

# Newsha K. Ajami, Ph.D.

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Stanford University  
Director of Urban Water Policy

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<https://woods.stanford.edu/about/woods-faculty/newsha-ajami>

## **RESEARCH SPECIALTIES/INTEREST**

- Environmental science-policy interface and effective science communication
- Natural resources and water policy
- Integrated and sustainable water resource management
- Innovative Water Governance: financing, regulations and big data
- Assessment of uncertainty in water supply and flood forecasting
- Environmental impacts of Climate change
- Water-energy-food nexus
- Socio-economic impacts of forecast reliability

## **EDUCATION**

- 2003-2006 University of California at Irvine  
Ph.D. Civil and Environmental Engineering  
(Advisors: Soroosh Sorooshian and Qingyun Duan)
- 2000-2002 University of Arizona,  
M.S. Hydrology and Water Resources (System Engineering)
- 1993-1998 Tehran Polytechnic, Tehran, Iran  
Civil and Environmental Engineering

## **WORK EXPERIENCE**

- 2013-Present Director of Urban Water Policy, Water in the West/ERC-ReNUWIIt, Stanford University
- 2014-Present Lecturer, Stanford Public Policy Program
- 2013-Present San Francisco Bay Regional Water Quality Control Board member (Gubernatorial Appointment)
- 2011-2013 Senior Research Associate, Pacific Institute, Oakland, CA
- 2010-2011 California Science and Technology Policy Fellow, California State Senate Committee on Natural Resources and Water, Office of Honorable Senator Fran Pavley
- 2007- 2010 Research Consultant, Berkeley Economic Consulting, Inc.
- 2006- 2009 Postdoctoral Researcher, University of California, Berkeley, Dr. David Sunding and Dr. George Hornberger
- 2006 Visiting Scholar, Stanford University, Dr. Steve Schneider

## **HONORS AND AWARDS**

- 2016 Ten experts to watch on Urban Water Policy and Infrastructure, Water Deeply
- 2016 Member of the organizing committee for the White House Water Summit
- 2015 Water Recourses Research Editors' Citation for Excellence in Refereeing

2015	Member of Inaugural class of UC Irvine Engineering Hall of Fame
2015	Outstanding Undergrad Practicum Award from Public Policy Program
2013	Gubernatorial Appointee to SF Bay Regional Water Quality Control Board
2011	Water Leader, Water Education Foundation
2010-2011	Science and Technology Policy Fellow
2005	Invited scientist at AMS, Science Communication and the Mass Media Workshop
2005	AMS Science and Policy Colloquium Fellow
2004	Top 10 most-accessed articles, <i>Advances of Water Resources journal</i>
2004	Top 10 most-accessed articles, <i>Journal of Hydrology</i>
2000-2003	CSC-World Laboratory Hydrologic Science and Water Resources Fellowship

### **SERVICE ACTIVITIES**

- National Academy of Science and Engineering Appointee to the Decadal Survey for Earth Science and Applications from Space –Hydrology Panel
- Undergraduate Pre-Major Advisor at Stanford University
- Stanford In Government water program – Faculty mentor
- Organized five workshops at Stanford University
  - Water-Energy in the Baja California Region (May 2014)
  - Bay Area Regional Water Reliability Enhancement Workshop (Sep 2014)
  - Water Innovation Workshop (February, 2015)
  - Recycled Water & the “Yuck” Factor Forum: Shifting Public Attitudes about the Potable Uses of Storm and Waste Water (March 2015)
  - Water-energy nexus in the face of Climate Change (Oct 2015)
- Chair of the outstanding student award committee at American Geophysical Union (AGU)
- Conference session convener at AGU
- Organizing a seminar on applications of Modeling Water Resources Planning and Management in Iran, Tehran University, Tehran, Iran
- Organizing and teaching a two-day training course on water resources modeling software
- Steering Committee, Hydrologic Ensemble Prediction EXperiment (HEPEX)
- Manuscript Reviewer: Water Resources Research, Proceedings of the National Academy of Sciences, Journal of Hydrometeorology, Journal of Hydrology, Advances in Water Resources, Environmental Modeling and Software, Hydrological Processes, sustainability, Hydrology and Earth System Sciences
- Proposal Reviewer: NSF, NOAA, Natural Sciences and Engineering Research Council of Canada (NSERC), Netherlands Organisation for Scientific Research (NWO)
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### **PUBLICATIONS**

#### Refereed Publications

- Gonzales, P., **NK Ajami**, 2017. “Coordinating Water Conservation Efforts Through Tradeable Credits: A Proof of Concept for Drought Response in the California Bay Area”, Water Resources Research, *Under review*.
- Quesnel, K., **N.K. Ajami**, 2017. “Evaluation Of Residential Water Use Behavior Changes Linked to Heightened News Media Coverage of Drought”, ScienceAdvances, *Under review*.

