Feb. 10, 2026

R E S U M E
Avi Ostfeld
ATS Staff Academic Chair

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ACADEMIC DEGREES

D.Sc.   1994, Civil Engineering, Technion, Haifa, Israel.

M.Sc.   1990, Civil Engineering, Technion, Haifa, Israel.

B.Sc.   1987, Agricultural Engineering, Technion, Haifa, Israel.

ACADEMIC APPOINTMENTS

Jan. 25 – present   Adjunct Professor, University of Waterloo.

Apr. 23 – present   Member of the Technion permanent committee for tenure
                     appointments.

Jan. 23 – present   Head, undergraduate Technion exposure program on hydrology
                     and water resources.

Jan. 23 – present   Vice Dean, Irwin and Joan Jacobs, Graduate School, Technion –
                     Israel Institute of Technology.

Feb. 21 – Mar. 23   Member and alternating chair, Technion permanent committee
                     for non-tenure appointments.

Apr. 17 – Mar. 23   Deputy Vice President for Academic Affairs, Technion – Israel
                     Institute of Technology.

May 15 – Mar. 17   Vice Dean, Irwin and Joan Jacobs, Graduate School, Technion –
                     Israel Institute of Technology.

Dec. 14 – present   Professor, Civil and Environmental Engineering, Technion,
                     Haifa, Israel.

Jun. 12 – Jun. 13   Affiliate Professor, Zhejiang University, China.

Jul. 09 – Dec. 14	Associate Professor, Civil and Environmental Engineering, Technion, Haifa, Israel.
Jul. 09 – Oct. 09	Visiting Professor, Research Center for Environmental Quality Management (RCEQM), Graduate School of Engineering, Kyoto University, Japan.
Apr. 08 – Oct. 08	Visiting Professor, Department of Civil and Environmental Engineering, University of Illinois at Urbana - Champaign.
Mar. 07	Tenure - Technion, Haifa, Israel.
Jul. 03 – Jun. 09	Senior Lecturer, Civil and Environmental Engineering, Technion, Haifa, Israel.
Oct. 00 - Jun. 03	Lecturer, Civil and Environmental Engineering, Technion, Haifa, Israel.
Sep. 96 - Sep. 97	Research Associate, Civil Engineering, the University of Arizona, Tucson, AZ, USA.
Apr. 94 - Jul. 96	Research Associate, Water Research Institute, Technion, Haifa, Israel.

PROFESSIONAL EXPERIENCE

Nov. 97 - Oct. 00	Project Manager/Senior Engineer at TAHAL – Consulting Engineers Ltd., on water resources development and water supply projects in Israel for the Water Commission, Mekorot Water Company Co., and private agencies in Israel and abroad.
Oct. 85 - Aug. 87	Trainee, Kapam Ltd., Haifa, Israel. Participation in Irrigation and Agricultural Engineering projects in Israel and abroad.
Jul. 85 - Oct. 85	Research Assistant, Agricultural Engineering, Technion, Haifa, Israel. Participation in Drainage and Soil Conservation Engineering projects.

RESEARCH INTERESTS

Water distribution systems security. Development and application of early warning detection system methodologies for monitoring stations allocation.

Evolutionary optimization. Development and application of evolutionary optimization techniques (e.g., Genetic Algorithms, Ant Colony, Cross Entropy) to water distribution systems and water resources management.

Reliability of water distribution systems. Development and application of reliability models for water distribution systems reliability simulation and management.

Management of multi-quality water distribution systems.

Integration of Geographical Information Systems with water resources models. Modeling and management of surface water quantity and quality.

Development and application of machine learning techniques in water resources management.

TEACHING EXPERIENCE

Technion: Introduction to Engineering Hydrology (undergraduate); Water Resources Systems Engineering 1 (mutual graduate and undergraduate); Surface Hydrology (mutual graduate and undergraduate); Water Resources Systems Engineering 2 (mutual graduate and undergraduate); Introduction to Hydraulics and Hydrology (undergraduate); Project in Water Engineering (undergraduate); Advanced Hydraulics (graduate); Advanced Seminar in Environmental and Water Engineering (graduate); Advanced Topics in Hydrodynamics and Water Resources (graduate); Seminar in Environmental Engineering (undergraduate); Hydraulics (undergraduate, as teaching assistant).

University of Illinois at Urbana-Champaign: Environmental Systems I (undergraduate/graduate, Fall 2008); Independent study (graduate, Summer 2008).

College of Civil Engineering and Architecture, Zhejiang University Hangzhou, China: special short course on water resources systems (graduate + faculty, Summer 2012).

TECHNION ACTIVITIES

Feb. 23 – present   Chair, interdisciplinary committee of the Technion Graduate School "MSc general engineering program."

Nov. 22   Chair, ad-hoc Senate committee for nominating the next Technion Executive Vice President & Director General.

Nov. 21 – Mar. 23   Technion EuroTech visiting professorship program representative.

Mar. 20 – Mar. 23   Technion EuroTechPostdoc2 (ETPD2) program coordinator.

Aug. 20 – Nov. 22   Member of the Technion committee for "Industry-Technion cooperation."

Feb. 20 – present   "CRIS-Technion" project manager.

Dec. 15 – Dec. 18   Member of the preparatory senate committee.

Dec. 14 – present   Representative of the Faculty of Civil and Environmental Engineering at the Technion Senate.

Oct. 13 – Mar. 15	Chair graduate, Civil and Environmental Engineering M.Sc. programs for Environmental Engineering, Water, and Agriculture.
Jan. 09 – Apr. 15	Head of the Center for Environmental and Water Resources Engineering.
Jun. 09 – Feb. 11	Chairperson of the Faculty of Civil and Environmental Engineering on preparing the Self-Evaluation Reports Submitted to The Council for Higher Education (MALAG) and for the Technion internal International Evaluation Committee.
Jan. 08 - present	Head of the Grand Water Research Institute Mitchell Family Foundation Water Resources Management Laboratory.
Mar. 07 - Apr. 15	In charge of the undergraduate Civil Engineering B.Sc. program for Water Engineering.
Nov. 06 - Mar. 07	Civil and Environmental Engineering Undergraduate (first year) vice dean assistant.
Jan. 02 - Dec. 05	Civil and Environmental Engineering Council Academic Secretary.
Apr. 94 - Jul. 96	Coordinator, Water Research Institute, Technion, Haifa, Israel.
Nov. 91 - Feb. 92	Coordinator, Task Committee for "Creation of a Water Research Institute at the Technion", Samuel Neaman Institute for Advanced Studies in Science and Technology, Technion, Haifa, Israel.

PUBLIC PROFESSIONAL ACTIVITIES

Feb. 26	In-charge of the Environmental, Water and Agricultural Engineering Departmental Seminars.
May 25	Guest Editor for a special Issue on : Optimization of Water Distribution System Design and Operation Under Uncertainty, Water Journal jointly with Sriman Pankaj Boindala.
Feb. 25	Editor, Water Research.
Sep. 24	Guest Editor for a special Issue on :Applications of Artificial Intelligence (AI) in Water Resources Systems, Water Journal.
Oct. 23	Member, Water distribution systems optimal operation benchmarks, EWRI-ASCE task committee.
Jul. 23	Member, WDSA graduate students, EWRI-ASCE task committee.

Mar. 23	Guest Co-Editor for a Special Issue on Urban Water Systems: Solutions for Uncertain Futures, Springer Nature. Guest Co-Editor for a Special Issue on Water Distribution System Quality Analysis and Control in Water - Open Access Journal.
Aug. 22	Chief panel advisor to the U.S.-Israel Binational Science Foundation on Exact, Physical and Social Sciences
Jul. 22	Guest Co-Editor for a Special Collection on Water and Equity, to be jointly published in the Journal of Water Resources Planning and Management Division ASCE and the Journal of Sustainable Water in the Built Environment ASCE.
Jun. 22	Guest Co-Editor for a Special Issue on Rainwater Harvesting and Treatment, to be published in Water - Open Access Journal.
Oct. 21	Associate Editor, Water Research
Sep. 20	Editorial board member, Water – Open Access Journal, MDPI
Sep. 20	Member, Make results more reproducible, EWRI-ASCE task committee.
Jul. 20	Editor, Journal of Water Resources Planning and Management Division, ASCE.
May. 20	Guest Editor for a Special Issue on Active Contamination Event Detection in Water Distribution Systems, to be published in Water - Open Access Journal.
Feb. 19	Guest Editor for a Special Issue on Multi-Quality Water Distribution Systems Analysis: Simulation and Management, to be published in Water - Open Access Journal.
Dec. 18	Science advisor to the U.S.-Israel Binational Science Foundation.
Oct. 17	Chair, Planning and Management, EWRI-ASCE council.
Mar. 17	Associate Editor, Journal of Water Resources Planning and Management Division, ASCE.
Mar. 15	Member, Research database for water distribution systems, EWRI-ASCE task committee.
Aug. 14	Science advisor to the U.S.-Israel Binational Science Foundation.
Feb. 13	Elected Control Group Member, Planning and Management, EWRI-ASCE council.

Feb. 13	Member of the appointed Israeli National Professional Committee on Water Security.
Dec. 12	Advisory board director of Peak Dynamics (Energy Management in Water Systems) http://www.peak-dynamics.com/
Oct. 12	Associate Editor, Water Resources Research.
Feb. 12	Member, Planning and Management, EWRI-ASCE council.
Nov. 11	Member, Cloud Computing, EWRI-ASCE task committee.
Sep. 11	Member of the Editorial Board, Urban Water
	Member of the advisory board of Visenti (Improving Infrastructure Management)
Jul. 11	Chair, Standing Committee on Water Distribution Systems Analysis, ASCE.
Jan. 11	Management Committee Member of the IWA Hydroinformatics Specialist Group.
Nov. 10	Core member of the IEEE Systems Technical Committee on Monitoring Critical Infrastructures.
Jul. 10	Chief Editor, Journal of Water Resources Planning and Management Division, ASCE.
Jul. 10	Member of the EWRI Planning & Management Council Awards Committee.
May. 10	Vice Chair, Environmental Cyber-Sensing, EWRI-ASCE task committee.
May. 10	Member, Emerging and Innovative Technologies, EWRI-ASCE task committee.
Nov. 08	Editor Integrated Water Management category, Journal of Water Science and Technology, International Water Association (IWA).
Oct. 08	Member of the Editorial Board, Engineering Optimization.
Jan. 08	Guest Editor in collaboration with Prof. Dimitri Solomatine (UNESCO-IHE Institute for Water Education), Special Issue on Data Driven Modeling and Evolutionary Optimization for River Basin Management, Journal of Hydroinformatics, IAHR (International Association for Hydraulic Research) & IWA (International Water Association), Vol. 10, No. 1.

Jan. 07	Chair of the Standards Institution of Israel Committee on Water Security Models for Faults Handling and Surveillance Equipment Locations.
Jul. 06	Editor, Special issue on Drinking water Distribution Systems Security, Journal of Water Resources Planning and Management Division, American Society of Civil Engineers (ASCE).
Nov. 06	Member of the Israeli Steering Committee on a Drainage Engineering Manual preparation for Drainage Engineers, Ben-Zvi (Ed.).
Feb. 05	Associate Editor, Journal of Water Resources Planning and Management Division, American Society of Civil Engineers (ASCE).
Dec. 04	Vice Chair of the International Water Association (IWA) Watershed and River Basin Management Specialist Group.
Jun. 03	Member of the Task Committee on Integrated Water Resources Management, American Society of Civil Engineers (ASCE).
May 02	Member of the Task Committee on Water and Environmental Planning and Management, American Society of Civil Engineers (ASCE). Member of the Task Committee on Evolutionary Computation, American Society of Civil Engineers (ASCE). Member of the Environmental and Water Resources Systems Education Task Committee, American Society of Civil Engineers (ASCE).
Oct. 01	Member of the IWA Watershed and River Basin Management Specialist Group.
Oct. 00	In-charge of the Water Research Institute and the Water Resources and Environmental Engineering Departmental Seminars.
Jun. 94	Member of the Water Resources Systems Committee, American Society of Civil Engineers (ASCE).
Jun. 94	Member of the Task Committee on Integration of Reliability, Uncertainty, and Optimization in Hydraulics, American Society of Civil Engineers (ASCE).
Jan. 94 - present	Reviewer of the Journal of Water Resources Planning and Management Division, ASCE; Journal of Hydrology; Engineering Optimization; Water Resources Research; Advances

in Water Resources; Journal of Environmental Modelling and Software; Urban Water; Civil Engineering and Environmental Systems; Journal of the American Water Works Association; Journal of Environmental Management; Environmental Science & Technology; Water SA, International Journal of Applied Mathematics and Computer Science (AMCS), IEEE Transactions on Evolutionary Computation, Optics Express (annual average of 30 reviews).

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Fellow, Environmental and Water Research Institute (EWRI).

Fellow, International Water Association (IWA).

Fellow, American Society of Civil Engineers (ASCE).

Japan Society of Hydrology and Water Resources (JSHWR).

Member, American Chemical Society (ACS).

The Operations Research Society of Israel (ORSIS).

American Geophysical Union (AGU).

Israel Association for Water Resources (IAWR).

The Israeli and International Water Association (IWA).

1991-present: Registered Engineer (#00065489), Israel

HONORS

Sep. 24   Journal of Water Resources Planning and Management Division, ASCE – Seminal Paper Award for Ostfeld et al. (2008): http://dx.doi.org/10.1061/(ASCE)0733-9496(2008)134:6(556)

Apr. 22   The Cooper Award for Excellence in Research.

Feb. 20   2020 Best Seminal Paper Award for the journal of Water Resources Planning and Management Division, ASCE, for the paper: "State of the art for genetic algorithms and beyond in water resources planning and management" by John W. Nicklow, Patrick Reed, Dragan Savic, Tibebe Dessalegne, Laura Harrell, Amy Chan-Hilton, Mohammad Karamouz, Barbara Minsker, Avi Ostfeld, Abhishek Singh, and Emily Zechman. https://doi.org/10.1061/(ASCE)WR.1943-5452.0000053

Jan. 20   ASCE Julian Hinds AWARD.

Feb. 16   ASCE/EWRI 2016 Service to the Profession Award.

May 13   Fellow, Environmental and Water Research Institute (EWRI).

Jan. 13   Outstanding Reviewer Award for 2012 for the Journal of Environmental Modelling and Software (EMS).

Aug. 12   Fellow, International Water Association (IWA).

Mar. 12   Fellow, American Society of Civil Engineers (ASCE).

Apr. 12   EWRI-ASCE Planning & Management Council's Award for Outstanding Achievement.

