Dhanbad, India.  
◊ Mining Engineering  
◊ Dissertation: *A Seismic Characterization of Sedimentary Rocks to Investigate Subsurface Structures in Singhbhum*

### Research Experience

- Jan. 2015–present Postdoctoral Fellow, *Lawrence Berkeley National Laboratory*, Berkeley, California.  
◊ **Scientific Focus Area (SFA 2.0)**  
– Studied and modeled coupled carbon and nitrogen cycling in the hyporheic zone  
– Developed a simulation framework for investigating hydrology and watershed biogeochemistry  
– Developed and examined scale aware parametrization for exploring hydrology and watershed biogeochemistry from meanders to watershed scales
- Jan. 2015–present Postdoctoral Fellow, *Lawrence Berkeley National Laboratory*, Berkeley, California.  
◊ **Interoperable Design of Extreme-scale Application Software (IDEAS)**  
– Modeled hydrological and biogeochemical cycling in the Colorado River System  
– Developed a framework for benchmarking hydrology and watershed biogeochemistry using different reactive transport simulators

- Oct. 2012–Dec. 2014 Postdoctoral Fellow, *Lawrence Berkeley National Laboratory*, Berkeley, California.
- ◇ **Next-Generation Ecosystem Experiments**
  - Studied and modeled soil C dynamics for Arctic Ecosystems
  - Investigated soil carbon interactions with minerals, microbial processes, and transport
  - Investigated temperature sensitivity of soil organic carbon decomposition
- Jan. 2007–Aug. 2012 Graduate Research Assistant, *Texas A&M University*, College Station, Texas.
- ◇ **Modeling fate and transport of nitrate and *E.coli* in the subsurface**
  - Identified biotic and abiotic controls for vulnerability of water resources from contaminants
  - Characterized spatial and temporal variability of nitrate in groundwater
  - Developed a hybrid stochastic-deterministic modeling framework for nitrate transport in the subsurface
- Sept. 2005–Oct. 2005 Environmental Engineer, *Vedanta Resources PLC*, Udaipur, India.
- Conducted “Environmental Impact Assessment” (EIA) in conjunction with external agencies

## Research Interests

- ◇ Biogeochemistry of coupled carbon and nitrogen cycles in soil
- ◇ Hydrology and biogeochemistry at higher latitudes
- ◇ Fate and transport of contaminants in the subsurface
- ◇ Scaling of processes and parameters
- ◇ Uncertainty quantification
- ◇ Parameter estimation
- ◇ Groundwater modeling
- ◇ Watershed hydrology

## Modeling Tools and Skills

### Modeling Packages

**Groundwater Models:** MODFLOW, MT3DMS

**Subsurface Reactive Transport Models:** PFLOTRAN, TOUGHREACT, HYDRUS

**Watershed Models:** SWAT, BASINS

### Other Packages

iTOUGH, Parameter ESTimation (PEST), MATLAB, COMSOL Multi-physics, R, LOAD-EST, SGeMS, ArcGIS, Surfer, SPSS, L<sup>A</sup>T<sub>E</sub>X, Tikz

## Programming Languages

C, Python, Visual Basic, Fortran, Shell Programming (BASH), Experience in cluster computing & supercomputing