- Quesnel, K., **N.K. Ajami**, N. Roby, P. Gonzales, 2017. “*Articulate: A New Way to Measure Media Coverage*”, Environmental Modeling and Software, *Submitted*.
- Quesnel, K., **N.K. Ajami**, 2016. “Advancing Water Innovation Through Increased Funding Resources: A Case Study Of End-User Fees In California’s Electricity Sector”, Utilities Policy, *Under review*.
- Quesnel, K., **N.K. Ajami**, 2016. “Accelerating the Integration of Distributed Water Solutions: A Conceptual Financing Model from the Clean Energy Sector”, Journal of Water Resources Planning and Management, *Under review*.
- Gonzales, P., **N.K. Ajami**, 2016. “The Changing Water Cycle: Impacts of an Evolving Supply and Demand Landscape on Urban Water Reliability in the Bay Area”, WIREs water, *Under review*.
- Ajami, N.K.**, G.M. Hornberger, D.L. Sunding, D.N. Yates, D.R. Purkey, 2016. “Economic Impacts of Hydrological Uncertainty on Management of Water Resources”, Water Resources Research, *Under review*.
- Gonzales, P., **N.K. Ajami**, 2017. “An Integrative Regional Resilience Framework for the Changing Urban Water Paradigm”, Sustainable Cities and Societies, 30, 128-138.
- Ulibarri N, B.E. Cain, **N.K. Ajami**, 2017. “A Framework for Building Efficient Environmental Permitting Processes”, Sustainability, 9(2):180.
- Gonzales, P., **N.K. Ajami**, 2015. “Urban Water Sustainability: An Integrative Framework for Regional Water Management”, Discussion Paper, Hydrology and Earth System Sciences, 12 (11), doi:10.5194/hessd-12-11291-2015.
- Nasserli, M., B. Zahraie, **N.K. Ajami**, 2014. “Possibilistic versus Probabilistic Methods for Multi Model Ensemble Hydrological Simulations”, Journal of Hydrology, 511, 675-691.
- Ajami, N.K.**, C. Gu, 2010. “Complexity in Soil Nitrogen Modeling: A Case for Model Averaging”, Journal of Stochastic Environmental Research and Risk Assessment (SERRA), 24(6), 831-844, doi: 10.1007/s00477-010-0381-4. (*INVITED*)
- Franz, K.J., P. Butcher, **N. K. Ajami**, 2010. “Addressing Snow Model Uncertainty in Hydrologic Predictions”, Advances in Water Resources, 33,820-832.
- Sunding, D.L., **N.K. Ajami**, 2009, “The Impacts of Delta Export Restrictions on Urban Water Consumption in Southern California”, ARE Update Volume 12, Number 6. UC Berkeley: Giannini Foundation of Agricultural Economics.
- Ajami, N.K.**, Q. Duan, S. Sorooshian, 2009. “Reply to Comment by B. Renard, D. Kaveski and G. Kuczera on “An integrated hydrologic Bayesian multimodel combination framework: Confronting input, parameter, and model structural uncertainty in hydrologic prediction”, Water Resource Research, 45, W03604, doi:10.1029/2008WR007215.
- Ajami, N.K.**, G.M. Hornberger, D.L. Sunding, 2008. “Sustainable Water Resource Management under Hydrological Uncertainties”, Water Resources Research, 44, W11406, doi:10.1029/2007WR006736.
- Ajami, N.K.**, Q. Duan, S. Sorooshian, 2007. “An Integrated Hydrologic Bayesian Multi-Model Combination Framework: Confronting Input, Parameter and Model Structural Uncertainty in Hydrologic Prediction”, Water Resources Research, 43, W01403, doi:10.1029/2005WR004745.