Mar. 10   Second Best Poster Award: *Housh M.* Ostfeld A. and Shamir U. "Optimal Management of Israeli National Water Systems Under Uncertainty" in Partnership to Build Capacity for Integrated, International Water Resource Management, ISE - Jordan Water Week 2010, Amman, Jordan.

Jun. 09   International Visiting Scholarship Award, Research Center for Environmental Quality Management (RCEQM), Graduate School of Engineering, Kyoto University, Japan.

Sep. 09   Best CCWI09 Paper Award: *Preis A.*, Whittle A., Ostfeld A., and *Perelman L.* (2009). "On-line hydraulic state estimation in urban water networks using reduced models'", in Integrating Water Systems, Boxall and Maksimovic (Eds.), Taylor and Francis Group, London, proceedings of Computing and Control in the Water Industry 2009 (CCWI09), Sheffield, UK, pp. 319-324.

Feb. 07   The Henri Gutwirth Research Grant.

May 06   Recognized D.WRE (Diplomate, Water Resources Engineer), American Academy of Water Resources Engineers.

Jun. 03   The Aharon Arenson Ltd. Prize for Outstanding Lectureship, Faculty of Civil and Environmental Engineering, Technion.

Jun. 02   The Aharon Arenson Ltd. Prize for Outstanding Lectureship, Faculty of Civil Engineering, Technion.

Jan. 02   The Karney Volovelsky Academic Lectureship Award, Technion.

May 01   The Michael Winer Career Development Chair of the Water Research Institute, Technion.

Jan. 01   The Samuel and Esther August Academic Lectureship Award, Technion.

Jun. 92   The Simha Blas Scholarship Award.

Jun. 92   The Ziva and Albert Ben David Prize for the Outstanding Assistant in teaching in the Fall Semester, 1992.

Jan. 92   The Wolf Foundation Scholarship Award for Research Students.

Jun. 91   The Gruenspan Prize for Research.

Mar. 90   The Miriam and Aaron Gutwirth Scholarship for Excellence Award.

GRADUATE STUDENTS

Completed Theses

1998   MSc, Mataeb G. Stanislav, "Inclusion of demand - pressure head relationships in simulation and management of water distribution systems", with Mordechai H. Diskin - primary advisor.

2003   MSc, Shani Salomons, "Development of a calibration model for CE-QUAL-W2". Currently – Water Transportation Engineer at Elia Ben-Shabat Transportation & Traffic Engineering, Haifa, Israel.

2003   Quirin Lutzenberger, "Hydraulic Simulation and Optimization of Water Distribution Networks", H. Orth (primary advisor), Avi Ostfeld, Ruhr-Universität Bochum, Germany.

2003   MSc, Eli Elias, "An approximated model for optimal design and operation of the Israeli National System: quantity and quality" (Final Paper Track). Currently – TAHAL – Consulting Engineers Ltd., Israel.

2004   MSc, Ami Preis, "A machine learning model for quantity - quality flow predictions in watersheds". Currently – Post doctorate, MIT, USA.

2004   MSc, Shahar Shlomi, "Development of methodologies for optimal groundwater monitoring", with Hillel Rubin - primary advisor.

2005   MSc, Doron Levin, "Analysis of primary - secondary sludge ratio and influences on wastewater treatment costs", with Noah Galil - primary advisor. Currently – Water Engineer at BALASHA-JALON Consulting Engineers Ltd., Haifa, Israel.

2005   MSc, Lina Perelman, "Multi - objective design of water distribution systems". Currently – Associate Professor, the University of Texas at Austin, USA.

2006   MSc, Zohar Sofer, "Reliability assessment of in - house graywater reuse", with Eran Friedler - primary advisor. Currently – Wastewater Engineer, Kalbinyan-Termak Ltd., Israel

2008   PhD, Ami Preis, "Water distribution systems security – multi - objective management". Currently – Founder of Visenti Pte. Ltd.

2008   MSc, Karnit Goldwaser, "Calibration and application of AVGWLF to Lake Kinneret watershed", with Eran Friedler - adjacent advisor.

2008   MSc, Yuri Mayorchik, "Optimal design and operation of pressure surge control devices in water distribution systems". Currently – Water Engineer at TAHAL Consulting Engineers Ltd.

2009   MSc, Shay Herer, "Development of tools for evaluating water hammer solutions" (Final Paper Track).

2010   MSc, Mashor Housh, for completing the requirements for the Master's degree during PhD direct track studies, with Uri Shamir - adjacent advisor. Currently – Tenured faculty member (Senior Lecturer) Haifa University.

2011   MSc, Ziv Ohar, "Optimal booster chlorination stations layout in water systems for minimizing disinfection by products" (cum lauda). Currently – Research Assistant, Technion, with Avi Ostfeld.

2011   PhD, Lina Perelman, "Water Distribution Systems Aggregation". Currently – Tenured, Associate Professor, the University of Texas at Austin, USA.

2011   PhD, Mashor Housh, "Optimal multi-year management of regional water resources systems under uncertainty", with Uri Shamir - adjacent advisor. Currently – Tenured, Associate Professor, Haifa University, Israel.

2012   MSc, Ariel Krapivka, "A hybrid optimization model for water distribution systems design." Currently – Water Engineer – TAHAL Consulting Engineers, Ltd.

2012   MSc, Eyal Price , for completing the requirements for the Master's degree during PhD direct track studies. Currently – Water Engineer – IDE Consulting Engineers, Ltd.

2013   PhD, Dimitri Tukarev, "Development of a hydrodynamic model for managing water supply reservoirs", with Hillel Rubin – primary advisor.

2013   MSc, Jonathan Arad, "Water Distribution Systems Contamination Event Detection." Currently – private independent employee.

2014   MSc, Nurit Oliker, "Multivariate data analysis for contamination event detection in water distribution systems." Currently – PhD, Civil and Environmental Engineering at Optibus Consulting Company.

2014   MSc, Olya Skulovich, "Multi-objective layout of surge control devices in water distribution systems", with Lina Perelman – adjacent advisor. Currently – PhD student, Columbia University, USA.

2015   MSc, Matan Maskit, "Multi-objective operation, leakage, and water quality optimization for water distribution systems." Currently – Teaching Assistant, Civil and Environmental Engineering, Technion.

2015   MSc, Rafael Schwartz, "Inclusion of uncertainty in water distribution systems optimal design and operation" (summa cum laude). Currently – PhD, faculty member, Ariel University, Israel..

2016   PhD (direct track), Eyal Price, "Inclusion of reliability and leakage in multi-objective operation of multi-quality water distribution systems." Currently – Water Engineer – IDE Consulting Engineers, Ltd.

2016   MSc, Nathan Sankary, for completing the requirements for the Master's degree during PhD direct track studies.

2018   PhD (direct track), Nathan Sankary, "Inclusion of uncertainty in sensor network optimal design and operation for water distribution systems security." Currently – Affiliated researcher at a German University.

2018   MSc, Ron Lifshitz, "Dynamic district metering areas optimization for water distribution systems." Currently – Civil Engineer employee at the Israeli Ministry of Construction and Housing.

2018   MSc, Mohamad Zeidan, "Multi-objective optimization for trading off operational cost, leakage, and water age in water distribution systems." Currently – PhD Student, Technion – Israel Institute of Technology.

2018   MSc, Jad Naamnih, "Events detection in water distribution systems." Currently – Water Engineer, working in the Israeli industry.

2020   MSc, Shimon Somer, "Rehabilitation of water distribution systems following a cadmium contamination intrusion", with Ori Lahav – primary advisor.

2021   MSc, Biniam Abrha, "Storage water quality modeling - inclusion in water distribution systems management."

2022   MSc, Assefa Hayelom, "Utilization of network sub-systems for robust water distribution systems optimization under uncertainty."

2022   PhD, Leonid Kadinski, "An integrated warning system for contamination response and recovery of water distribution systems."

2022   PhD, Mohamad Zeidan, "Unsteady flow utilization for water distribution systems management."

2023   MSc, Rahel Amare Kidanu, "Improving multi-objective optimization methods of water distribution systems." with Maria da Conceição M.O. Cunha, University of Coimbra, Portugal.

2023   PhD, Sriman Pankaj Boindala, "Uncertainty inclusion in design-optimization of multi-quality water distribution systems."

2023   PhD, Ofer Snir, "Optimizing design and operation of urban rainwater harvesting systems: high-temporal resolution stochastic model", with Eran Friedler – primary advisor, Luca Vezzaro, DTU – secondary advisor, (served as consultant 2021-2022).

2024   MSc, Tomer Shmaya, "Conjunctive optimal operation of power and water networks."

2024   MSc, Gal Perelman, for completing the requirements for the Master's degree during PhD direct track studies.

2025   PhD, Gal Perelman, "Optimal operation of water distribution systems under uncertainty."

With Prof. Barbara Minsker and Prof. Arthur R. Schmidt, primary advisors, University of Illinois at Urbana-Champaign:

2013   PhD, Andrea Zimmer, "Hydraulic modeling and evolutionary optimization for enhanced real-time decision support of combined sewer overflows."

Theses in Progress

2024   PhD, Raghad Shamaly, "Integrating machine learning for simulating and managing water quality in water distribution systems." with Abhijith G R, IIT -Kanpur, India – adjunct advisor.

2025   MSc, Orjuwan Salfety, "Multi-objective optimization of surge control devices in water distribution systems."

POST-DOCS

2022 - 2023 Leonid Kadinski, working on BMBF 2019 funded project: "Online Monitoring and Digital Control in Drinking Water Distribution Systems."

2019 - 2022 Eyal Price, working on ISF 2018 funded project: "Dynamic Approach for Water Distribution Systems Clustering and Aggregation."

2019 - 2021 Mengning Qiu, worked on ISF 2018 funded project: "Dynamic Approach for Water Distribution Systems Clustering and Aggregation."

2020 - 2023 Abhijith Gopinathan, working on BMBF 2019 funded project: "Online Monitoring and Digital Control in Drinking Water Distribution Systems."

2025   Sriman Pankaj Boindala, working on MOST-BMBF 2024 funded project: "Stay Safe for Intermittent Agricultural Irrigation."

2024 -   Shimon Komarovsky, working on BSF 2021 funded project: "Water distribution systems management under COVID-X."

RESEARCH GRANTS

2001   Mekorot Israel National Water Company Co., "Optimal selection of water distribution systems devices and their calibration", 117000 NIS (two years), Avi Ostfeld, Yehuda Agnon, Michael Saldkevitch.

2002 Water Commission, "A GIS based hydrological model for estimating pollutant loads to Lake Kinneret from its watershed", 179860 NIS, Avi Ostfeld; extension of 40000 NIS, Avi Ostfeld, Eran Friedler (three years).

2002 The Grand Water Research Institute, "Innovative systems for early warning in drinking water distribution networks", 22000 $ (two years), Avi Ostfeld, Avner Kessler.

2002 The Grand Water Research Institute, "Lake Kinneret watershed contamination transports – a GIS based hydrological model", 15000 $ (two years), Avi Ostfeld.

2002 The Grand Water Research Institute, "Optimal monitoring of pumped groundwater for water supply in semiarid populated areas", 24000 $ (two years), Hillel Rubin, Avi Ostfeld.

2002 The Grand Water Research Institute, "Effects of water resources management policies, including pumping and recharge, on the salinization process in the coastal aquifer", 24000 $ (two years), Uri Shavit, Avi Ostfeld, Shmuel Assouline.

2003 Technion's Counter Terrorism Competition, "Early warning monitoring system (EWMS) for drinking water distribution systems security", 7500 $ (one year), Avi Ostfeld.

2004 The Grand Water Research Institute: "Development of a quantity - quality model for Lake Kinneret using clustering recognition and machine learning", 7000 $ (one year), Avi Ostfeld, Lea Kronaveter.

2005 The Grand Water Research Institute, Research Focus on: "Integrative membrane treatment of municipal wastewater for unlimited use", 100000 $ (one year), Robert Armon, Carlos Dosoretz, Eran Friedler, Noah Galil, Michal Green, Avi Ostfeld, Rafi Semiat, Avi Shaviv.

2005 The Grand Water Research Institute, Research Focus on: "On - line monitoring of particulate contaminants in drinking water supplies", 70000 $ (one year) Israel Schechter, Yechezkel Kashi, Avi Ostfeld.

2005 NATO Science for Peace (SfP) project: "Drinking water supply systems security using online monitoring", 271000 EURO (three years), Kevin Lansey (NATO country project director), David Walt (Co - director) - USA (45000 EURO); Avi Ostfeld (Partner NATO country project director), Israel Schechter (Co - director), Yechezkel Kashi (Co - director) - Technion, ISRAEL (226000 EURO).

2006 Mekorot, Israel National Water Co.: "Analysis of the hydraulic and Limnological system of Eshkol reservoirs", 647000 NIS (two years), a joint Kinneret Limnological Laboratory (KLL) and Technion – Israel Institute of Technology project (KLL – Ami Nishri, Allon Rimmer, Assaf Sukenik,

Tamar Zohary, Gideon Gal, Ilia Ostrovsky, and Yosi Yacobi; Technion – Hillel Rubin, Yehuda Agnon, and Avi Ostfeld).

2006   Water Commission, "Development of an optimal management model for Lake Kinneret watershed", 40000 NIS, Avi Ostfeld (one year).

2006   Institute for Future Defense Technologies Research Named for The Medvedi, Shwartzman and Gensler families: "Water distribution systems security using online contamination monitoring", 25000 $, Avi Ostfeld (PI), Israel Schechter, Yechezkel Kashi (one year).

2007   MAGNET project: "Development of data driven models for Biofouling prediction", 150000 NIS, Avi Ostfeld (one year, to be extended to additional two years).

2007   Mekorot, Israel National Water Co.: "Toxic Cyanobacteria predictions in Lake Kinneret ", 51750 NIS, Avi Ostfeld (one year).

2007   Tahal, Consulting Engineers Ltd.: "Theoretical and empirical investigation into the effects of blending desalinated water with other water sources", 70000 NIS, Ori Lahav, Avi Ostfeld, Menahem Rebhun (1.5 years).

2008   Institute for Future Defense Technologies Research Named for The Medvedi, Shwartzman and Gensler families: "Water distribution systems security using online contamination monitoring", 145000 NIS, Avi Ostfeld (PI), Israel Schechter, Yechezkel Kashi (two years).

2008   MAGNET project: "Development of data driven models for Biofouling prediction", 162250 NIS, Avi Ostfeld and Eran Friedler (year two, to be extended to year three).

2008   Grand Water Research Institute: "Inclusion of desalinated water sources in optimizing the operation of water distribution systems", 4000 $, Avi Ostfeld.

2008   Water Authority: "Protecting water distribution systems from deliberate contamination intrusions", 328920 NIS, Avi Ostfeld (three years).