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## Publications

### Refereed Publications

1. **Dwivedi, D.**, B. Dafflon, B. Arora, H.M. Wainwright, and S. Finsterle (2015), Spatial Analysis and Geostatistical Techniques, in Handbook of Applied Hydrology, McGraw-Hill (Book chapter, submitted).
2. **Dwivedi, D.**, W.J. Riley, M.S. Torn, N. Spycher, and J.Y. Tang (2015), Mineralogy, microbes, transport, and plant-input profiles control vertical distribution and age of soil carbon stocks (submitted to *Biogeosciences*).
3. **Dwivedi, D.**, B.P. Mohanty, and B.J. Lesikar (2015), *E. coli* Fate and Transport of *E. coli* in the Subsurface in a Linked Surface Water-Soil Water-Ground Water System (submitted to *ASABE*).
4. **Dwivedi, D.** and B.P. Mohanty (2015), Hot Spots and Persistence of Nitrate in Aquifers across Scales, *Entropy*, (*in review*).
5. **Dwivedi, D.** and B.P. Mohanty (2015), Modeling nitrate in Texas groundwater across various scales, *Water Resources Research*, (*in review*).
6. Arora, B., H.M. Wainwright, **D. Dwivedi**, S.S. Hubbard, and C.I. Steefel (2014), Assessment of time-scale dependence of geochemical variables at a uranium mill tailings site, *Environmental Modelling & Software*, (*in review*).
7. **Dwivedi, D.**, B. Arora, S. Mollins, and C.I. Steefel (2015), Reactive transport models and their benchmark activities, in Groundwater Research on Exploration, Assessment, Modelling and Management of Groundwater Resources and Pollution, Taylor and Francis/CRC Press (Book chapter, in press).
8. Tinnacher, R., **D. Dwivedi**, W. Stringfellow, M. Reagan, C. Varadharajan, J. Birkholzer (2015), Hydraulic fracturing from the groundwater perspective, in Groundwater Research on Exploration, Assessment, Modelling and Management of Groundwater Resources and Pollution, Taylor and Francis/CRC Press (Book chapter, in press).
9. Riley, W.J., F.M. Maggi, M. Kleber, M.S. Torn, J.Y. Tang, **D. Dwivedi**, and N. Guerry (2014), Long residence times of rapidly decomposable soil organic matter: application of a multi-phase, multi-component, and vertically resolved model (BAMS1) to soil carbon dynamics, *Geoscientific Model Development*, vol. 7, 1335-2014, doi:10.5194/gmd-7-1335-2014.
10. Brender, J.D., P.J. Weyer, P.A. Romitti, B.P. Mohanty, M.U. Shinde, A.M. Vuong, J.R. Sharkey, **D. Dwivedi**, S.A. Horel, J. Kantamneni, J.C. Huber Jr., Q. Zheng, M.M. Werler, K.E. Kelley, J.S. Griesenbeck, F.B. Zhan, P.H. Langlois, L. Suarez, and M.A. Canfield (2013), Prenatal nitrate intake from drinking water and selected birth defects in offspring of participants in the national birth defects prevention study, *Environmental*

*Health Perspectives*, vol. 121:1083-1089, doi:10.1289/ehp.1206249.

11. **Dwivedi, D.**, B.P. Mohanty, and B.J. Lesikar (2013), Estimating *Escherichia coli* loads in streams based on various physical, chemical, and biological factors, *Water Resources Research*, vol. 49, 2896-2906, doi:10.1002/wrcr.20265.
12. **Dwivedi, D.**, A.K. Agarwal, and M. Sharma (2006), Particulate emission characterization of a biodiesel vs. diesel-fuelled compression ignition transport engine: A comparative study, *Atmospheric Environment*, vol. 40, 5586-5595, doi: 10.1016/j.atmosenv.2006.05.005.
13. Bharathi, K.V.L., **D. Dwivedi**, M. Sharma, and A.K. Agarwal (2005), Diesel exhaust particulate characterization for poly aromatic hydrocarbons and benzene soluble fraction, *SAE Technical Paper*, 2005-26-348, doi: 10.4271/2005-26-348.

### Non-Peer-Reviewed Publications

14. **Dwivedi, D.**, W.J. Riley, and J.Y. Tang (2015), Carbon saturation affects soil C dynamics? Proceedings, TOUGH Symposium 2015, Lawrence Berkeley National Laboratory, Berkeley, California, September 28-30, 2015, 476-482.
15. Arora, B., **D. Dwivedi**, N.F. Spycher, and C.I. Steefel (2015), Modeling carbon fluxes from a biogeochemical hotspot in a floodplain aquifer, Proceedings, TOUGH Symposium 2015, Lawrence Berkeley National Laboratory, Berkeley, California, September 28-30, 2015, 456-463.