- Duan, Q., **N.K. Ajami**, X., Gao, So. Sorooshian, 2007. “Multi-Model Ensemble Hydrologic Prediction Using Bayesian Model Averaging”, *Advances in Water Resources*, 30(5), 1371-1386. (Listed as one of the most requested papers from the *Advances of Water Resources* journal)
- Ajami, N.K.**, Q. Duan, X. Gao, S. Sorooshian, 2006. “Multi-Model Combination Techniques for Hydrological Forecasting: Application to Distributed Model Intercomparison Project Results”, *Journal of Hydrometeorology*, 7(4), 755–768.
- Franz, K., **N.K. Ajami**, J., Schaake, R., Buizza, 2005. “The Hydrologic Ensemble Prediction Experiment (HEPEX)”, *EOS*, 86(25).
- Ajami N.K.**, H. Gupta, T. Wagner, S. Sorooshian, 2004. “Calibration Of A Semi Distributed Hydrologic Model For Streamflow Estimation Along A River System”, *Journal of hydrology*, 298,112-135. (*INVITED*-Listed as one of the most requested papers from the *Journal of Hydrology*)
- Reed, S., Koren, V., Smith, M., Zhang, Z., Moreda, F., Seo, D.-J. and **DMIP Participants**. 2004. “Overall Distributed Model Intercomparison Project Results”, *Journal of Hydrology*, 298(1-4), 27-60.
- Karamouz, M., B. Zahraie, **N. Khodatalab**, 2003. “Reservoir Operation Optimization: A Nonstructural Solution for Control of Seepage from Lar Reservoir in Iran”, *Water International*, 28(1).

#### *In Preparation*

- Bolorinos, J, **NK Ajami**, Y. Yu, R. Rajagopal, (2017) “Achieving power system water use objectives through market-based dispatching in California: an evaluation of possibilities and tradeoffs”, In prep.
- Ajami, NK.**, G. Muñoz , J. Bolorinos, (2017) “Water and energy policy in the California-Mexico border region: Opportunities for collaboration and planning”, In prep.

#### *Other Publications*

- Quesnel, K., **N.K. Ajami**, 2016. “Tapping into Alternative Ways to Fund Sustainable Water Projects: A Financing Framework from the Electricity Sector”, *Water in the West*, Stanford University. <http://waterinthewest.stanford.edu/sites/default/files/Woods%20Funding%20Water%20Projects%20Whitepaper%20v09.pdf>
- Szeptycki, L., E. Hartge, **N. Ajami**, A. Erickson, W. N. Heady, L. LaFeir, B. Meister, L. Verdone, and J.R. Koseff 2016. *Marine and Coastal Impacts on Ocean Desalination in California*. Dialogue report compiled by Water in the West, Center for Ocean Solutions, Monterey Bay Aquarium and The Nature Conservancy, Monterey, CA.
- Quesnel, K., **N.K. Ajami**, 2015. “Funding Water In Times of Financial Uncertainty: The Case for a Public Goods Charge in California”, *Water in the West*, Stanford University. <http://waterinthewest.stanford.edu/sites/default/files/Ajami-PGC-WhitePaper-FINAL02172015.pdf>.
- Hanak, E., J. Lund, **N.K. Ajami**, K. Baerenklau, J. R. DeShazo, J.D. Saphores, K. Schwabe, D. Sedlak, 2015. “California’s Water: Water for Cities”, Policy Brief, Water Policy Center, Public Policy Institute of California. [http://www.ppic.org/content/pubs/report/R\\_415WFCR.pdf](http://www.ppic.org/content/pubs/report/R_415WFCR.pdf)
- Ajami, N.K.**, B.H. Thompson, D.G. Victor, 2014. “The Path to Water Innovation”, Discussion Paper 2014-06, The Hamilton Project, Brookings Institute.