2008   Member of COST (European Cooperation in the field of Scientific and Technical Research) initiative on Intelligent Monitoring, Control and Security of Critical Infrastructure Systems (IntelliCIS).

2009   Institute for Future Defense Technologies Research Named for The Medvedi, Shwartzman and Gensler families: "Water distribution systems security using online contamination monitoring", 60000 NIS, Avi Ostfeld (PI), Israel Schechter, Yechezkel Kashi (third year).

2009   Israeli Ministry of Industry and Trade MAGNET project: "Development of data driven models for Biofouling prediction", 234634 NIS, Avi Ostfeld (third year).

2010   Mekorot Water Company Co., "Optimal operation of the Kishon system", 50000 NIS, Avi Ostfeld (two years).

2010   Technion Research and Development and Lando/Ben-David, "Topological clustering analysis for water distribution systems", 2000 $, Avi Ostfeld (one year).

2011   American Society of Civil Engineers (ASCE) Chief Editor support, 10000 $, Avi Ostfeld (one year).

2011   Technion's Counter Terrorism Competition, "Extreme Impact Contamination Events Sampling for Water Distribution Systems Sensor Design and Operation", 29500 $ (one year), Avi Ostfeld.

2011   Water Authority: "Water distribution systems security - contamination event response enhancement and vulnerability index development", 282900 NIS, Avi Ostfeld (three years).

2012   Umbrella Cooperation Program: Water quality event detection for urban water sustainability ", 8000 $ (one year) Avi Ostfeld and Prof. Dr.-Ing. Holger Schüttrumpf, Institute of Hydraulic Engineering and Water Resources Management, RWTH, Aachen.

2012   Technion's Counter Terrorism Competition, "Mobile Sensors Utilization for Water Distribution Systems Security", 65500 $ (three years), Avi Ostfeld.

2012   Water Authority: "Modeling of complex contaminants in water distribution systems", 360000 NIS, Avi Ostfeld (three years).

2013   MOST-BMBF: "Water quality event detection for urban water security and urban water management based on hydrotoxicological investigations (W^3-Hydro)", 281000 EURO (Israel), 439000 EURO (Germany), Avi Ostfeld, Holger Schüttrumpf (three years).

2013   Grand Water Research Institute, "Mobile sensors operation for water distribution systems water quality monitoring and security", 22500 $ (two year), Avi Ostfeld.

2013   United States Binational Science Foundation (BSF): "Remote mobile sensors operation for water quality and security enhancements of drinking water distribution systems", Avi Ostfeld, Katherine M. Banks, and Marshall Porterfield, 224400 $ (four years).

2014   Robert Shilman Technion foundation for global security research – cooperation with Northeastern university: "Resilient supply-chain design and operation – the testbed of the Israeli national water system", 25000 $ (one year), Avi Ostfeld.

2014   Water Authority: "Optimal disinfection of water distribution systems post a contamination event." 420000 NIS (three years), Avi Ostfeld.

2015   Grand Technion Energy Program: "Smart grid integration at the water-energy nexus." 420000 NIS (one year), Guy Ramon, Avi Ostfeld, and Yitzhak Birk.

2016   Technion's Counter Terrorism Competition, "Optimal decontamination of water distribution systems following a contamination event: a systems approach", 10300 $ (one year), Avi Ostfeld.

2017   German Research Foundation (DFG), "Optimal pressure and water age management of water distribution systems", German PI, Pu Li, Technische Universität Ilmenau, 380000 Euro (three years, 273200 Germany, 106800, Israel), Avi Ostfeld.

2017   EU-H2020 (CIP-2016-2017-1), "Strategic, tactical, operational protection of water infrastructure against cyber-physical threats", STIFTELSEN SINTEF, Coordinator (Rita Ugarelli), total budget: 8255757 Euro, multiple academia and industry partners, four years, 400000 Euro, Technion, Avi Ostfeld.

2017   Technion's Counter Terrorism Competition, "Dynamic clustering for water distribution systems contamination response and recovery", 100000 NIS (one year), Avi Ostfeld.

2017   United States Binational Science Foundation (BSF): "An integrated contaminant warning system for contamination response and recovery", Avi Ostfeld and Dominic Boccelli, 145200 $ (four years).

2017   Ministry of Science, Technology and Space: "Rehabilitation of water distribution systems following a chemical contamination intrusion – a solution based on water quality and water distribution systems modeling", Avi Ostfeld and Ori Lahav, 750030 NIS (three years).

2017   Ministry of Science, Technology and Space: "Utilization of advanced acoustic equipment for biomass and fish recognition for fishery optimal management in Lake Kinneret", Jonathan Belkin, Tel-Aviv University, Ilya Ostrovsky, Israel Oceanographic and Limnological Research (IOLR), Avi Ostfeld, Total of: 1199624 NIS (three years, Technion part: 169050 NIS).

2017   Ministry of Science and Technology and National Emergency Management Authority: "National knowledge and research center for emergency readiness", 9 research group heads, 85 researchers; multi-institutional: University of Haifa, Technion, Hebrew University, and others, total of 3,000,000 NIS, three years.

2018   Israeli Science Foundation (ISF): "Dynamic Approach for Water Distribution Systems Clustering and Aggregation", Avi Ostfeld, 720000 NIS (240000 NIS annually, three years).

2019   MOST-BMBF: "Online Monitoring and Digital Control in drinking water distribution systems", 356500 EURO, Avi Ostfeld, Mathias Ernst, Pu Li (three years).

2020   German Research Foundation (DFG), "Optimal Pressure and Water Age Management of Water Distribution Systems Under Uncertain Demand and Flexible Electrical Energy Tariff", German PI, Pu Li, Technische Universität Ilmenau, 405000 Euro (three years, 298000 Germany, 107000, Israel), Avi Ostfeld.

2021   United States Binational Science Foundation (BSF): "Water distribution systems management under COVID-X", Avi Ostfeld and Emily Berglund, 188800 $ (four years).

2022   PMRI – Peter Munk Research Institute – Technion: "Enhancing the reliability of a contamination detection sensors network in water distribution systems during a cyber-attack", 60000 NIS (one year), Avi Ostfeld.

2022   The Bernard M. Gordon Center for Systems Engineering at the Technion: "Optimal operation of coupled power - water distribution systems under uncertainty", 20000 $ (one year), Avi Ostfeld.

2023   British Council: "Application of e-Favor water leakage detection in water distribution systems under desert environment", Kegong Diao, Avi Ostfeld, and Monther Hind, 21000 $ (one year, 7000 $ Technion).

2024   Israeli Water Commission: "Multiobjective optimal operation design of water supply systems: cost, leakage, water quality", Shlomo Bekhor, Avi Ostfeld (three years, 341475 NIS).

2024   Scheme for Promotion of Academic and Research Collaboration (SPARC) , A Government of India Initiative: "Safe-water: a decision support tool facilitating chlorination in water distribution systems", G R Abhijith, Manoj Kumar Tiwari, Purnendu Bose (Indian Institute of Technology), Avi Ostfeld (Technion), Ahmed Abokifa (University of Illinois Chicago) (two years, funds for travel and accommodation for research cooperation in India).

2024   MOST-BMBF: "Stay safe for intermittent agricultural irrigation", 374190 EURO, Avi Ostfeld, Jörg E. Drewes and Benedikt M. Aumeier (three years).

2024   Grand Water Research Institute, Technion: "Data enabled predictive control for optimal operation of urban drainage systems", 16000$ (two years).

2025   The Bernard M. Gordon Center for Systems Engineering at the Technion: "A systems approach for simulating and managing emerging contaminants in water networks", 15000$ (one year).

2025   Israeli Council of Higher Education, "Mediterranean catchment observatory for studying climate - and human-induced hydrological and biogeochemical processes in aquatic environments" 4,250,000 NIS (total budget, four yrs.), Shai Arnon (PI) et al. + 22 researchers from Ben-Gurion University, Hebrew University, Technion, Geological Survey of Israel, Israel Oceanographic and

Limnological Research, and Volcani Institute. Acting as a researcher at the Technion team: Furman/Friedler/Ostfeld/Orenstein/Radian.

Judged as very good and worthy of support:

2003   United States Binational Science Foundation (BSF): "Early warning monitoring systems for drinking water distribution systems security", Avi Ostfeld, Kevin Lansey, not funded but judged as very good and worthy of support.

2005   United States Binational Science Foundation (BSF): "Innovative water quality sampling methodologies for water distribution systems control", Avi Ostfeld, Kevin Lansey, not funded but judged as very good and worthy of support.

2007   United States Binational Science Foundation (BSF): "Water distribution systems security management through monitoring and control", Avi Ostfeld, Kevin Lansey, not funded but judged as very good and worthy of support.

2009   Israeli Science Foundation (ISF): "Water distribution systems security: extreme impact contamination events sampling for sensor placement", Avi Ostfeld, not funded but judged as very good and worthy of support.

2010   United States Binational Science Foundation (BSF): "Sensor networks for real time control of water distribution systems", Avi Ostfeld, Andrew Whittle (MIT), not funded but judged as very good and worthy of support.

2011   Israeli Science Foundation (ISF): "Operation of mobile sensors for quality and security of water distribution systems", Avi Ostfeld, not funded but judged as very good and worthy of support.

2017   Israeli Science Foundation (ISF): "Dynamic approach for water distribution systems clustering and aggregation", Avi Ostfeld, not funded but judged as very good and worthy of support.

2025   ERC Advanced Grant (ERC): "COMputational Biology for INtegrating Emerging contaminants in water distribution networks (COMBINE)", Avi Ostfeld, past Stage 2 of the evaluation process with the grade of A (fully meets the ERC's excellence criteria and is recommended for funding if sufficient funds are available).

PUBLICATIONS

[Graduate students/research assistants - in italics; Current annual impact factor (5-year impact factor)]

Theses

1. **Ostfeld A.** (1990), "Management of a regional water supply system with sources of different qualities", M.Sc. Thesis, 178 p., Civil Engineering, Technion - Haifa, Israel.

2. **Ostfeld A.** (1994), "Optimal design of reliable multiquality water supply systems", D.Sc. Thesis, 164 p., Civil Engineering, Technion - Haifa, Israel.

Referred papers in professional journals

Published papers

1. **Ostfeld A.** and Shamir U. (1993). "Optimal operation of multiquality networks I: steady state conditions", Journal of Water Resources Planning and Management Division, ASCE, Vol. 119, No. 6, pp. 645 – 662, http://dx.doi.org/10.1061/(ASCE)0733-9496(1993)119:6(645)

2. **Ostfeld A.** and Shamir U. (1993). "Optimal operation of multiquality networks II: unsteady conditions", Journal of Water Resources Planning and Management Division, ASCE, Vol. 119, No. 6, pp. 663 – 684, http://dx.doi.org/10.1061/(ASCE)0733-9496(1993)119:6(663)

3. **Ostfeld A.** and Shamir U. (1996). "Design of optimal reliable multiquality water supply systems", Journal of Water Resources Planning and Management Division, ASCE, Vol. 122, No. 5, pp. 322 – 333, http://dx.doi.org/10.1061/(ASCE)0733-9496(1996)122:5(322)

4. Kessler A., **Ostfeld A.**, and Sinai G. (1998). "Detecting accidental contaminations in municipal water networks", Journal of Water Resources Planning and Management Division, ASCE, Vol. 124, No. 4, pp. 192 – 198, http://dx.doi.org/10.1061/(ASCE)0733-9496(1998)124:4(192)

4a. **Ostfeld A.** and Kessler A. (1999) Closure on "Detecting accidental contaminations in municipal water networks", Journal of Water Resources Planning and Management Division, ASCE, Vol. 125, No. 5, pp. 308 – 310, http://dx.doi.org/10.1061/(ASCE)0733-9496(1999)125:5(308)

5. Argaman Y., Papkov G., **Ostfeld A.**, and Rubin D. (1999). "Single - sludge Nitrogen removal model: calibration and verification", Journal of Environmental Engineering, ASCE, Vol. 125, No. 7, pp. 608 – 617, http://dx.doi.org/10.1061/(ASCE)0733-9372(1999)125:7(608)

6. **Ostfeld A.**, *Muzaffar E.,* and Lansey K. E. (1999). "Analytical ground-water flow solutions for channel-aquifer interaction", Journal of Irrigation and Drainage Engineering, ASCE, Vol. 125, No. 4, pp. 196 – 202, http://dx.doi.org/10.1061/(ASCE)0733-9437(1999)125:4(196)

7. **Ostfeld A.** (2001). "Reliability analysis of regional water distribution systems", Urban Water Journal, Elsevier Science, Vol. 3, No. 3, pp. 137 – 144, http://dx.doi.org/10.1016/S1462-0758(01)00035-8

8. **Ostfeld A.**, *Muzaffar E.,* and Lansey K. E. (2001). "HANDSS: the Hula aggregated numerical decision support system", Journal of Geographic Information and Decision Analysis (GIDA), Vol. 5, No. 1, pp. 16 – 31.