### Reports and White-Papers

1. V. Bailey, P.J. Hanson, J. Jastrow, M.S. Torn, and D. Stover (2014), Data-Model Needs for Belowground Ecology, A Summary Report from the TES Mini-Workshop held May 8, 2014. (helped in writing and making conceptual framework)
2. **Dwivedi, D.**, B.P. Mohanty, and B.J. Lesikar (2009), Develop an understanding and systematically investigate the transport and fate of *E. coli* in Lake Granbury, Texas Water Resources Institute (TWRI).

### Conference proceedings

1. **Dwivedi, D.**, C.I. Steefel, B. Arora, G. Bisht, K.H. Williams (2015), The Role of Hyporheic Zones in Cycling of Carbon and Nitrogen, will be presented at 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 Dec. (*oral presentation*)
2. Riley, W.J., **D. Dwivedi**, B. Ghimire, F. M. Hoffman, G.S.H. Pau, J.T. Randerson, C. Shen, J.Y. Tang, Q. Zhu (2015), Improving predictions of large scale soil carbon dynamics: Integration of fine-scale hydrological and biogeochemical processes, scaling, and benchmarking, will be presented at 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 Dec. (*Invited talk*, will be delivered by W.J. Riley)
3. Versteeg, R., R. Soltanian, D. Johnson, **D. Dwivedi**, A. Tran (2015), A Cloud Based Framework For Monitoring And Predicting Subsurface System Behaviour, will be presented at 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 Dec.
4. Dwivedi, D., W.J. Riley, and J.Y. Tang (2015), Carbon saturation affects soil C dynamics? presented at TOUGH Symposium 2015, Lawrence Berkeley National Laboratory, Berkeley,

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- California, 28-30 Sep. (*oral presentation*)
5. **Dwivedi, D.**, C.I. Steefel, B. Arora, G. Bisht (2015), Impact of Hyporheic Zone on Biogeochemical Cycling of Carbon, presented at 2015 Goldschmidt, Prague, Czech Republic, 16-21 Aug. (*oral presentation*, delivered by C.I. Steefel)
  6. **Dwivedi, D.**, W.J. Riley, M.S. Torn, N. Spycher, F. Maggi, and J. Tang (2015), Mechanistic Representation of Soil C Dynamics for Grassland Ecosystems, presented at Modeling Forum, Earth Sciences Division, LBL, Feb. 11, 2015. (*oral presentation*)
  7. **Dwivedi, D.**, W.J. Riley, M.S. Torn, J. Six (2015), Relative importance of sorption versus aggregation over soil carbon stocks, presented at 2015 SIAM, Stanford University, CA, 29 Jun - 2 Jul.
  8. Arora, B., **D. Dwivedi**, S.S. Hubbard, C.I. Steefel, and K.H. Williams (2015), Towards improved characterization of geochemical hot moments: A combined wavelet-entropy approach, presented at 2015 SIAM, Stanford University, CA, 29 Jun - 2 Jul. (*oral presentation*, delivered by B. Arora)
  9. Riley, W.J., **D. Dwivedi**, K. Georgiou, J. Tang, and M.S. Torn (2015), Explicitly representing microbes, mineral interactions, and tracer transport to predict depth-resolved SOM dynamics: A component of the LBNL TES SFA, presented at 2015 Environmental System Science (PI) Meeting, Potomac, 28-29, Apr.
  10. Riley, W.J., N. J. Bouskill, B. Ghimire, C.D. Koven, J. Tang, and **D. Dwivedi** (2015), Mechanistic treatment of plant N use, root-microbe competition, and microbial processes improves high latitude and global ecosystem carbon budget predictions, presented at 2015 Environmental System Science (PI) Meeting, Potomac, April 28-29, 2015.
  11. Versteeg, R., B. Dafflon, **D. Dwivedi**, D. Johnson, A. Rodzianko, and R. Soltanian (2015), Cloud based predictive assimilation framework for subsurface site management, presented at 2015 Environmental System Science (PI) Meeting, Potomac, 28-29, Apr.
  12. **Dwivedi, D.**, W.J. Riley, M.S. Torn, and N. Spycher (2014), Mineralogical controls over carbon storage and residence times in grassland soils, presented at 2014 Fall Meeting, AGU, San Francisco, CA, 15-19 Dec. (*oral presentation*)
  13. **Dwivedi, D.**, W.J. Riley, M.S. Torn, N. Spycher, and F. Maggi (2014), Mineralogical controls over soil carbon stocks and dynamics, presented at 2014 NGEE All-Hands Meeting, San Francisco, CA, 13-14 Dec.
  14. Riley, W.J., J. Tang., **Dwivedi, D.**, M.S. Torn, F.M. Maggi, and M. Kleber (2014), Emergent SOM dynamics considering interactions between microbial physiology, microbial competition, mineral interactions, vertical transport, and temperature, presented at 2014 Fall Meeting, AGU, San Francisco, CA, 15-19 Dec. *Invited talk*, delivered by W.J. Riley)
  15. Arora, B., H.M. Wainwright, **D. Dwivedi**, C.I. Steefel, E. Brodie, A. Navarre-Sitchler, R. Prugue, A. Kenwell, K.H. Williams, and S.S. Hubbard (2014), Characterizing biogeochemical hot spots and hot moments in a floodplain system, presented at 2014 TES SBR PI Meeting, Potomac, 6-7 May.
  16. **Dwivedi, D.** and B.P. Mohanty (2014), Entropy-based analysis for spatio-temporal variability of nitrate in Texas aquifers across multiple scales, presented at 2014 ASA-