[https://woods.stanford.edu/sites/default/files/files/path\\_to\\_water\\_innovation\\_thompson\\_per\\_final.pdf](https://woods.stanford.edu/sites/default/files/files/path_to_water_innovation_thompson_per_final.pdf)

- Ajami, N.K.**, C. Truelove, 2014. “A WATER-ENERGY RESEARCH AGENDA: Building California's Policy Foundation for the 21st Century”,  
<http://waterinthewest.stanford.edu/sites/default/files/Water-Energy%20Agenda-%20final-042514.pdf>
- Cooley, H., **N.K. Ajami**, M. Heberger, 2013. “Key Issues for Seawater Desalination in California: Marine Impacts”, <http://www.pacinst.org/wp-content/uploads/2013/12/desal-marine-impacts-full-report.pdf> .
- Ajami, N.K.**, 2013. “Financing Energy Efficiency and Water Efficiency Improvements in California”, Pacific Institute.
- Ajami, N.K.**, J. Christian-Smith, 2013. “Financing Options for Water Projects in California”, Pacific Institute.
- Cooley, H., **N.K. Ajami**, V. Srinivasan, K. Donnelly, J. Christian-Smith, 2012. “Global Water Governance in the 21st Century”, Pacific Institute.
- Cooley, H., **N.K. Ajami**, 2012. “Key Issues for Seawater Desalination in California: Cost and Financing”, Pacific Institute,  
[http://pacinst.org/reports/desalination\\_2013/financing\\_final\\_report.pdf](http://pacinst.org/reports/desalination_2013/financing_final_report.pdf)
- Ajami, N.K.**, 2012. “Comments On The Cadiz Conservation, Recovery, And Storage Project Draft Environmental Impact Report”.  
[http://www.pacinst.org/reports/cadiz/public\\_comments\\_031412.pdf](http://www.pacinst.org/reports/cadiz/public_comments_031412.pdf)
- Ajami, N.K.**, 2012. “California Aquatic Invasive Species State Policy”, prepared for the California State Senate Natural Resources and Water Committee.
- Sunding, D.L., S.F. Hamilton, **N.K. Ajami**, 2009."Groundwater Management and the Cost of Reduced Surface Water Deliveries to Urban Areas: The Case of the Central and West Coast Basins of Southern California" . Department of Agricultural & Resource Economics, UCB. CUDARE Working Paper 1081. [http://repositories.cdlib.org/are\\_ucb/1081](http://repositories.cdlib.org/are_ucb/1081).
- Sunding, D.L., **N.K. Ajami**, S. Hatchett, D. Mitchell, D. Zilberman, 2009. "Economic Impacts of Reduced Delta Exports Resulting from the Wanger Interim Order for Delta Smelt". Department of Agricultural & Resource Economics, UCB. CUDARE Working Paper 1083. [http://repositories.cdlib.org/are\\_ucb/1083](http://repositories.cdlib.org/are_ucb/1083).

#### *Books and Book Chapters*

- Gleick, P. H., **N.K. Ajami**, J. Christian-Smith, H. Cooley, K. Donnelly, J. Fulton, M.L. Ha, M. Heberger, E. Moore, J. Morrison, S. Orr, P. Schulte, V. Srinivisan, 2014“ The World’s Water Volume 8: The Biennial Report on Freshwater Resources”.
- Ajami, N.K.**, P. Gleick, K. Donnelly, J. Akudago, M. Heberger, A.M. Fikri , 2012. “Transformational Ideas to Enhance Water Security”, Pacific Institute.
- Sunding, D.L., S.F. Hamilton, **N.K. Ajami**, 2011 “Economic Benefits of Expanded Groundwater Storage in the Central and West Coast Basins of Southern Los Angeles County”, in Angelos Findikakis and Kuniaki Sato (eds.) IAHR Monograph on Groundwater Management Practices, Leiden, Netherlands: CRC Press/Balkema – Taylor & Francis Group, 2011, pp. 157-77.

### Research Briefs

- Ajami, N.A.**, B.H. Thompson, K. Quesnel, 2016. “Renewing Investment in Our Water System”, Research Brief, Stanford Woods Institute for the Environment, winter 2016.  
[https://woods.stanford.edu/sites/default/files/files/Brief-H20InnovativeFunding-Web\\_2.pdf](https://woods.stanford.edu/sites/default/files/files/Brief-H20InnovativeFunding-Web_2.pdf)
- Ajami, N.A.**, B.H. Thompson, 2016. “Overcoming Fragmentation in the Water Sector to Promote Water Innovation: State-level “Offices of Water Resources Innovation and Development”, Research Brief, Stanford Woods Institute for the Environment, winter 2016.  
<https://woods.stanford.edu/sites/default/files/files/Brief-H20SectorFragmentation-Web.pdf>
- Ajami, N.A.**, B.H. Thompson, 2016. “The Path to Water Innovation”, Research Brief, Stanford Woods Institute for the Environment, winter 2016.  
<https://woods.stanford.edu/sites/default/files/files/Woods%20H2O%20Innovation%20Research%20Brief%20v05.pdf>