9. **Ostfeld A,** *Kogan D.,* and Shamir U. (2002). "Reliability simulation of water distribution systems - single and multiquality", Urban Water Journal, Elsevier Science, Vol. 4, No. 1, pp. 53 – 61, http://dx.doi.org/10.1016/S1462-0758(01)00055-3

10. **Ostfeld A.** (2002). "IPCLASS – an interactive program for calibrating activated sludge systems", Journal of Environmental Modelling and Software, Elsevier Science, Vol. 17, No. 8, pp. 703 – 719, http://dx.doi.org/10.1016/S1364-8152(02)00030-0

11. **Ostfeld A.** and *Preis A.* (2003). "Lake Kinneret watershed contamination transports: a GIS based hydrological model", Water Science and Technology, Vol. 48, No. 10, pp. 63 – 70, http://www.iwaponline.com/wst/04810/wst048100063.htm

12. **Ostfeld A.** and *Salomons E.* (2004). "Optimal operation of multiquality water distribution systems: unsteady conditions", Engineering Optimization, Vol. 36, No. 3, pp. 337 – 359, http://dx.doi.org/10.1080/0305215042000207054

13. **Ostfeld A.**, Kessler A., and *Goldberg I.* (2004). "A contaminant detection system for early warning in water distribution networks", Engineering Optimization, Vol. 36, No. 5, pp. 525 – 538, http://dx.doi.org/10.1080/03052150410001714097

14. **Ostfeld A.** and *Salomons E.* (2004). "Optimal layout of early warning detection stations for water distribution systems security", Journal of Water Resources Planning and Management Division, ASCE, Vol. 130, No. 5, pp. 377 – 385, http://dx.doi.org/10.1061/(ASCE)0733-9496(2004)130:5(377)

15. **Ostfeld A.** (2004). "Reliability analysis of water distribution systems", Journal of Hydroinformatics, Vol. 6, No. 4, pp. 281 – 294, http://www.iwaponline.com/jh/006/jh0060281.htm

16. [1] **Ostfeld A.** (2005). "Water distribution systems connectivity analysis", Evolutionary Computation Special Issue of the Journal of Water Resources Planning and Management Division, ASCE, Vol. 131, No. 1, pp. 58 – 66, http://dx.doi.org/10.1061/(ASCE)0733-9496(2005)131:1(58)

17. **Ostfeld A.** (2005). "Optimal design and operation of multi - quality networks under unsteady conditions", Journal of Water Resources Planning and Management Division, ASCE, Vol. 131, No. 2, pp. 116 – 124, http://dx.doi.org/10.1061/(ASCE)0733-9496(2005)131:2(116)

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19. **Ostfeld A.** and *Salomons E.* (2005). "Securing water distribution systems using online contamination monitoring", Journal of Water Resources Planning and Management Division, ASCE, Vol. 131, No. 5, pp. 402 – 405, http://dx.doi.org/10.1061/(ASCE)0733-9496(2005)131:5(402)

20. **Ostfeld A.** and *Salomons E.* (2005). "Optimal early warning monitoring system layout for water networks security: inclusion of sensors sensitivities and response delays", Civil Engineering and Environmental Systems, Vol. 22, No. 3, pp. 151 – 169, http://dx.doi.org/10.1080/10286600500308144

21. **Ostfeld A.** and *Salomons E.* (2006). "Conjunctive optimal scheduling of pumping and booster chlorine injections in water distribution systems", Engineering Optimization, Vol. 38, No. 3, pp. 337 – 352, http://dx.doi.org/10.1080/03052150500478007

22. *Preis A., Tubaltzev A.,* and **Ostfeld A.** (2006). "Kinneret watershed analysis tool: a cell based decision tree model for watershed flow and pollutants predictions", Water Science and Technology, Vol. 53, No.10, pp. 29 – 35, http://dx.doi.org/10.2166/wst.2006.294

23. Grayman W., **Ostfeld A.**, and *Salomons E.* (2006). "Locating monitors in water distribution systems: red team - blue team exercise", Journal of Water Resources Planning and Management Division, ASCE, Vol. 132, No. 4, 300 -304, http://dx.doi.org/10.1061/(ASCE)0733-9496(2006)132:4(300)

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http://dx.doi.org/10.1061/(ASCE)0733-9496(2008)134:6(556)

37. Lahav O., *Salomons E.*, and **Ostfeld A.** (2009). "Chemical stability of inline blends of desalinated, surface and ground waters: the need for higher alkalinity values in desalinated water", Desalination, Vol. 239, pp. 334 – 345,
http://dx.doi.org/10.1016/j.desal.2008.07.006

38. *Krapivka A.* and **Ostfeld A.** (2009). "Coupled genetic algorithm – linear programming scheme for least cost design of water distribution systems",

Journal of Water Resources Planning and Management Division, ASCE, Vol. 135, No. 4, pp. 298 – 302, http://dx.doi.org/10.1061/(ASCE)0733-9496(2009)135:4(298)

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49. Preis A., Whittle A., and **Ostfeld A.** (2011) "Multi-objective optimization for conjunctive placement of hydraulic and water quality sensors in water distribution systems", Water Science and Technology: Water Supply, Vol. 11, No. 2, pp. 166 – 171, http://dx.doi.org/10.2166/ws.2011.029

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Plenary or invited talks

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3. **Ostfeld A.** (2003). "Modeling water quality in distribution systems", Keynote lecture at the International Conference on Advances in Water Supply Management (CCWI03), Imperial College, London, UK.

4. **Ostfeld A.** (2004). "Optimal simultaneous design and operation of multiquality water distribution systems under unsteady hydraulics", Invited Keynote lecture at ACTUI2004: "Decision Support in the Water Industry Under Conditions of Uncertainty", University of Exeter, Exeter, Devon, UK.

5. **Ostfeld A.** (2007). "Cross boundary integrated water resources management – quantitative methodologies, tools, examples", Invited Keynote lecture, Multinational Agricultural Research and Development (MARD), Balancing Water Scarcity and Growing Demands in Agriculture, Dead Sea, Jordan.

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7. **Ostfeld A.** (2007). "Standardization of models for water distribution systems security", Invited Plenary lecture, International Workshop Agreement (IWA), The Standards Institution of Israel, Tel-Aviv, Israel.

8. **Ostfeld A.** (2009). "2nd forum on water infrastructure security", Invited Plenary lecture, International Workshop, Università degli Studi di Cassino, Italy.

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12. **Ostfeld A.** (2009). "Integrated water resources management – quantitative methodologies, tools, examples", Invited lecture, 31st Kyoto University Environmental Sanitary Engineering Research Symposium, the Association of Environmental & Sanitary Engineering Research of Japan, Vol. 23, No. 3, p. 1, Kyoto, Japan.

13. **Ostfeld A.** (2009). "Water resources systems analysis using evolutionary hybrid optimization methodologies", Invited lecture, Disaster Prevention Research Institute (DPRI), Kyoto University, Kyoto, Japan.

14. **Ostfeld A.** (2009). "Calibration of CE-QUAL-W2 using a hybrid genetic instance based algorithm", Invited lecture, annual Japan Society for Water Environment (JSWE) symposium, Tokyo, Japan.

15. **Ostfeld A.** (2009). "Integrated water resources systems management – concepts and examples", Invited lecture, Institute of Industrial Science, University of Tokyo, Tokyo, Japan.

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17. **Ostfeld A.** (2010). "Drinking water distribution systems security modeling: review and challenges", Invited Keynote lecture, IntelliCIS COST Action IC0806 Intelligent Monitoring, Control and Security of Critical Infrastructure Systems, September 2010, Novi Sad, Serbia.

18. **Ostfeld A.** (2011). "Water distribution systems security modeling", Invited Plenary lecture, Watermatex 2011, 8th IWA Symposium on Systems Analysis and Integrated Assessment, June 2011, San Sebastian, SPAIN.

19. **Ostfeld A.** (2011). "Modeling and simulation in water distribution system engineering", Invited talk, The 25th Umbrella Symposium & The German-Israeli forum for Science and Technology, June 2011, Aachen, Germany.

20. **Ostfeld A.** (2011). "Water resources systems analysis: methodologies and applications", Plenary lecture, International Conference on Drinking Water Safety, Security and Sustainability, October 2011, Hangzhou, China.

21. **Ostfeld A.** (2011). "Systems analysis for integrated water resources planning and management – Overview and Case Studies", Keynote lecture, in Sustainable Water Management in the 21 Century – Policy and Practice, CINADCO, Centre for International Agricultural Development Cooperation, November 2011, Shefayim, Israel.

22. **Ostfeld A.** (2012). "Optimal urban water distribution systems management", Keynote lecture, in International Workshop on Urban Water Safety, Tsinghua University, April 2012, Beijing, China

23. **Ostfeld A.** (2012): "Water distribution systems modeling." Invited presentation, Jinan Water Utility, China

24. **Ostfeld A.** (2012). "Science and application of water management." Keynote lecture, in the Chamber of Engineers 21st Annual Engineering Conference on: "Water: a 21st Century Challenge", May 2012, Malta, Italy

25. Perelman L. Arad J., Housh M., Oliker N., and **Ostfeld A.** (2012). "Water distribution systems event detection." Invited paper and presentation at COMPENG IEEE Workshop on Complexity in Engineering, June 11-13, Aachen, Germany.

26. **Ostfeld A.** (2012). "Water distribution systems optimization: problems and solutions." Keynote talk, Water Distribution System Academic Salon, Zhejiang University, August 2012, Hangzhou, China.

27. **Ostfeld A.** (2013). "Water distribution systems: theory and applications." Invited talk at the Second IntelliCIS Training School on Simulation-based Design of Complex Infrastructure March, 2013, RWTH Aachen University, Aachen, Germany.

28. **Ostfeld A.** (2013). "Past successes, current state of the art, and future

challenges for water resources systems analysis." Invited talk at panel discussion, EWRI annual conference, May 2013, Cincinnati, Ohio, USA.

29. **Ostfeld A.** (2013). "Smart urban water management." Invited talk at workshops on: Water challenges in Mexico: Present and future situation; Approaches, technologies and solutions (Knowledge, Technology, Implementation, Policy an Regulation), SEMANA DE LA INNOVACIÓN CIENCIA Y TECNOLOGIA INSTITUTO POLITÉCNICO NACIONAL SECRETARÍA DE INVESTIGACIÓN Y POSGRADO, October 2013, Mexico City, Mexico.

30. **Ostfeld A.** (2013). "Water distribution systems security: overview and challenges." Invited talk at FACIES: Workshop on Online Identification of Failure and Attack on Interdependent Critical Infrastructures, December 2013, Florence, Italy.

31. **Ostfeld A.** (2014). "Water distribution systems optimization." ERA-2014 Conference (http://era.citedi.mx/portal2014) Tijuana, B.C. México, April 09 – 11, 2014, in Advances in Computing Science, Control and Communications, Garcia M. G., Sidorov G., and Kumar S. (Eds.), Vol. 69, pp. 89-98.

32. **Ostfeld A.** (2014). "Management of water distribution systems: overview and challenges." Universidad de los Andes, Bogota, Colombia, May 19 – 22, 2014, special conference in preparation to the 18th Water Distribution Systems Analysis (WDSA) conference in 2016, Cartagena de Indias, Caribbean Sea City, Colombia.

33. **Ostfeld A.** (2014). "Water distribution systems modelling: overview and challenges." FP7 EFFINET Workshop on "Efficient Integrated Real-time Monitoring and Control of Drinking Water Networks", September 30, 2014, Cornellà de Llobregat, Barcelona, Spain

34. **Ostfeld A.** (2014). "Water distribution systems security enhancement through monitoring." CRITIS 2014, 9th International Conference on Critical Information Infrastructures Security, October 13-15, 2014, Limassol, Cyprus.

35. **Ostfeld A.** (2015). "Challenges and limitations of current modeling approaches for water distribution systems security." In Secure Cyber Physical [SCy-Phy] Systems Week, June 22-23, 2015, Singapore.

36. **Ostfeld A.** (2015). "Water distribution systems security enhancements through modeling: review and challenges." CCWI 2015, The 13th Computer and Control for Water Industry Conference, 2 - 4 September 2015, De Montfort University, UK.

37. **Ostfeld A.** (2015). "Water resources system analysis: tools and challenges." In EXPO 2015, joint meeting on "Managing Water Quality for Public Health", Politecnico di Torino, Technion Institute of Technology, University of Torino, 14 - 15 October 2015, Torino, Italy.

38. **Ostfeld A.** (2018). "EPANET - challenges and opportunities." In EPANET Summit, ASCE Headquarters, Reston, Virginia, 3 - 4 April 2018, USA.

39. **Ostfeld A.** (2019). "A review of cybersecurity events in the water sector." Keynote address in the International Symposium on Cyberterrorism: Future Threats in an Interconnected World, the University of Haifa, ISRAEL.

40. **Ostfeld A.** (2021). "Uncertainty inclusion in optimization of multi-quality water distribution systems." Invited talk at the 2021 Grid Science Winter School & Conference, Center for Nonlinear Studies, Los Alamos National Laboratories, New Mexico, USA.

41. **Ostfeld A.** (2022). "Water distribution systems simulation and management." Invited talk at the 2022 "Mathematical Methods for Engineering Problems" one day workshop at AIMS Rwanda.

42. **Ostfeld A.** (2022). "Integrated water resources management for sustainable agricultural water supply." Invited talk at "Sustainable agricultural water (SAW) workshop" May 24, 2022 Estes Park Colorado, USA.

43. **Ostfeld A.** (2023). "Sustainable water resources management: modeling, challenges, opportunities." Plenary talk at "3rd International Forum on Drinking Water Challenges and Opportunities for the Eastern Mediterranean Region" March 21, 2023 Larnaca, Cyprus.

44. **Ostfeld A.** (2023). "Water distribution systems analysis: review and challenges." Invited talk (Erasmus+ program), Budapest University of Technology and Economics, Faculty of Mechanical Engineering, Department of Hydrodynamic Systems, April 19, 2023, Budapest, Hungary.

45. **Ostfeld A.** (2023). "A perspective on water distribution systems analysis." Invited plenary talk, 19th Computing and Control for the Water Industry Conference (CCWI-2023), De Montfort University, September 4, 2023, Leicester, UK.

46. **Ostfeld A.** (2023). "A systems approach to water resources systems analysis." Invited plenary talk, the 6th International Symposium on Water Pollution and Treatment, October 14-15, 2023, Bangkok, Thailand.

47. **Ostfeld A.** (2024). "State-of-the-art of water supply systems design and operation." Invited plenary talk, two-day international workshop on Design and Implementation of Smart Water Systems, August 30-31, 2024, IIT-Kanpur, India.

48. **Ostfeld A.** (2024). "Real-time monitoring and control." Invited plenary talk, two-day international workshop on Design and Implementation of Smart Water Systems, August 30-31, 2024, IIT-Kanpur, India.

49. **Ostfeld A.** (2024). "Water distribution systems analysis: perspectives and challenges." Invited plenary talk, One day workshop on challenges and key focus

towards smart water systems (SWS-2024), September 12, 2024, NIT Kurukshetra, India.

50. **Ostfeld A.** (2024). "The Israel water resources management system." Invited plenary talk, One day workshop on challenges and key focus towards smart water systems (SWS-2024), September 12, 2024, NIT Kurukshetra, India.

51. **Ostfeld A.** (2025). "AI-based modelling of water distribution systems." Invited talk, Department of Civil Engineering, Visvesvaraya National Institute of Technology (VNIT), November 18, 2025, Nagpur, India.

52. **Ostfeld A.** (2025). "Water distribution systems modeling." Invited keynote talk, International Conference on Sustainability, Circularity, Outreach and Policy for Environment (SCOPE 2025), November 20-22, 2025, IIT Kanpur, India.

National
1. Rubin H., **Ostfeld A.,** and *Dveyrin D.* (2002). "Groundwater contaminants monitoring design for early warning", special international symposium on Stressed Aquifers – Causes and Management, Sde-Boker, Israel.

2. **Ostfeld A.** (2003). "An early warning detection system for drinking water distribution systems security", Mekorot Water Company Co.

3. **Ostfeld A.** (2003). "Optimal layout of early warning detection stations for water distribution systems security", visit to the Technion of Military Attaches from Latin America and Europe, December 2003.