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- CSSA-SSSA International Annual Meeting, Long Beach, CA, 2-5 Nov. (*oral presentation*)
17. Riley, W.J., M.S. Torn, J. Tang, **D. Dwivedi**, F. Maggi, and M. Kleber (2014), Mineral interactions, microbial processes, and transport explain long residence times of rapidly decomposable deep soil organic matter, presented at 2014 Complex Soil Systems Conference, Berkeley, CA, 3-5 Sept. (*Invited talk*, delivered by W.J. Riley)
  18. Riley, W.J., M.S. Torn, J. Tang, **D. Dwivedi**, F. Maggi, and M. Kleber (2014), Long residence times of rapidly decomposable soil organic matter: a mechanistic modeling study, presented at 2014 Goldschmidt, Sacramento, CA, 8-13 Jun. (*Invited talk*, delivered by W.J. Riley)
  19. **Dwivedi, D.**, W.J. Riley, B. Ghimire, G. Bisht, J. Tang, and M.S. Torn (2014), Modeling controls on the decomposition of Soil Organic Matter, presented at 2014 TES SBR PI Meeting, Potomac, 6-7 May.
  20. **Dwivedi, D.**, W.J. Riley, and G. Bisht (2013), Mechanistic representation of soil C dynamics for Arctic Ecosystems, presented at 2013 Fall Meeting, AGU, San Francisco, CA, 9-13 Dec.
  21. **Dwivedi, D.**, W.J. Riley, G. Bisht, and G. Hammond (2013), Mechanistic representation of soil C dynamics for Arctic Ecosystems, NGEA Arctic Planning Meeting, San Francisco, CA, 7-8 Dec.
  22. Riley, W.J., F.M. Maggi, M. Kleber, M.S. Torn, J.Y. Tang, **D. Dwivedi**, and N. Guerry, N. (2013), Long residence times of rapidly decomposable soil organic matter: application of a new multi-phase, multi-component, and vertically-resolved model for soil carbon dynamics, NGEA Arctic Planning Meeting, San Francisco, CA, 7-8 Dec.
  23. Bisht, G., W.J. Riley, **D. Dwivedi**, and G. Hammond (2013), Modeling soil organic matter dynamics for NGEA-Arctic at different spatial scales, presented at 2013 18<sup>th</sup> Annual CESM Workshop, Breckenridge, CO, 17-20 June.
  24. **Dwivedi, D.** and B.P. Mohanty (2012), On developing a conceptual modeling framework for nitrate transport in the subsurface, presented at 2012 Fall Meeting, AGU, San Francisco, CA, 3-7 Dec.
  25. Riley, W.J., F.M. Maggi, **D. Dwivedi**, N. Guerry, M.S. Torn, and M. Kleber (2012), Modeling fine-scale soil organic matter dynamics for NGEA-Arctic, presented at 2012 Next-Generation Ecosystem Experiments (NGEA Arctic) Planning Meeting, Berkeley, CA, 1 Dec.
  26. Mohanty, B.P., **Dwivedi, D.**, I. Mendoza-Sanchez, and J. D. Brender (2012), A Physically based modeling of nitrate levels in ground water (local scale), presented at RCN Human Health Conference Outline Impacts of Excess Nitrogen in the Environment on Human Health, Bethesda, MD, 14-15 Nov.
  27. **Dwivedi, D.** and B.P. Mohanty (2011), Addressing uncertainty in contaminant transport in groundwater using the ensemble Kalman filter, presented at 2011 Fall Meeting, AGU, San Francisco, CA, 5-9 Dec.
  28. **Dwivedi, D.** and B.P. Mohanty (2011), Spatio-Temporal variability of nitrate in Texas Aquifers across different scales, presented at 2011 ASA-CSSA-SSSA International Annual