### Opinion Pieces

- Ajami, N.K.**, “How California Can Reinvent the Water Sector”, INVITED Op-Ed contribution, July 4, 2016. <https://www.newsdeeply.com/water/op-eds/2016/07/04/how-california-could-reinvent-the-water-sector>,
- Ajami, N.K.** and B.H. Thompson, “On World Water Day, identifying a path toward greater innovation in water is needed”, INVITED Blog contribution, Planet Policy –Brookings Institute, March 22, 2016. <http://www.brookings.edu/blogs/planetpolicy/posts/2016/03/22-stanford-woods-world-water-day>
- Ajami, N.K.**, “California’s Water Sector moves into the 21st Century”, INVITED Blog contribution, Eureka –Hoover Institute, September 29, 2015.  
<http://www.hoover.org/publications/daily-report/thursday-october-01-2015>
- Ajami, N.K.** and B.H. Thompson, “Investing in the Future of California’s Water Sector”, INVITED Blog contribution, Hamilton Project Blog, April 21, 2015.  
[http://www.hamiltonproject.org/blog/investing\\_in\\_the\\_future\\_of\\_californias\\_water\\_sector](http://www.hamiltonproject.org/blog/investing_in_the_future_of_californias_water_sector)
- Ajami, N.K.** “Conserve Energy to Save Water”, INVITED Op-Ed, New York Times, Room for Debate, June 30, 2014. <http://www.nytimes.com/roomfordebate/2014/06/29/the-water-crisis-in-the-west/conserves-energy-to-save-water?module=Search&mabReward=relbias%3As> .
- Ajami, N.K.**, “Viewpoints: How should California pay for its water systems?”, Op-Ed, Sacramento BEE, Dec 21, 2013. <http://www.sacbee.com/2013/12/21/6018062/viewpoints-how-should-california.html>.
- Bredehoeft, J., **Ajami, N.K.**, “Plan to Tap Groundwater for Profit Shows Need for Better State Policy”, Op-Ed, Sacramento Bee, April 13, 2012.  
<http://www.sacbee.com/2012/04/13/4410618/plan-to-tap-groundwater-for-profit.html>.

For more on media coverage please see: <http://waterinthewest.stanford.edu/about/people/newsha-ajami>

## **SELECT INVITED PRESENTATIONS**

### *Paper Presentations and Keynote Talks*

- “Green Streets and Financing Dilemma”, Opening Remarks, Regional Roundtable: Sustainable Streets, Urban Greening Bay Area, March/2017.
- “Introduction to the Public Goods Charge”, Sierra Summit, Interest on a Past-Due Bill: Funding Watershed Restoration and Forest Health, Sierra Nevada Conservancy, March/2017.
- “Stormwater: Challenges or Opportunities”, ACWA 2016 Fall Conference and Exhibition, December/2016
- “Role of Big Data in Urban Water Policy Innovation”, Stanford Graduate School of Business Water Data Summit: Academic Panel, September/2016.
- “Role of Innovation in Water Supply Diversification”, Keynote, Workshop on Water Resource Management in the 21st Century, Sharif University, Tehran Iran, July/2016.
- “Facing 21st Century Water Challenges in California: Rethinking Management Strategies”, Stanford Club of San Ramon Valley - Spring Dinner and Lecture, April/2016.
- “Rethinking Water Resource Management in the 21<sup>st</sup> Century”, Keynote, The 14<sup>th</sup> Conference on International Exchange of Professionals Global Intelligence Forum Shenzhen, Guangdong Province, China, April/2016.
- “Diversification of California’s Water Supply: Overview of Urban Water Reuse and Recycling”, Keynote, First Sino-America Land Engineering cooperation Conference, Xian, China, April/2016.
- “Alternative Ways to Fund Water Projects: Looking to the Electricity Sector for Guidance” How to Fund Groundwater Sustainability Symposium, Groundwater Resources Association of California, Sacramento, California, March/2016.
- “Guiding Water Sector’s Path to Innovation: Economic Correlation Between the Water and Clean Energy Sectors”, 2015 Summit on Safe Drinking Water from Every Tap, Research Triangle Environmental Health Collaborative, Raleigh, NC, Oct/2015.
- “Economic and Environmental Correlation Between the Water and Energy Sector: The Water Sector’s Path to Innovation”, Energy and Water Nexus Summit 4, Bay Planning Coalition, Sep/2015.
- “Facing California’s Water Challenges: A Balancing Act Between Human and Environmental Needs”, U.S. - Iran workshop on Environmental and Water Resources Management Issues of Inland Lakes: Sharing experiences and opportunities from Iran’s Urmia Basin and the Southwest U.S., UC Irvine, Irvine CA, June/2015.
- “Rethinking California’s Water Portfolio: Introducing Innovative Solutions to our Water Challenges”, Israel Water Technology: Opportunities for California, Sacramento, CA, June/2015.
- “Funding Water Innovation”, World Water Day: Cities To Cities Dialogues, Water Tech for Resilient Cities, US Water Partnership and Inter-American Development Bank, Washington DC, March/2015.
- “The Water Sector’s Path to Innovation”, East Bay Leadership Council, March/2015.