4. **Ostfeld A.,** Gal G., and *Salomons E.* (2005). "Automated CAEDYM calibration", Invited lecture at the 'Kinneret Model Day' marking the completion of the Kinneret Ecosystem Modelling Project, Nof Ginosar, Lake Kinneret, Israel.

5. **Ostfeld A.** (2010). "Water distribution systems security – review and applications", Mekorot Water Company Co.

6. **Ostfeld A.** (2012). "Water distribution systems event detection", Technion – University of Toronto Joint Workshop on Response and Protection of Infrastructure to Extreme Loadings, Technion, Haifa, Israel.

7. **Ostfeld A.** (2013). "Incorporating transient analysis modeling in water distribution systems management", Hydraulic Surge and Air Control Symposium, Kibbutz Kfar Charuv, Ramat Hagolan, Israel.

8. **Ostfeld A.** (2013). "Drinking water distribution systems security modeling", Session on Water Security and Modeling as Ultimate Tools for the Water Manager, Water Technology and Environmental Control Exhibition and Conference (WATEC), Tel-Aviv, Israel.

9. **Ostfeld A.** (2016). "Model for disinfect contaminated water systems in times of crisis", International conference on resilient cities, September 27-28, 2016, University of Haifa, Israel.

10. **Ostfeld A.** (2024). "Data-driven predictive control for water distribution systems optimal control", Invited keynote talk, Hydroinformatics Data and AI Applications in Water, July 17, 2024, Water Research Institute, Technion, Haifa, Israel.

Papers in refereed conference proceedings

1. **Ostfeld A.** and Shamir U. (1993). "Modeling multiquality networks", proceedings of the AWWA annual conference, San Antonio, Texas, USA, pp. 151 - 160.

2. **Ostfeld A.** and Shamir U. (1994). "Designing optimal reliable multiquality water supply systems", proceedings of the EWRI annual conference, ASCE, Denver, Colorado, USA, pp. 270 - 274.

3. **Ostfeld A.** and Shamir U. (1995). "Water quality modeling in distribution systems: overview and state of - the art in methods of solutions", proceedings of the EWRI annual conference, ASCE, Cambridge, Massachusetts, USA, pp. 698 - 701.

4. Kessler A., **Ostfeld A.**, and Sinai G. (1997). "Detecting accidental contaminations in municipal water networks", proceedings of the EWRI annual conference, ASCE, Houston, Texas, USA, pp. 732 - 737.

5. **Ostfeld A.,** Lansey K. E., Salingar Y., and Maddock T. III (1997). "Development of a decision support system for the Lake Hula project", ESRI Annual User's Conference, San Diego, California, published at: http://www.esri.com

6. **Ostfeld A.** and Kessler A. (1998). "Detecting accidental contaminations in municipal water networks: application", proceedings of the EWRI annual conference, ASCE, Chicago, Illinois, USA, pp. 272 - 278.

7. **Ostfeld A.** and Shamir U. (1998). "Using back - up sub - systems for design and operation of reliable multiquality systems", proceedings of the EWRI annual conference, ASCE, Chicago, Illinois, USA, pp. 303 - 306.

8. **Ostfeld A.** (2000). "Reliability analysis of regional water distribution systems - a case study", proceedings of the EWRI annual conference, ASCE, Minneapolis, Minnesota, USA, http://dx.doi.org/10.1061/40517(2000)194

9. *Muzaffar E.*, **Ostfeld A.**, and Lansey K. (2000). "An overview of HANDSS: Hula aggregated numerical decision support system", proceedings of the EWRI annual conference, ASCE, Minneapolis, Minnesota, USA, http://dx.doi.org/10.1061/40517(2000)30

10. **Ostfeld A.** (2001). "Reliability simulation of water distribution systems", in Water Software Systems: Theory and Applications, Ulanicki B., Coulbeck B., and Rance J. P. (Eds.), Proceedings of the CCWI01 Conference, Vol. 1, pp. 289 - 300.

11. **Ostfeld A.** and Kessler A. (2001). "Protecting urban water distribution systems against accidental hazards intrusions", Proceedings of the IWA Second Conference, Berlin 2001, Published on CD.

12. **Ostfeld A.** (2001). "Activated sludge systems calibration - an interactive approach", Proceedings of the IWA Second Conference, Berlin 2001, Published on CD.

13. **Ostfeld A.**, *Salomons E.*, and Shamir U. (2002) "Optimal operation of water distribution systems under water quality unsteady conditions", Proceedings of the annual EWRI ASCE Conference, Roanoke, Virginia, published on CD.

14. Rubin H., **Ostfeld A.**, and *Dveyrin D.* (2002). "Optimal monitoring of pumped groundwater for water supply in semiarid populated areas", Proceedings of the annual EWRI ASCE Conference, Roanoke, Virginia, published on CD.

15. Berger D. and **Ostfeld A.** (2002). "Application of CE-QUAL-W2 to Lake Kinneret", Proceedings of the 5th International Conference on Hydroinformatics, Cardiff, UK, Vol. 1, pp. 528 - 333.

16. **Ostfeld A.** (2002). "Reliability oriented analysis of water distribution systems", Proceedings of the 5th International Conference on Hydroinformatics, Cardiff, UK, Vol. 2, pp. 1459 - 1464.

17. **Ostfeld A.** and *Preis A.* (2002). "Lake Kinneret watershed contamination transports: a GIS based hydrological model", Proceedings of the IWA 9th International Specialized Conference on Watershed and River Basin Management, Edinburgh, Scotland, Published on CD.

18. **Ostfeld A.** and *Salomons E.* (2003). "An early warning detection system (EWDS) for drinking water distribution systems security", Proceedings of the annual EWRI ASCE Conference, Philadelphia, Pennsylvania, USA, http://dx.doi.org/10.1061/40685(2003)34

19. *Shlomi S.*, Rubin H., **Ostfeld A.**, and Shoemaker C. (2003). "Developing a methodology for selecting wells sampled for the evaluation of groundwater quality", Proceedings of the annual EWRI ASCE Conference, Philadelphia, Pennsylvania, USA, http://dx.doi.org/10.1061/40685(2003)204

20. **Ostfeld A.**, Kessler A., and *Goldberg I.* (2003). "An early warning contaminants detection system for water distribution networks", in Advances in Water Supply Management, Maksimovic C., Butler d., and Memon F. A. (Eds.), Proceedings of the CCWI03 Conference, pp. 433 – 439, http://dx.doi.org/10.1201/NOE9058096081.ch46

21. **Ostfeld A.** (2004). "Optimal simultaneous design and operation of multi-quality water distribution systems under unsteady hydraulics ", EWRI ASCE Conference, Salt Lake City, Utah, http://dx.doi.org/10.1061/40737(2004)479

22. **Ostfeld A.** and *Salomons E.* (2004). "A stochastic early warning detection system model for drinking water distribution systems security", EWRI ASCE Conference, Salt Lake City, Utah, USA, http://dx.doi.org/10.1061/40737(2004)454

23. **Ostfeld A.** and *Salomons E.* (2004). "Optimal scheduling of pumping and chlorine injections under unsteady hydraulics", EWRI ASCE Conference, Salt Lake City, Utah, USA, http://dx.doi.org/10.1061/40737(2004)452

24. *Shlomi S.*, **Ostfeld A.**, Rubin H., and Shoemaker C. A. (2004). "Optimal groundwater contamination monitoring using pumping wells", EWRI ASCE Conference, Salt Lake City, Utah, USA, http://dx.doi.org/10.1061/40737(2004)104

25. *Salomons S.* and **Ostfeld A.** (2004). "A Calibration model for CE-QUAL-W2", EWRI ASCE Conference, Salt Lake City, Utah, USA, http://dx.doi.org/10.1061/40737(2004)227

26. *Preis A.* and **Ostfeld A.** (2005). "A hybrid (MT - LP) - GA approach to water distribution systems management", EWRI ASCE Conference, Anchorage, Alaska, USA, http://dx.doi.org/10.1061/40792(173)23

27. **Ostfeld A.** and *Salomons E.* (2005). "Solving the inverse problem of deliberate contaminants intrusions into water distribution systems", EWRI ASCE Conference, Anchorage, Alaska, USA, http://dx.doi.org/10.1061/40792(173)46

28. **Ostfeld A.** and *Krapivka A.* (2005). "A GA - LP approach to water distribution systems optimal design", EWRI ASCE Conference, Anchorage, Alaska, USA, http://dx.doi.org/10.1061/40792(173)611

29. *Perelman L.* and **Ostfeld A.** (2005). "Multi - objective design of water distribution systems using cross entropy", EWRI ASCE Conference, Anchorage, Alaska, USA, http://dx.doi.org/10.1061/40792(173)35

30. **Ostfeld A.** and *Tubaltzev A.* (2005). "Reliable optimal design and operation of multiquality networks: unsteady conditions", EWRI ASCE Conference, Anchorage, Alaska, USA, http://dx.doi.org/10.1061/40792(173)613

31. Grayman W., **Ostfeld A.**, and *Salomons E.* (2005). "Red team - blue team exercise for locating monitors in distribution systems", EWRI ASCE Conference, Anchorage, Alaska, USA, http://dx.doi.org/10.1061/40792(173)42

32. *Perelman L.* and **Ostfeld A.** (2005). "Water distribution systems optimal design using Cross Entropy", Genetic and Evolutionary Computation Conference (GECCO-2005, Ranked A at Computer Science Conference Rank), Washington DC, Vol. 1, pp. 647 – 648, http://dx.doi.org/10.1145/1068009.1068117

33. **<u>Ostfeld A.</u>** and *Tubaltzev A.* (2005). "An ant colony non - dimensional algorithm for water distribution systems optimal design and operation", Proceedings of the Eighth International Conference on Computing and Control for the Water Industry (CCWI05), Exeter, UK, Vol. 2, pp. 63 - 68.

34. *Perelman L.* and **<u>Ostfeld A.</u>** (2005). "Optimal design of water distribution systems using Cross Entropy", Proceedings of the Eighth International Conference on Computing and Control for the Water Industry (CCWI05), Exeter UK, Vol. 2, pp. 75 - 80.

35. *Preis A.*, *Tubaltzev A.*, and **<u>Ostfeld A.</u>** (2005). "Kinneret watershed analysis tool (KWAT) – a cell based decision tree model for watershed flow and pollutants predictions", the 2005 IWA Watershed & River Basin Management Specialist Group Conference, September 13 - 15, 2005 Calgary, Alberta, Canada, published on CD.

36. **<u>Ostfeld A.</u>**, Gal G., and *Salomons E.* (2006). "Calibration of CAEDYM using a genetic algorithm - the Lake Kinneret case study", EWRI ASCE Conference, Omaha, Nebraska, USA, http://dx.doi.org/10.1061/40856(200)114

37. **<u>Ostfeld A.</u>**, *Tubaltzev A.*, Rom. M., and Kronaveter L. (2006). "A hybrid decision tree (DT) - genetic algorithm (GA) model for toxic Cyanobacteria predictions in Lake Kinneret", EWRI ASCE Conference, Omaha, Nebraska, USA, http://dx.doi.org/10.1061/40856(200)125

38. <u>Watkins D.</u>, Hilton A. C., Loucks E., Nzewi E., and **Ostfeld A.** (2006). "Case studies for environmental and water resources systems analysis education", EWRI ASCE Conference, Omaha, Nebraska, USA, http://dx.doi.org/10.1061/40856(200)83

39. *<u>Preis A.</u>* and **Ostfeld A.** (2006). "Multiobjective sensor design for water distribution systems security", 8th Annual International Symposium on Water Distribution Systems Analysis, Cincinnati, Ohio, USA, http://dx.doi.org/10.1061/40941(247)107

40. *<u>Preis A.</u>* and **Ostfeld A.** (2006). "Optimal sensors layout for contamination source identification in water distribution systems", 8th Annual International Symposium on Water Distribution Systems Analysis, Cincinnati, Ohio, USA, http://dx.doi.org/10.1061/40941(247)127

41. *<u>Perelman L.</u>* and **Ostfeld A.** (2006). "Aggregation of water distribution systems for contamination detection", 8th Annual International Symposium on Water Distribution Systems Analysis, Cincinnati, Ohio, USA, http://dx.doi.org/10.1061/40941(247)62

42. *<u>Perelman L.</u>* and **Ostfeld A.** (2006). "Demand loading conditions: to what extent are they representative?", 8th Annual International Symposium on Water Distribution Systems Analysis, Cincinnati, Ohio, USA, http://dx.doi.org/10.1061/40941(247)167

43. **<u>Ostfeld A.</u>** and *Salomons E.* (2006). "Sensor network design proposal for the battle of the water sensor networks (BWSN)", 8th Annual International Symposium on Water Distribution Systems Analysis, Cincinnati, Ohio, USA, http://dx.doi.org/10.1061/40941(247)108

44. *Mayorchik Y.* and **<u>Ostfeld A.</u>** (2006). "Multiobjective optimal design and operation of pressure surge control devices in water distribution systems", 8th Annual International Symposium on Water Distribution Systems Analysis, Cincinnati, Ohio, USA, http://dx.doi.org/10.1061/40941(247)61

45. *<u>Preis A.</u>* and **Ostfeld A.** (2007). "Multiobjective Contaminant Detection Response Model ", EWRI ASCE Conference, Tampa, Florida, USA, http://dx.doi.org/10.1061/40927(243)528

46. *<u>Preis A.</u>* and **Ostfeld A.** (2007). "Efficient contamination events sampling for sensors layout design", EWRI ASCE Conference, Tampa, Florida, USA, http://dx.doi.org/10.1061/40927(243)462

47. *<u>Perelman L.</u>* and **Ostfeld A.** (2007). "Rare events Monte Carlo sampling for contamination warning systems (CWS) evaluation", EWRI ASCE Conference, Tampa, Florida, USA, http://dx.doi.org/10.1061/40927(243)464

48. *<u>Preis A.</u>*, *Perelman L.* and **Ostfeld A.** (2007). "Contamination source detection with fuzzy sensors data", EWRI ASCE Conference, Tampa, Florida, USA, http://dx.doi.org/10.1061/40927(243)503

49. **<u>Ostfeld A.</u>** (2007). "Challenges in drinking water distribution systems security modeling", EWRI ASCE Conference, Tampa, Florida, USA, published on CD.

50. **<u>Ostfeld A.</u>**, Lahav O., and *Salomons E.* (2007). "Desalinated water sources inclusion in optimizing the operation of water systems", Water Management Challenges in Global Change, Ulanicki et al. (Eds.), CCWI2007 and SUWM2007 Conference, De Montfort University, Leicester, United Kingdom, Taylor and Francis Group, London, pp. 387 - 390.