- Meeting, San Antonio, TX, 16-19 Oct. (*oral presentation*)
29. **Dwivedi, D.** and B.P. Mohanty (2010), Spatio-Temporal variability of nitrate across scales in Texas Aquifers, presented at 2010 Fall Meeting, AGU, San Francisco, CA, 13-17 Dec.
  30. **Dwivedi, D.** and B.P. Mohanty (2009), Modeling nitrate in Texas groundwater at regional & aquifer scales, presented at 2009 Fall Meeting, AGU, San Francisco, CA, 14-18 Dec.
  31. **Dwivedi, D.** and B.P. Mohanty (2008), Using ANN to predict *E. coli* accumulation in coves based on interaction amongst various physical, chemical and biological factors, presented at 2008 Fall Meeting, AGU, San Francisco, CA, 15-19 Dec.
  32. **Dwivedi, D.**, B.P. Mohanty, and B.J. Lesikar (2008), *E. coli* fate and transport below subsurface septic tanks in Lake Granbury area, presented at 2008 ASA-CSSA-SSSA International Annual Meeting, Houston, TX, 5-9 Oct.
  33. Bharathi, K.V.L., **D. Dwivedi**, A.K. Agarwal, and M. Sharma (2004), Diesel exhaust particulates characterization for heavy metals, presented at IASTA Meeting and International Conference on Aerosols, Clouds and Indian Monsoon, IIT Kanpur, 15-17 Nov. (*oral presentation*, delivered by A.K. Agarwal)

## Teaching Interests

- ◇ Surface and subsurface hydrology
- ◇ Hydrogeology
- ◇ Watershed hydrology
- ◇ Water resources engineering
- ◇ Application of **Geographic Information System (GIS)**
- ◇ Biogeochemical cycles
- ◇ Fate and transport of contaminants in the environment
- ◇ Stochastic hydrology
- ◇ Environmental microbiology
- ◇ Mathematical modeling of physicochemical processes

## Teaching Experience

- Spring 2012 **ENGR 112 “Foundations of Engineering”**, *Texas A&M University*, College Station, Texas.
- Assisted in this freshman-level course for developing an autonomous well capping robot and programming with LabVIEW and SolidWorks
- Spring 2010 **GTA Certification**, *Texas A&M University*, College Station, Texas.
- Certification, Graduate Teaching Assistant Fellows Program by Graduate Teaching Academy