- “Solving California’s Water Problem”, Australian Delegation, Stanford University, January/2015.
- “Drought A Challenge or an Opportunity: Rethinking Water Resource Management in California”, Conference on Water and Public Health, Sao Carlos, Brazil, Decemeber /2014.
- “Climate Change and California's Water Resources”, Symposia I: Water Issues in Climate Change, UC San Diego, April/2013.
- “Translating Water Science into Effective Public Policy”, Symposia I: Water Issues in Climate Change, UC San Diego, April/2013.
- “Twenty First Century Governance Strategies to Empower Communities”, Multi Scalar and Cross Disciplinary Approaches towards Equitable Water Governance Conference, National Science Foundation Workshop in Cultural Anthropology, Center for Global, International and Regional Studies (CGIRS), UC Santa Cruz, February/2013.
- “ Rethinking Water Resource Management in California”, University of Geneva and the World Economic Forum Debate Series, March/2012.
- “All the answers to water supply and demand: why should we use climate data in forecasting water supply?”, Delta Stewardship Council, Delta Science Program, January/2011.
- “Integrated uncertainty estimation for distributed hydrological models”, European Geosciences Union, Vienna, Austria, April/2007.
- “Impacts of uncertainty in efficient management of California’s water resources”, California Water and Environmental Modeling Forum, Asilomar CA, February/2007.
- “Advances in Semi-Distributed Watershed Modeling”, Presentation, American Geophysical Union, Nice, France, Apr/2003.

*Panel Discussions and Moderation*

- Moderator, “Watershed Investment Discussion: Public Goods Charge”, Sierra Summit, Interest on a Past-Due Bill: Funding Watershed Restoration and Forest Health, Sierra Nevada Conservancy, March/2017.
- Panelist, “Trump and Infrustructue: Where Should the Money Go”, From Bridge to Education: Best Bets for Public Investment”, The Hutchins Center on Fiscal & Monetary Policy, Brookings Institute, January, 2017.
- Panelist, “Stormwater as a Resource: Opportunities and Challenges”, The Association of California Water Agencies, Fall Conference and Exhibition, December/2016.
- Panelist, “Innovative Financing”, Winter Water Workshop: Collaboration and Connection, Sustainable Silicon Valley, December 2016.
- Panelist, “Water in a Time of Scarcity: Adapting to Drought”, Society of Environmental Journalists Annual Conference, September /2016.
- Panelist, German Consulate Water Panel, September/2016.
- Panelist, Stanford Graduate School of Business Water Data Summit: Academic Panel, September/2016.
- Panelist, “Innovative Technologies and Corporate Leadership to Address the CA Drought”, Silicon Valley Leadership Group, Energy and Sustainability Summit, June/2016.



Panelist, “An Integrated Approach to Bay Area Water: Conservation, Efficiency, Centralized Treatment and Onsite Reuse”, Sustainable Silicon Valley Spring Water Symposium: Resilience and Reuse, May/2016.

Panelist, “The California Drought: Year 4 | A Discussion of the Origins, Policy Implications, and Long-Term Strategies for California's Ongoing Drought”, Stanford University, May/2016.