51. **<u>Ostfeld A.</u>** and *Salomons E.* (2007). "A multiobjective model for imperfect sensors layout", Water Management Challenges in Global Change, Ulanicki et al. (Eds.), CCWI2007 and SUWM2007 Conference, De Montfort University, Leicester, United Kingdom, Taylor and Francis Group, London, pp. 87 - 89.

52. <u>Friedler E.</u>, *Shwartzman Z.*, and **Ostfeld A.** (2007). "Assessment of the reliability of an on - site MBR system for greywater treatment and the associated aesthetic and health risks", IWA 6th Conference on Wastewater Reclamation and Reuse for Sustainability, Belgium, published on CD.

53. *<u>Preis A.</u>*, *Perelman L.,* and **<u>Ostfeld A.</u>** (2008). "Uncertainty quantification of contamination source identification", EWRI ASCE Conference, Honolulu, http://dx.doi.org/10.1061/40976(316)505

54. *Romero-Gomez P., Preis A.,* Choi C., **Ostfeld A.**, Lansey K. (2008). "Sensor network design with improved water quality models at cross junctions", 10th International Water Distribution System Analysis Conference Kruger National Park, South Africa, http://dx.doi.org/10.1061/41024(340)94

55. *Zimmer A., Hill D.,* Minsker B., **Ostfeld A.**, Schmidt A. (2009). "Evolutionary optimization of combined sewer overflow control", EWRI ASCE Conference, Kansas, USA, http://dx.doi.org/10.1061/41036(342)110

56. *Dawsey W. J.,* Minsker B., and **Ostfeld A.** (2009). "Analysis of model sensitivity and uncertainty for chlorine transport and decay in a water distribution system", EWRI ASCE Conference, Kansas, USA, http://dx.doi.org/10.1061/41036(342)64

57. *Preis A.,* Whittle A., and **Ostfeld A.** (2009). "On-line hydraulic state prediction of water distribution systems", EWRI ASCE Conference, Kansas, USA, http://dx.doi.org/10.1061/41036(342)32

58. *Austin R. G.,* Choi C. Y., *Preis A.,* **Ostfeld A.**, and Lansey K. (2009). "Multi-objective sensor placements with improved water quality models in a network with multiple junctions", EWRI ASCE Conference, Kansas, USA, http://dx.doi.org/10.1061/41036(342)44

59. *Preis A.,* Whittle A., and **Ostfeld A.** (2009). "Multi-objective sensor network placement model for integrated monitoring of hydraulic and water quality parameters", World City Water Forum, Incheon, Korea, published on CD.

60. *Ohar Z.* and **Ostfeld A.** (2009). "Optimal placement of booster chlorination stations for disinfection by products minimization", in Integrating Water Systems, Boxall and Maksimovic (Eds.), Taylor and Francis Group, London, proceedings of Computing and Control in the Water Industry 2009 (CCWI09), Sheffield, UK, pp. 405 - 410.

61. *Preis A.,* Whittle A., **Ostfeld A.**, and *Perelman L.* (2009). "On-line hydraulic state estimation in urban water networks using reduced models'", in Integrating Water Systems, Boxall and Maksimovic (Eds.), Taylor and Francis Group, London, proceedings of Computing and Control in the Water Industry 2009 (CCWI09), Sheffield, UK, pp. 319 - 324.

62. *Perelman L.* and **Ostfeld A.** (2010). "Cluster analysis for water distribution systems security enhancement", EWRI ASCE Conference, Providence, Virginia, USA, http://dx.doi.org/10.1061/41114(371)440

63. *Ohar Z.* and **Ostfeld A.** (2010). "Alternative formulation for DBP's minimization by optimal design of booster chlorination stations ", EWRI ASCE Conference, Providence, Virginia, USA, http://dx.doi.org/10.1061/41114(371)433

64. *Zimmer A.,* Minsker B., Schmidt, A., and **Ostfeld A.** (2010). "Evolutionary algorithm memory enhancement for dynamic hydraulics", EWRI ASCE Conference, Providence, Virginia, USA,

http://dx.doi.org/ 10.1061/41114(371)232

65. *Perelman L.* and **<u>Ostfeld A.</u>** (2010). "Bayesian networks for estimating contaminant source and propagation in water distribution system using cluster structure", 12th Annual International Symposium on Water Distribution Systems Analysis, Tucson, Arizona, USA, http://dx.doi.org/10.1061/41203(425)40

66. *<u>Salomons E.</u>* and **Ostfeld A.** (2010). "Identification of possible contamination sources using reverse hydraulic simulation", 12th Annual International Symposium on Water Distribution Systems Analysis, Tucson, Arizona, USA, http://dx.doi.org/10.1061/41203(425)42

67. **<u>Ostfeld A.,</u>** *Salomons E.,* and Lahav O. (2010). "Chemical stability inclusion in optimizing the operation of water networks", 12th Annual International Symposium on Water Distribution Systems Analysis, Tucson, Arizona, USA, http://dx.doi.org/10.1061/41203(425)109

68. *<u>Housh M.</u>*, **Ostfeld A.**, and Shamir U. (2011). "Multi-year optimal management of quantities and salinities in water supply systems", EWRI ASCE Conference, Palm Springs, California, USA, http://dx.doi.org/10.1061/41173(414)443

69. *<u>Housh M.</u>*, **Ostfeld A.**, and Shamir U. (2011). "Optimal multi-year management of a water supply system under uncertainty: robust counterpart approach", EWRI ASCE Conference, Palm Springs, California, USA, http://dx.doi.org/10.1061/41173(414)321

70. *<u>Housh M.</u>*, **Ostfeld A.**, and Shamir U. (2011). "Search method for box-constrained optimization", EWRI ASCE Conference, Palm Springs, California, USA, http://dx.doi.org/10.1061/41173(414)303

71. *<u>Zimmer A.,</u>* Minsker B., Schmidt A., and **Ostfeld A.** (2011). "Benefits of meta-model validation for real-time sewer system decision support", EWRI ASCE Conference, Palm Springs, California, USA, http://dx.doi.org/10.1061/41173(414)304

72. *<u>Housh M.</u>*, **Ostfeld A.**, and Shamir U. (2011). "Optimal multi-year operation of a water supply system under uncertainty: robust methods", Risk in Water Resources Management (Proceedings of Symposium H03, held during IUGG2011 in Melbourne, Australia, July 2011) (IAHS Publication 347, 2011), http://cat.inist.fr/?aModele=afficheN&cpsidt=24546574

73. *Price E.* and **<u>Ostfeld A.</u>** (2011). "Headloss successive linearization for optimal operation of water distribution systems", in Urban Water Management: Challenges and Opportunities, Savic D. A., Kapelan Z., and Butler D. (Eds.), Proceedings of the CCWI11 Conference, Vol. 2, pp. 521 - 526.

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165. *Pecci F.,* Stoianov I., and **Ostfeld A.** (2022). "Optimal design-for-control of water distribution networks via convex relaxation." WDSA/CCWI Joint Conference, Valencia, 18-22 July 2022 Spain. https://drive.google.com/file/d/1IC5senrSQ2p3W-UXDoYlcdqT9yGuzzCj/view

166. *Kadinski L., Vizanko B.,* Berglund E., and **Ostfeld A.** (2022). "Utilizing machine learning in an agent-based modelling framework to optimize response to contamination events in water networks during a global pandemic." WDSA/CCWI Joint Conference, Valencia, 18-22 July 2022 Spain. https://drive.google.com/file/d/1UzhH6lKX6y7ffiXb1g8n8OQQApVYmELR/view

167. *Boindala S. P.* and **Ostfeld A.** (2022). "Multiobjective optimization of water distribution system under uncertainty using robust optimization." WDSA/CCWI Joint Conference, Valencia, 18-22 July 2022 Spain. https://drive.google.com/file/d/1G5dD1xh0Hfiv-4ePdfVydDVI85ooH-3e/view

168. *Zeidan M.* and **Ostfeld A.** (2022). "Unsteady friction modeling technique for Lagrangian approaches in transient simulations." WDSA/CCWI Joint Conference, Valencia, 18-22 July 2022 Spain. https://drive.google.com/file/d/1tWXDADKHoJPgQ-CRjFU8YaxVwAASl_Wa/view

169. *Kadinski L., Schuster J., Abhijith G. R., Hao C., Grieb A.,* Pu L., Ernst M., and **Ostfeld A.** (2022). "Machine learning methodologies to predict possible water quality anomalies as a support tool for online monitoring of organic parameters." WDSA/CCWI Joint Conference, Valencia, 18-22 July 2022 Spain. https://drive.google.com/file/d/1DlUcpBTWu48zsRefBCoQiVeJJXVowgTx/view

170. *Salcedo C. A.,* **Ostfeld A.**, and Boccelli D. L. (2022). "Optimal location of multiple confirmatory sampling locations in water supply networks in real-time using information theory." WDSA/CCWI Joint Conference, Valencia, 18-22 July 2022 Spain. https://drive.google.com/file/d/1j4LEcmq4Mp2DI2dTykKZC0StiKCmKlyF/view

171. *Vizanko B., Kadinski L.,* **Ostfeld A.**, Berglund E., and Cummings C. L. (2022). "Coupling agent-based modeling with water distribution system models to simulate social distancing and water infrastructure performance during COVID-19." WDSA/CCWI Joint Conference, Valencia, 18-22 July 2022 Spain.

https://drive.google.com/file/d/1kZHjt9Y6CkqHa02IXNSVwHfBdDAhm67O/view

172. _Shmaya T.,_ Housh M., Pecci F., Baker K., Kasprzyk J. and **Ostfeld A.** (2023). "Conjunctive optimal operation of power and water networks." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/10.1061/9780784484852.081

173. _Shmaya T._ and **Ostfeld A.** (2023). "A graph-theory based PRV placement algorithm for reducing water age in water distribution systems." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/10.1061/9780784484852.076

174. _Perelman G._ and **<u>Ostfeld A.</u>** (2023). "What's next in water distribution systems management?" EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/abs/10.1061/9780784484852.098

175. _Perelman G._ and **Ostfeld A.** (2023). "Optimal operation of water distribution systems under uncertainty." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/10.1061/9780784484852.089

176. _Abhijith G.,_ Steffelbauer D., and **<u>Ostfeld A.</u>** (2023). "Towards digital twins for emerging contaminants in water distribution systems." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/abs/10.1061/9780784484852.096

177. _Abhijith G._ and **<u>Ostfeld A.</u>** (2023). "Inferring the stochasticity associated with modeling the biological stability of drinking water within distribution networks." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/abs/10.1061/9780784484852.086

178. _Abhijith G.,_ Salomons E., and **<u>Ostfeld A.</u>** (2023). "Enhancing the reliability of a contamination detection sensors network in water distribution systems during a cyber-attack." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/10.1061/9780784484852.001

179 _Boindala S. P.,_ Jayakrishnan G., and **<u>Ostfeld A.</u>** (2023). "Optimal booster chlorination scheduling in WDS under uncertainty: a robust counterpart approach." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/abs/10.1061/9780784484852.088

180. _Daniel I.,_ Kadinski L., Abhijith G., **Ostfeld A.,** and Cominola A. (2023). "A machine learning-based surrogate model for coupled hydraulic and water quality simulation in water distribution networks." EWRI Conference, Henderson Nevada, May 21-24 USA **(2nd best student paper of the conference).**
https://ascelibrary.org/doi/abs/10.1061/9780784484852.077

181. <u>Sitzenfrei R.</u>, Qiu M., **Ostfeld A.,** Savic D., and Kapelan Z. (2023). "A hybrid approach for considering topography in graph-based optimization of water distribution networks." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://ascelibrary.org/doi/abs/10.1061/9780784484852.078

182. Berglund E., *Vizanko B.,* Kadinski L., and **Ostfeld A.** (2023). "Coupling machine learning and agent-based modeling to characterize contamination sources in water distribution systems for changing demand regimes." EWRI Conference, Henderson Nevada, May 21-24 USA.
https://doi.org/10.1061/9780784484852.082

183. *Boindala S. P.*, Yousefian R., Duchesne S. and **Ostfeld A.** (2024). "Robust booster disinfection scheduling using incomplete mixing water quality model (EPANET-IMX)." EWRI Conference, Milwaukee, Wisconsin, USA May 19-22 USA.
https://ascelibrary.org/doi/abs/10.1061/9780784485477.122

184. *Balireddy R.,* Kuiry S. N., Chakravorty A., Abhijith G. R., and **Ostfeld A.** (2024). "Calculation of water age using electrical simulators." EWRI Conference, Milwaukee, Wisconsin, USA May 19-22 USA
https://doi.org/10.1061/9780784485477.114

185. *Shmaya T.*, *Perelman G.,* and **Ostfeld A.** (2024). "Conjunctive optimal design of water and power networks." EWRI Conference, Milwaukee, Wisconsin, USA May 19-22 USA
https://doi.org/10.1061/9780784484852.081

186. *Shmaya T.*, Pecci F, Housh M., and **Ostfeld A.** (2024). "OWPF solutions using polyhedral and conic relaxations." EWRI Conference, Milwaukee, Wisconsin, USA May 19-22 USA.
https://doi.org/10.1061/9780784485477.121

187. *Vizanko B., Shmaya T., Boindala S. P.,* **Ostfeld A.** and Berglund E. Z. (2024). "Operating water distribution systems for equitable access to clean water." EWRI Conference, Milwaukee, Wisconsin, USA May 19-22 USA.
https://ascelibrary.org/doi/10.1061/9780784485477.109

188. Pesantez J. E., Salazar A. T., Pasha F., and **Ostfeld A.** (2024). "Clustering analysis in water distribution systems for enhanced metering infrastructure retrofitting." EWRI Conference, Milwaukee, Wisconsin, USA May 19-22 USA.
https://doi.org/10.1061/9780784485477.115

189. *Perelman G.* and **Ostfeld A.** (2024). "Integrated optimal operation of water and power distribution systems under uncertainty: an adjustable robust optimization approach." EWRI Conference, Milwaukee, Wisconsin, USA May 19-22 USA.
https://ascelibrary.org/doi/10.1061/9780784485477.120

190. Wéber R., Tuyakbayev T., Abhijith G.R., Salomons E., Hős C. and **Ostfeld A.** (2024). "Backup design optimization for water distribution networks." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy.
https://www.mdpi.com/2673-4591/69/1/104

191. *Boindala S.P.,* Abhijith G.R., Ihjas K. and **Ostfeld A.** (2024). "Towards optimal scheduling of intermittent water supply system incorporating consumer behavior." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy.
https://www.mdpi.com/2673-4591/69/1/168

192. *Perelman G.* and **<u>Ostfeld A.</u>** (2024). "Data-enabled predictive control for optimal pressure management." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/5

193. <u>Zeidan M.</u>, Yondonjamts D., Nemeth M., Abhijith G.R., Wéber R. and **Ostfeld A.** (2024). "Transient flow dynamics in tesla valve configurations: insights from computational fluid dynamics simulations." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/195

194. *<u>Shmaya T.</u>* and **Ostfeld A.** (2024). "Inclusion of water age in conjunctive optimal operation of water and power grids." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/196

195. *Vizanko B.,* Shmaya T., Boindala S.P., **<u>Ostfeld A.</u>**, and Berglund E. (2024). "Operating water distribution systems for equitable access to clean water." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/194

196. *Perelman G.,* Romano Y. and **Ostfeld A.** (2024). "Optimizing time series models for water demand forecasting." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/9

197. Daniel I., Abhijith G.R., Kutz J.N., **Ostfeld A.,** and <u>Cominola A.</u> (2024). "Physics-informed machine learning for universal surrogate modelling of water quality parameters in water distribution networks." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/205

198. *<u>Korder K.,</u>* Salomons E., **Ostfeld A.**, and Li P. "Minimization of water age in water distribution systems under uncertain demand." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/17

199. *Perelman G.,* Shmaya T., Vrachimis S., Panteli M., Eliades D.G. and **Ostfeld A.** (2024). "Cooperative operational optimization of water and power systems under extreme conditions." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/14

200. <u>Wéber R.</u>, Sándor L., Horváth A., Barakka G., Abhijith G.R. and **Ostfeld A.** (2024). "Predicting contamination spreading in water distribution networks." WDSA CCWI 2024 Conference, Ferrara, Italy, July 1-4 Italy. https://www.mdpi.com/2673-4591/69/1/96

201. Boindala S. P., Abhijith G.R., Ihjas K., and **Ostfeld A.** (2024). "Ensuring equitable water access in intermittent water supply systems through operation

management." Water and Sustainable Development - 2024 (ICWSD:2024), Nagpur, India, November 8-9 India.