- Spring 2010 **BAEN 689 “Hydrology Across Scales”**, *Texas A&M University*, College Station, Texas.  
 – Taught stochastic processes and spectral analysis using Fourier and Wavelet Transform, including conducting laboratory exercises
- Fall 2009 **FRSC 653 “Programming with Arc objects and Visual Basic application”**, *Texas A&M University*, College Station, Texas.  
 – Taught programming using Arc objects in Visual Basic framework and graded assignments
- Fall 2004 **TA 101 “Engineering Graphics”**, *IIT Kanpur*, Kanpur, India.  
 – Graded assignments and helped students with tutorials

### Professional Development Workshops and Trainings

- Oct. 1 – Oct. 3, 2015 Participant, **iTOUGH2 Short Course**, Lawrence Berkeley National Laboratory, Berkeley, CA.
- May 8, 2014 Participant, **Mini-workshop on data-model needs for below-ground ecology**, *TES SBR PI Meeting*, Washington, DC.
- Mar. 6-7, 2013 Participant, **Carbon Capture Simulation Initiative (CCSI) workshop for reduced order models (ROMs)**, *Lawrence Berkeley National Laboratory*, Berkeley, California.
- Feb. 20-22, 2013 Participant, **CESM Land Model and Biogeochemistry Working Group Meetings**, *National Center for Atmospheric Research, Mesa Lab*, Boulder, CO.
- Dec. 7, 2011 Participant, **NASA Heliophysics Proposal Writing Workshop**, *NASA Headquarters Staff, AGU Fall Meeting*, San Francisco, California.
- Jul. 7, 2011 Participant, **COMSOL Multi-physics workshop**, *COMSOL Inc., Texas A&M University*, College Station, Texas.
- Jun. 6, 2011 Certified, **IRB Reference Resource Refresher Course (Ref # 5392709)**, *CITI Collaborative Institutional Training Initiative Human Research*, College Station, Texas.
- May 25, 2011 Certified, **Mentoring undergraduates in research**, *Office of Honors and Undergraduate Research, Texas A&M University*, College Station, Texas.
- 2010 Developer, **MATLAB toolbox to calculate Shannon Entropy, Mutual Information, and Conditional Entropy**, *Texas A&M University*, College Station, Texas.

- Jan. 20, 2010 Participant, **WebEx Training on Groundwater Modeling using Visual MODFLOW: The Waterloo Training Course Series**, Schlumberger Water Services.
- Jun. 1–Jun. 30, 2007 Participant, **SGP Cloud & Land Surface Interaction Campaign (CLASIC)**, U.S. Department of Energy's Atmospheric Research Measurement Program, Chickasha, Oklahoma.
- Nov. 29–Dec. 2, 2004 Participant, **BENMAP (The Environmental Benefits Mapping and Analysis Program)**, Environmental Protection Agency (USEPA) and Central Pollution Control Board (CPCB) India, New Delhi, India.

## Honors and Awards

- Spring 2012 Received **WAAIME Scholarship**, American Institute of Mining, Metallurgical, & Petroleum Engineers (AIME).  
 ◇ Scholarship given to students with outstanding credentials pursuing degrees in Earth Sciences
- Spring 2012 Received **Biological & Agricultural Engineering Graduate Scholarship**, Texas A&M University, College Station, Texas.  
 ◇ Scholarship given by the department to few selected students with outstanding credentials
- 2010 Received **Robert E. Stewart Graduate Excellence Award**, Biological & Agricultural Engineering Department, Texas A&M University, College Station, Texas.  
 ◇ Award given annually by the department to the best student for excellence in research
- 2010 Received **Graduate Student Research & Presentation Grant**, Office of Graduate Studies, Texas A&M University, College Station, Texas.  
 ◇ Travel grant given by the Office of Graduate Studies to few selected students with highest academic standing
- 2009–2010 Received **TWRI Mills Scholarship**, Texas Water Resources Institute, College Station, Texas.  
 ◇ A competitive research grant given by the Texas Water Resources Institute for carrying out research in water-related studies
- 2006–2007 Received **WMI Scholarship for Savannah River Site (SRS)**, Department of Energy (DOE).  
 ◇ A competitive research grant given by the Waste Management Institute for carrying out research in contamination in the subsurface
- 2003 Secured **all India rank 4 in**, Graduate Aptitude Test in Engineering (GATE), India.  
 ◇ Secured all India rank 4 for seeking admission in post graduate studies