Panelist, “From the Promised Land to the Golden State: Shifting the Water Paradigm”, Jewish High Tech Community, April/2016.

Panelist, “Experts Roundtable on State Opportunities to Improve the Energy-Water Nexus”, National Governors Association, Washington DC, Feb/2016.

Panelist, *The White House* Roundtable on Water Innovation, Washington DC, Dec/ 2015.

Panelists, San Luis Obispo Chamber of Commerce, State of the State, San Luis Obispo, CA, May/2015 ( Shared panel with Senator Bill Monning and Mayor Chuck Reed-former mayor of San Jose).

Panelist, “The Water Energy Nexus: Collaboration for Increased Impact”, Energy and Climate Change, 15th National Conference and Global Forum on Science, Policy and the Environment, Washington DC, January/2015.

Legislative Testimony

**Ajami, N.K.**, “Overview of Urban Water Reuse and Recycling”, Testimony before the [California State Assembly Select Committee on Water Consumption and Alternative Sources](#), Hearing #3 on Urban Water Recycling and Reuse in California, California State Capitol, Sacramento, CA, Jan/2016.

**Ajami, N.K.**, “Funding Water in the Time of Uncertainty: The Case for a Public Goods Charge in California”, Testimony before the [California State Senate Natural Resources and water Committee](#), California State Capitol, Sacramento, CA, March/2016.

**OTHER PRESENTATIONS**

Bolorinos, J, NK Ajami, Y. Yu, R. Rajagopal (2016), “Integrating water use into Southern California’s power dispatch: an evaluation of the potential for cost-effective water conservation”, AGU 2016, San Francisco, CA.

Gonzales, P., Y. Sun, **N.K. Ajami** (2016), “Trading Water Conservation Credits: A Coordinative Approach to Drought Response”, AGU 2016, San Francisco, CA.

Quesnel, K., N. Roby, P. Gonzales, N.K. Ajami (2016), “The Role of Political Action and Media in Increasing Public Awareness of Water Scarcity: Combined Effects on Residential Water Use Behavior”, AGU 2016, San Francisco, CA.

**Ajami, N.K.**, C. Gu, “Complexity and uncertainty in soil Nitrogen modeling”, American Geophysical Union, San Francisco, CA, Dec/2009.

**Ajami, N.K.**, D.L. Sunding, G.M. Hornberger, “Economic value of accurate assessment of hydrological uncertainty”, American Geophysical Union, San Francisco, CA, Dec/2008.

**Ajami, N.K.**, D.R. Purkey, “Overview of WEAP-Water Evaluation and Planning System”, Applications of WEAP Model in Water Resources Planning and Management in IRAN, Tehran University, Tehran, Iran, August/2008.

- Ajami, N.K.**, G.M. Hornberger, “End To End Uncertainty Estimation: From Hydrology To Water Resource Management”, American Geophysical Union, San Francisco, CA, Dec/2007.
- Ajami, N.K.**, “Assessment of uncertainty in semi-distributed hydrological models”, American Geophysical Union, San Francisco, CA, Dec/2006.
- Ajami, N.K.**, Q. Duan, S. Sorooshian, “An Integrated Bayesian Uncertainty Estimator: fusion of Input, Parameter and Model Structural Uncertainty Estimation in Hydrologic Prediction System”, presentation, American Geophysical Union, San Francisco, CA, Dec/2005.
- Ajami, N.K.**, Q. Duan, S. Sorooshian, P. Dufy, “Confronting Total Uncertainty in Hydrologic Prediction: An Integrated Bayesian Multi-Model Hydrologic Ensemble Prediction System”. Presentation, International workshop on Hydrometeorological and Hydrologic Ensemble Prediction, Boulder, CO, July/2005.
- Ajami, N.K.**, Q. Duan, X. Gao, S. Sorooshian, “Application of Multi-Model Superensemble technique to flood forecasting through distributed hydrologic models”, presentation, American Geophysical Union, San Francisco, CA, Dec/2004.
- Khodatalab, N.**, H. Gupta, S. Sorooshian “Semi Distributed Modeling Approach And Calibration Strategies”, Presentation, The 13<sup>th</sup> annual Day of Water “El Dia del Agua”, Apr/2003.
- Khodatalab, N.**, H. Gupta, S. Sorooshian, “Distributed Hydrologic Modeling for Flow Forecasting By Using NEXRAD data”, Poster Presentation, American Geophysical Union, May/2002.