202. *Salazar A. T., Perlman G.,* **Ostfeld A.,** and Pesantez J. E. (2025). "Clustering and forecasting model for water distribution systems analysis." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.077

203. *Vizanko B.,* Komarovsky S., Zauscher E., **Ostfeld A.,** and Berglund E. (2025). "Equitable access to affordable and clean water in pre-pandemic, pandemic, and post-pandemic modes of work." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.056

204. *Shamaly R.,* Abhijith G. R., and **Ostfeld A.** (2025). "From traditional simulation to machine learning: a comparison of EPANET and physics-informed neural networks for water quality modeling." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.081

205. *Goldshtein I.,* Perelman G., Schuster A., and **Ostfeld A.** (2025). "Large language models for water distribution systems modeling and decision-making." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.086

206. *Perelman G.,* Navon A., Housh M, and **Ostfeld A.** (2025). "Adjustable robust optimization for integrated power and water systems under uncertainty." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.090

207. Boindala S. P., *Perelman G.* and **Ostfeld A.** (2025). "Robust sample average approximation for optimal chlorine disinfection under multiple uncertainties." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.093

208. Korder K., Salomons E., **Ostfeld A.,** and Li P. (2025). "Optimal sensor placement and PRV localization under demand uncertainty." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.094

209. Chan Y. F., Dziedzic R., *Perelman G.* and **Ostfeld A.** (2025). "Real-time pumping optimization of combined sewer overflow systems." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.069

210. *Shamaly R.,* Abhijith G. R., and **Ostfeld A.** (2025). "Streamlined models for predicting microbiological quality dynamics in distribution systems." EWRI Conference, Anchorage, Alaska, USA May 18-21 USA.
https://doi.org/10.1061/9780784486184.098

211. Boindala S. P., Abhijith G. R., Ijhas K., and **Ostfeld A.** (2025). "Equitable water access in systems with intermittent supply." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29920883.v1

212. Bansal M., Salomons E., Abhijith G. R., and **Ostfeld A.** (2025). "Route delineation of water and irrigation networks using evolutionary optimization." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29921180.v1

213. Penn R., Perelman G., and **Ostfeld A.** (2025). "Hybrid data-enabled predictive control for optimal operation of urban drainage systems." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29921174.v1

214. Boindala S. P., Abhijith G. R., Aumeie B. M., Steger A., Salomons E., Roy Elkayam R., Drewes J. E., and **Ostfeld A.** (2025). "Challenges in mathematical modelling of anti-microbial resistance fate in water systems." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29920910.v1

215. Boindala S. P. , Perelman G., and **Ostfeld A.** (2025). "Optimal booster disinfection scheduling, considering demands and disinfection reaction rate uncertainty." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29920868.v1

216. Perelman G., Housh M., Navon A., and Ostfeld A. (2025). "Adjustable robust optimization for integrated power and water systems via equality constraint elimination." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29921168.v1

217. Wéber R., Sándor S., Horváth A., Kotay S., Mathers A., Abhijith G. R., Poretsky R., Hős C. and **Ostfeld A.** (2025). "Predicting biological activity in a p-trap using computational fluid dynamics." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29920937.v1

218. Boindala S. P., Yousefian R., Robles J., Duchesne S., and **Ostfeld A.** (2025). "Optimizing booster chlorination in water distribution networks under incomplete mixing conditions." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29920871.v1

219. Shamaly R., Abhijith G. R., and **Ostfeld A.** (2025). "From numerical models to physics informed neural networks: advancing water quality predictions in distribution systems." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29920877.v1

220. Hős C., Antal D., **Ostfeld A.**, and Abhijith G. R. (2025). "On the use of entropy for designing safe water distribution systems in the case of multiple sources." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29921255.v1

221. Wéber R., Sándor L., Abhijith G. R., Boindala S. P., and **Ostfeld A.** (2025). " CFD simulations of incomplete mixing at pipe junctions: junction angle influence and predictive modelling." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29920880.v1

222. Narwariya V. S., Cominola A., **Ostfeld A.,** and Abhijith G. R. (2025). "Machine learning-based surrogate modeling of water quality dynamics in a 'universal' distribution pipe." WDSA CCWI 2025 Conference, Sheffield, September 1-3 UK. https://doi.org/10.15131/shef.data.29921096.v1

Participation in organizing conferences

1. Environmental Water Research Institute, ASCE, First Symposium on Environmental and Water Resources Systems Analysis, Roanoke, Virginia, USA, May 2002, Session proposer and session moderator of: "Reliability Integration in Optimal Planning, Design, and Operation of Water Networks", session moderator of: "Decision Support Systems for Water Supply Management Strategies".

2. The IWA 9th International Specialized Conference on Watershed and River Basin Management, IWA, Edinburgh, Scotland, September 2002, Member of the organizing and program committee, session moderator of: "Water Supply Sources".

3. ASCE-EWRI (Environmental Water Research Institute) Annual Conference, Philadelphia, USA, June 2003, Member of the organizing and program committee of Water Distribution Systems Analysis, and moderator of four sessions.

4. CCWI03 (Computing and Control for the Water Industry & WATERSAVE Network, London, UK), September 2003, Member of the Scientific and Advisory Committee, and session chair of: "Network optimization I", and of "Water Economics."

5. IWA 4th World Water Congress, 20th – 24th September 2004, Marrakech, Morocco, workshop organizer and chair on "River Basin Management Using Machine Learning", and chair of sessions on "Systems for Circumstances: Modeling and Decision Support I & II."

6. The first International Mediterranean Modeling Multi-conference (13M), Genova, Italy, October, 2004, Member of the International Program Committee.

7. Decision Support in the Water Industry Under Conditions of Uncertainty, ESPRC Research Network Seminar ACTUI2004, 24th – 25th March 2004, University of Exeter, UK, Chair of Part Three: "General Decision Support".

8. ASCE-EWRI (Environmental Water Research Institute) Annual Conference, Salt Lake City, Utah, USA, June 2004, Member of the organizing and program committee of Water Distribution Systems Analysis, and moderator of: "Transient Analysis and Leak Detection".

9. International Conference on Hydro-Science and Engineering, Cairns, Australia, May – June 2004, member of the organizing committee for sessions on "Current Problems of Water Distribution Systems".

10. CCWI05 [Computer and Control in the Water Industry, Exeter, England], September 2005, member of the International Technical Committee, and chair of session on: "Steady-state and Transient Analysis, Modeling and Simulation."

11. 1st Open International Conference on Modeling & Simulation June 12th – 15th 2005 – ISIMA / Blaise Pascal University – France, Member of the International Program Committee.

12. The Annual Operations Research Society of Israel (ORSIS) Conference, May 2004, session organizer and session chair of: "Application of Operation Research to Natural Resources Systems".

13. The IWA 10th International Specialized Conference on Watershed and River Basin Management, IWA, Calgary, Canada, September 2005, Member of the organizing and program committee, and moderator of two sessions: "Monitoring and Modelling" and "Pollution Sources and Control/Water Resources Management".

14. The 8th Annual Water Distribution System Analysis Symposium, University of Cincinnati, Cincinnati, Ohio, USA, August 2006, Member of the international program committee.

15. Challenges in Water Research for Israel and the Region, Dedication of the Grand Water Research Institute Building, May 2005, Member of the Conference Organizing and of the Poster Session and Competition Committees.

16. Watermatex 2007: May 2007, Washington DC, USA: IWA Specialist Groups Conference on Systems Analysis and Integrated Assessment and on Watershed and River Basin Management, joint initiative with Prof. Peter Vanrolleghem, Chair of the IWA specialist group on Systems Analysis and Integrated Assessment.

17. US70, a National Symposium on Methods and Models for Decision Making in Water Resources Systems, the Grand Water Research Institute, November 2006, symposia organizer.

18. Waters in protected areas, Dubrovnik, Croatia, 2007, Member of the scientific committee.

19. The 9th Annual Water Distribution System Analysis Symposium, EWRI-ASCE Conference, Tampa, Florida, USA, May 2007, Member of the program committee.

20. Member of the Invited Scientific Committee for Water Management Challenges in Global Change CCWI2007 and SUWM2007 Conference, De Montfort University, Leicester, United Kingdom, and chair of sessions on Water Quality and Treatment, and on Hydraulic Modelling of Steady State and Transients.

21. International conference on water distribution systems, Kruger National Park, South Africa 2008, Member of the conference International Advisory Committee.

22. International Water Research (IWA) 11th International River Basin and Watershed Management Special Conference, September 2008, Budapest, Hungary, Member of the Program Committee.

23. Track chair of the Water Distribution Systems Analysis Symposium, EWRI-ASCE Conference, Honolulu, Hawaii, USA, May 2008.

24. Track chair of the 11th Water Distribution Systems Analysis Symposium, EWRI-ASCE Conference, Kansas City, Missouri, USA, May 2009.

25. CCWI09 [Computer and Control in the Water Industry, Sheffield, England], September 2009, member of the Scientific Advisory Committee.

26. The 12th Annual Water Distribution Systems Analysis Symposium, EWRI-ASCE Conference, Tucson, Arizona, USA, September 2010, Member of the program and organizing committee.

27. Track chair of the Water Distribution Systems Analysis Symposium, EWRI-ASCE Conference, Providence, RI, USA, May 2010.

28. Member of session's organization for Environmental Cyber-Sensing, EWRI-ASCE Conference, Providence, RI, USA, May 2010.

29. Track chair of the 13th Water Distribution Systems Analysis Symposium, EWRI-ASCE Conference, Palm Springs, California, USA, May 2011.

30. Member of the WATERMATEX2011 International Scientific Committee for the WATERMATEX symposium, San Sebastian, Spain, June 2011.

31. CCWI11 [Computer and Control in the Water Industry, Exeter, England], September 2011, member of the International Scientific Committee, and moderator of: "Systems Modeling, Optimization and Decision Support."

32. International Water Research (IWA) 12th International River Basin and Watershed Management Special Conference, September 2011, Recife, Brazil, Member of the Program Committee.

33. The first annual Technion Environmental, Water, and Agricultural Engineering departmental symposium on Water Resources, Hydrology, and Marine Systems, January 2012 (with Uri Shavit and Carlos Dozoretz).

34. Track chair of the Water Distribution Systems Analysis Symposium, EWRI-ASCE Conference, Albuquerque, NM, USA, May 2012.

35. Member of session's organization for Environmental Cyber-Sensing, EWRI-ASCE Conference, Albuquerque, NM, USA, May 2012.

36. Program Co-Chair jointly with Zheng Wu, 2013 Cloud Technology Symposium, EWRI-ASCE Conference, Cincinnati, Ohio, USA, May 2013.

37. Track chair (together with Morris Maslia and Kelly Brumbelow) of the 15th Water Distribution Systems Analysis Symposium, EWRI-ASCE Conference, Cincinnati, Ohio, USA, May 2013.

38. CCWI13 [Computer and Control in the Water Industry, Perugia, Italy], September 2013, member of the International Scientific Committee.

39. 1st Workshop on Computational Intelligence and Critical Infrastructures (CICS 2013), as part of the AIAI2013 9th International Conference on Artificial Intelligence Applications and Innovations, Cyprus, September 2013, member of the program committee.

40. The IWA 12th International Specialized Conference on Watershed and River Basin Management, IWA, San-Francisco, USA, September 2014, member of the program committee.

41. Member of the international scientific committee of the 16th Water Distribution Systems Analysis Conference, Bari, Italy, July 2014.

42. Member of the scientific program committee of the 9th IWA Symposium on Systems Analysis and Integrated Assessment, Gold Coast, Australia, 2015.

43. CCWI15 [Computer and Control in the Water Industry, Leicester, UK], September 2015, member of the International Scientific Committee.

44. 43rd Annual Conference on Science and the Environment, Hebrew University of Jerusalem, 2015, member of the program and scientific committee.

45. Watermatex 2015 [9th IWA Symposium on Systems Analysis and Integrated Assessment, Queensland, Australia, June 2015], member of the Scientific Committee.

46. Member of the organizing committee of the 17th Water Distribution Systems Analysis Conference, Cartagena, Colombia, July 2016.

47. Member of the organizing committee of the International Conference on Oil, Gas and Petrochemistry (Petrochemistry-2016, http://petrochemistry.madridge.com/themes.php), Dubai, United Arab Emirates (UAE), December, 2016.

48. Member of the advisory committee of IWPE-2017 (Wuhan) conference.

49. Member of the program committee of HASE 2017, Singapore, January 2017.

50. CCWI17 [Computer and Control in the Water Industry, Sheffield, England], September 2017, member of the Scientific Advisory Committee.

51. 14th International Water Association Specialist Conference on Watershed and River Basin Management, Skukuza Camp, Kruger National Park, October 2017, member of the Scientific and Program Committee.