## Professional Services

### Reviewed manuscripts for the following journals

- ◇ Water Resources Research
- ◇ Biogeosciences
- ◇ Vadose Zone Journal
- ◇ Journal of Hydrology
- ◇ Journal of Contaminant Hydrology
- ◇ Stochastic Environmental Research and Risk Assessment
- ◇ Journal of Earth System Science
- ◇ Water (MDPI)
- ◇ American Society of Agricultural and Biological Engineers

### Convened/Proposed Session(s)

- 14-18 Dec., 2015 **Convener**, Session titled “*Benchmarking Next-Generation Reactive Transport Models for Predicting Watershed Biogeochemical Cycling*”, 2015 Fall Meeting, San Francisco, California.  
(Co-conveners: **Dipankar Dwivedi** (LBNL), Sergi Molins (LBNL), Carl I. Steefel, (LBNL), and John D. Moulton (LANL))
- 15-19 Dec., 2014 **Convener**, Session titled “*Soil Organic Matter Dynamics: Novel Techniques, Big Data, and Functional Models*”, 2014 Fall Meeting, San Francisco, California.  
(Co-conveners: **Dipankar Dwivedi** (LBNL), Lifen Jiang (University of Oklahoma), and Margaret S. Torn (LBNL))
- 9-13 Dec., 2013 **Convener**, Session titled “*Soil Organic Matter Dynamics in the Anthropocene*”, 2013 Fall Meeting, San Francisco, California.  
(Co-conveners: Kate Lajtha (Oregon State University), **Dipankar Dwivedi** (LBNL), Bhavna Arora (LBNL), and William J. Riley (LBNL))

## Professional & Honorary Societies Affiliations

- 2008–present American Geophysical Union (*AGU*).
- 2008–present Soil Science Society of America (*SSSA*).
- 2011–present Alpha Epsilon, National Honor Fraternity for *Biological and Agricultural Engineering Department*.
- 2011–2012 Phi Kappa Phi ( $\Phi K \Phi$ ), National Honor Society for *all academic disciplines*.

## Service Activities

- 2015, Sept. Community Outreach Volunteer, **41<sup>th</sup> Annual Solano Avenue Stroll**, Lawrence Berkeley National Laboratory.

- 2014, Sept. Mentor to 12 junior class members from Albany High School, **ESD Reaching Out to High School Students**, Lawrence Berkeley National Laboratory.
- 2014, Sept. Community Outreach Volunteer, **40<sup>th</sup> Annual Solano Avenue Stroll**, Lawrence Berkeley National Laboratory.
- 2014–2015 Organizing Member, **Climate Sciences Brownbag Seminar Series**, Lawrence Berkeley National Laboratory.
- 2013–2014 Committee Member, **ESD postdocs survey development**, Lawrence Berkeley National Laboratory.
- 2010–2011 Committee Member, **Graduate Student Council Awards**, Texas A&M University.
- 2010–2011 Department Representative, **Graduate Student Council**, Texas A&M University.
- 2009 Subject Judge, **Soil hydrology/environment session**, *Student Research Week*, Texas A&M University.
- 2008–present Volunteer, **Marrow Donor Program**.
- 2008 Judge, **Ecological Integration Student Symposium**, Texas A&M University.
- 2007 Organization Volunteer, **5K race to raise awareness on a bacterial disease (necrotizing fasciitis)**, Texas A&M University.
- 2001–2002 Joint Secretary, **ISM Student Society**, ISM Dhanbad.