### CONFERENCE PROCEEDINGS

- Ajami, N.K.**, Q. Duan, H. Moradkhani, S. Sorooshian, “Recursive Bayesian Model Combination for Streamflow Forecasting”, proceeding of American Meteorological Society, San Diego, CA, Jan/2005.
- Moradkhani, H., **N.K. Ajami**, K.L. Hsu, S. Sorooshian, “On Particle Filtering Monte Carlo Approach to Sequential Hydrometeorological Data Assimilation”, proceeding of American Meteorological Society, San Diego, CA, Jan/2005.
- Karamouz, M, **N. Khodatalab**, S. Araghy Nejad, “Multipurpose Reservoir Operation Optimization: Application of Genetic Algorithm”, Proceeding of AWRA Water Resources Management, Roanoke VA, May /2002.
- Karamouz, M., B. Zahraie, **N. Khodatalab**, “A Decision Support System for Operation of Dez and Karon Reservoirs”, Proceedings of ASCE Water Resources Planning and Management, Minneapolis, MN, May/2000.

### TEACHING EXPERIENCE

**Public Policy Practicum** –Winter and Spring Quarters: The class focuses on analyzing various water related projects and prepare a report related to their findings.

**EARTHSYS 140: The Energy-Water Nexus** – Delivered two lectures on Water-Energy Nexus

**EE 292H: Engineering and Climate Change** – Delivered one lecture on Water in California

**Teaching Assistant**, University of Arizona  
2002-2003

- **The Water Cycle**: Taught lab sessions, prepared lectures, graded assignments and final

- **Persian as a Second Language:** lecturer, held review sessions, prepared homework and exams

### **BOARD AND ADVISORY COUNCIL MEMBERSHIP**

- Sustainable Silicon Valley, Advisory Council Member 2016-Present
- Pacific Council, Water Scarcity Program, Steering Board member 2016-Present

### **FUNDED PROJECTS**

Bay Area Water Supply and Conservation Agency, “Coping With The Drought: Factors Impacting Water Demand Reduction In The Bay Area”, (\$20K)

California Energy Commission, “In-conduit hydropower implementation guidebook: A compendium of resources, best practices and tools”, Team members: Newsha Ajami, Richard Luthy (Stanford University), Matthew Swindle (NLine Energy), Mohammad Badruzzaman (MWH), (\$300K)

EVP planning grant, “Improving Integrated Regional Water Management in California”, Team members: Bruce Cain, Newsha Ajami, Mary Spauge, and Iris Hui, Richard Luthy. (\$25K)

PIE grant, “Towards a US-Mexico Research Collaborative on the Energy-Water Nexus in the Context of Climate Change”. Team members: Bruce Cain, Newsha Ajami, , Rob Jackson. (\$200K)

California Water Foundation, “Public Benefits Charge for Water”, (\$23K)

Abu Dhabi Ministry of Foreign Affairs and Masdar Institute, “Global Water Governance in the 21<sup>st</sup> century”, (\$80K)

Crown Prince Court of Abu Dhabi, “ Transformational Ideas to Enhance Water Security”, (\$120K)

### **PROFESSIONAL AFFILIATIONS**

- Society of Women Engineers (SWE)
- American Geophysical Union (AGU)
- Engineers for a Sustainable World (ESW)

### **MENTEES**

#### **Ph.D. Students**

- Patricia Gonzales, Environmental Engineering, Stanford University (2014-Present).
- Mohammad Nasser, Civil and Environmental Engineering, University of Tehran, Tehran, Iran (2010-present).
- Julian Fulton, Energy and Resources Group, UC Berkeley (2011-2013).
- Kim Quesnel, Civil and Environmental Engineering, Stanford University (2014-Present)

#### **M.S. Students**

- Nick Roby,
- Jose Bolorinos

#### **Undergraduate**

- Noemi Wyss, Boston University (2014)
- Caroline Hodge, Stanford University (2012).

- Zheng Ma (2015)
- Alex Paramo (2015)
- Connie Huynh (2015)
- Conor McFadden (2015)
- Stefan Norgaard (2015)
- Hector Santa Cruz (2015)
- Wendy Sov (2015)