52. Member of the organizing committee of the International Conference on Oil, Gas and Petrochemistry (Petrochemistry-2017, October 23-25, 2017 Abu Dhabi, UAE, http://scientificfederation.com/petrochemistry-2017/).

53. WDSA/CCWI18 [Water Distribution Systems Analysis/Computer and Control in the Water Industry], Ontario, Canada, July 2018, member of the International Scientific Committee.

54. EPANET Summit, Reston VA, April 2018, member of the Organizing Committee.

55. Member of the international scientific committee of the 38th World Congress of IAHR (International Association for Hydro-Environment Engineering and Research), Panama, 2019.

56. Member of the organizing committee of the Cyber-Security of Water Distribution Systems: Policy Implications – Stakeholders Workshop, Grand Water Research Institute, Technion, Haifa, Israel, March, 2019.

57. Member of the 15th IWA Specialist Conference on Water Basin and River Management, Vietnam, February 2020.

58. WDSA/CCWI20 [Water Distribution Systems Analysis/Computer and Control in the Water Industry], Beijing, China, September 2020, member of the International Scientific Committee.

59. Member of the Organizing Committee of the 3rd Edition of World Congress on Geology & Earth Science (Geoscience-2020)], Rome, Italy September 2020.

60. Session chair of: "Advances in water distribution system water quality modeling 1", and of "Advances in water distribution system water quality modeling 2" at EWRI Annual Conference, Milwaukee, WI, June 7-11, USA.

61. WDSA/CCWI22 [Water Distribution Systems Analysis/Computer and Control in the Water Industry], Valencia, Spain July 2022, member of the Steering and Scientific Committee.

62. WDSA/CCWI22 [Water Distribution Systems Analysis/Computer and Control in the Water Industry], Valencia, Spain July 2022, sessions moderator.

63. CCWI23 [Computer and Control in the Water Industry], Leicester, UK, September 2023, member of the Scientific Committee.

64. AIMS Rwanda International Conference on Machine Learning, Optimization and Applications, Kigali, Rwanda, July 2023, member of the Scientific Committee.

65. WDSA/CCWI24 [Water Distribution Systems Analysis/Computer and Control in the Water Industry], Ferrara, Italy, July 2024, member of the Scientific Committee.

66. The 8th International Technical Conference on Frontiers of Hydraulic and Civil Engineering Technology (HCET 2023), Wuhan, China, September 23, member of the HCET Technical Program Committee

67. The 14th IWA Specialized Conference on the Design, Operation and Economics of Large Wastewater Treatment Plants, 8-12 September 2024, Budapest, Hungary, member of the Scientific Committee.

68. EWRI 2024 [Advances in water distribution system water quality modeling II], Milwaukee, USA, May 2024, session moderator.

69. EWRI 2024 [Water resources modeling, management, and policy-IV], Milwaukee, USA, May 2024, session moderator.

70. CCWI25 [Computer and Control in the Water Industry], Sheffield, UK, September 2025, member of the Scientific Committee.

71. EWRI 2025 [G.V. Loganathan memorial track on reservoir systems operation], Anchorage, USA, May 2025, session moderator.

72. EWRI 2025 [Technology and innovation for resiliency and adaptation], Anchorage, USA, May 2025, session moderator.

73. EWRI 2025 [Water distribution system data ,analytics, system operation, and control - II], Anchorage, USA, May 2025, session moderator.

74. CCWI 2025 [Intermittent water supply systems], Sheffield, UK, September 2025, session moderator.

75. CCWI 2025 [Data driven modelling for water distribution systems], Sheffield, UK, September 2025, session moderator.

76. ASCE 2027 Technical Committee member (representing the Planning and Management council)

SPECIAL PROFESSIONAL ACTIVITIES

Ostfeld A., "Flood Reservoirs", a one-day course at the joint Israeli, Palestinian, and Jordanian, Regional Operational Hydrology Training project, Ramala, March 2000.

October 2014 - Member of the User Advisory Group (UAG) for the FP7 SAFEWATER project on detection and mitigation of CBRN events in drinking water.

February 2017 - Advisor for the Center for Infrastructure Modeling and Management http://ncimm.org/AboutUs.html

Conference presentations/seminars with abstract only
(Speakers underlined, graduate students/research assistants - in italics)

Shlomi S., **Ostfeld A.**, Rubin H., and Shoemaker C. A. (2003). "A polygonal cells approach for optimal selection of monitoring wells", AGU Fall 2004 Meeting.

Shlomi S., **Ostfeld A.,** Rubin H., and Shoemaker C. A. (2004). "Optimal selection of pumping wells for groundwater contamination monitoring", the Annual Operations Research Society of Israel (ORSIS) Conference (abstract in Hebrew).

Preis A. and **Ostfeld A.** (2004). "A machine learning model for quantity - quality flow predictions in watersheds", the Annual Operations Research Society of Israel (ORSIS) Conference (abstract in Hebrew).

Rom M., Kronaveter L., and **Ostfeld A.** (2005). "Use of data driven modeling for Blue Algae predictions in Lake Kinneret". Early project results presentation at a one day colloquium on "Causes and Processes Involved at the Instability of the Phytoplankton Population at Lake Kinneret", Nof Ginosar, Lake Kinneret, Israel.

Markel D., Evans B., Goldwasser K., **Ostfeld A.,** Friedler E., and Somma F. (2007). "Using a GIS-based load transfer model (AVGWLF) for improving management of Lake Kinneret watershed, Israel", EGU General Assembly 2007, Geophysical Research Abstracts, 9, 10939.

Housh M., **Ostfeld A.**, Shamir U. (2008). "Optimal multi-year management of a water supply system under uncertainty", the Annual Operations Research Society of Israel (ORSIS) Conference (abstract in Hebrew).

Kronaveter L., Rom M., and **Ostfeld A.** (2008). "A neural network learning system for prediction of toxic Cyanobacteria in Lake Kinneret", the Annual Operations Research Society of Israel (ORSIS) Conference (abstract in Hebrew).

Perelman L. and **Ostfeld A.** (2010). "Sampling of rare events in large water supply systems for systems security", 12th Annual International Symposium on Water Distribution Systems Analysis, Tucson, Arizona, USA, published on CD.

Housh M., **Ostfeld A.**, Shamir U (2011). "Optimal multi-year management of a water supply system under uncertainty: robust counterpart approach", the Annual Operations Research Society of Israel (ORSIS) Conference (abstract in Hebrew).

Arad J., Perelman L., and Ostfeld A (2011). "Water security event detection in water distribution systems through water quality indicators", the 19th International Conference of Environmental Indicators, Haifa, Technion.

Housh M., **Ostfeld A.**, and Shamir U. (2011). "Optimal management of a water supply system under uncertainty: stochastic approach", EWRI ASCE Conference, Palm Springs, California, USA.

Housh M., **Ostfeld A.**, and Shamir U. (2011). "Optimal management of a water supply system under uncertainty: the Info-Gap approach", EWRI ASCE Conference, Palm Springs, California, USA.

Housh M., **Ostfeld A.**, and Shamir U. (2011). "Limited multi-stage programming: a case study for multiyear management of water supply system", EWRI ASCE Conference, Palm Springs, California, USA.

Ostfeld A. (2011). "Decomposition for optimal reliable design and operation of water distribution systems", EWRI ASCE Conference, Palm Springs, California, USA.

Ostfeld A. (2011). "Drinking water distribution systems security modeling and challenges", EWRI ASCE Conference, Palm Springs, California, USA.

Zimmer A., Minsker B., Schmidt A., and **Ostfeld A.** (2011). "Hydraulic modeling and evolutionary optimization for enhanced real-time decision support of combined sewer overflows." AGU Fall 2011 Meeting.

Zimmer A., Minsker B., Schmidt A., and **Ostfeld A.** (2013). "Computationally implicit sewer hydraulics for real-time decision support." EWRI Conference, 19-23 May 2013, Cincinnati, Ohio, USA.

Shamir U., Housh M., and **Ostfeld A.** (2014). "Management of water systems under hydrological uncertainty." Dooge Nash International Symposium, Dublin, Ireland.

Oliker N. and **Ostfeld A.** (2014). "Water quality event detection from multiple sensors." EWRI Conference, 1-5 June 2014, Portland, Oregon, USA.

Ostfeld A. (2014). "Management of water distribution systems." Environmental & Hydraulics/Hydrology Lyles School of Civil Engineering Seminar, August 25, 2014 Purdue University, West Lafayette, USA.

Ostfeld A. (2014). "Management of water distribution systems." Zachry Department of Civil Engineering Seminar, August 27, 2014 Texas A&M University, College Station, USA.

Zimmer A., **Ostfeld A.**, Schmidt A., and <u>Minsker B.</u> (2014). "Improving computational efficiency of model predictive control genetic algorithms for real-time decision support." AGU Fall Meeting, 15-19 December 2014, San Francisco, USA.

Salomons E. and **<u>Ostfeld A.</u>** (2015). "Multi-objective optimal disinfection for water distribution systems following a contamination event." EWRI Conference, 17-21 May 2015, Austin, Texas, USA.

<u>Rasekh A.,</u> Sankary N., Wu R., Oliker N., **Ostfeld A.,** , Banks M. K., and Porterfield M. (2015). "Use of computer modeling for operation of inline mobile sensors in water distribution systems." EWRI Conference, 17-21 May 2015, Austin, Texas, USA.

Cofalla C., Döring R., <u>Nüßer L.</u>, Steffens S., Thomas-Benjamin Seiler T.-B., Oliker N., Salomons E., **Ostfeld A.**, Hollert H., and Schüttrumpf H. (2015). "Contaminants in urban water cycle detection by hydrotoxicological experiments." 9th International SedNet conference, 23-26 September 2015, Kraków, Poland.

<u>Galelli S.</u>, Taormina R., Tippenhauer N., Salomons E., and **Ostfeld A.** (2016). "Vulnerability of water supply systems to cyber-physical attacks." Session HS5.6 Water Resources Management and Policy in a Changing World, Geophysical Research Abstracts Vol. 18, EGU2016, 17–22 April 2016, Vienna, Austria.

<u>Wu R.</u>, Rasekh A., Cheng L., Aghashahi M., Vaddiraju S., **Ostfeld A.**, and M. Katherine Banks K. M. (2016). "Development of an inline mobile sensor for monitoring trace contaminant in water distribution system." EWRI Conference, 22-26 May 2016, West Palm Beach, Florida, USA.

<u>Ostfeld A.</u> (2016). "Management of water distribution systems: overview and challenges." KWR Watercycle Research Institute, 13 September 2016, Nieuwegein, Netherlands (invited seminar presentation).

<u>Nuesser L.</u>, Salomons E., Skulovich O., Sara Hartmann S., Ganal C., Cofalla C., Schuettrumpf H., **Ostfeld A.**, Hollert H. and Seiler T.-B. (2016). "Sensitivity of zebrafish larvae behavior in the context of on-line contamination event detection in water distribution systems." 7th SETAC World Congress/SETAC North America 37th Annual Meeting, Orlando, FL.

<u>Taormina R.,</u> Galelli S., Tippenhauer N. O., Salomons E., and **Ostfeld A.** (2017). "EpanetCPA: a MATLAB toolbox for simulating cyber-physical attacks on water distribution systems." EWRI Conference, 21-25 May 2017, Sacramento, California, USA.

<u>Nuesser, L.</u>, Johann, S., Kreutzer, A., Salomons, E., Skulovich, O., Hartmann, S., Ganal, C., Cofalla, C., Schuettrumpf, H., **Ostfeld A.,** Jørgensen, K., Kõuts, T., Hollert H. and Seiler, T.B. (2017). "Zebrafish larvae behavior as a biological early warning system for aquatic systems." Proceedings, SETAC Europe Annual Meeting 2017, Brussels.

Nuesser L., Johann S., Kreutzer A., Salomons E., Skulovich O., **Ostfeld A.**, Jørgensen K., Kõuts T. A., Hollert H., and Seiler T-B. (2017). "Effekte verschiedener Modell Substanzen auf das Schwimmverhalten von Embryonen des Zebrabärblings." 22. Jahrestagung SETAC GLB 2017, Neustadt an der Weinstraße, Germany.

Nuesser L., Steffens S., Seiler T., Ruchter N., Schumann M., Doering R., Bruell C., Schuettrumpf H., **Ostfeld A.**, Salomons E., Hollert H., and Brinkmann, M. (2018) "A versatile and low-cost open source pipetting robot for automation of toxicological and ecotoxicological bioassays." 28th SETAC Europe Annual Meeting 2018, Rome, Italy.

Qiu M., Housh M., and **Ostfeld A.** (2019). "WDSLib 1.1: A demand- and pressure-dependent simulation testbed for water distribution systems." CCWI 2019, the 17th Computer and Control for the Water Industry Conference, 1 - 4 September 2019, University of Exeter, UK.

Qiu M., Housh M., and **Ostfeld A.** (2019). "Distributed micro-storage tanks for pressure management in water distribution system." CCWI 2019, the 17th Computer and Control for the Water Industry Conference, 1 - 4 September 2019, University of Exeter, UK.

Qiu M. and **Ostfeld A.** (2019). "Dynamic clustering for real-time water distribution systems management." CCWI 2019, the 17th Computer and Control for the Water Industry Conference, 1 - 4 September 2019, University of Exeter, UK.

Zeidan M. and **Ostfeld A.** (2019). "Transient flow for water distribution system topology disclosure." CCWI 2019, the 17th Computer and Control for the Water Industry Conference, 1 - 4 September 2019, University of Exeter, UK.

Price E. and **Ostfeld A.** (2019). "Water distribution systems dynamic clustering using graph theory." CCWI 2019, the 17th Computer and Control for the Water Industry Conference, 1 - 4 September 2019, University of Exeter, UK.

Salomons S. and **Ostfeld A.** (2019). "A coupled K-means heuristic approach for single target signature identifications." Ministry of Science & Technology 2019 Workshop on the projects: "Resolving the "black box" of larval fish abundance and its sensitivity to climate change", and "Using a novel acoustic broadband echo sounder for fish identification and biomass assessment to optimize fisheries management in Lake Kinneret", 22 September 2019, Tel-Aviv University.

Taormina R., Galelli S., Salomons E., and **Ostfeld A.** (2020). "Simulating cyber-physical attacks altering water quality in water distribution systems." EWRI Conference, Henderson, NV, May 17-21, USA.

Babbar-Sebens M. and **Ostfeld A.** (2020). "Role of cyberinfrastructure for engaging multi-sectoral stakeholders in use-inspired and decision-relevant research on adaptation to climate change." AGU Fall Meeting, San Francisco, CA, December 7-11, iPoster https://agu2020fallmeeting-agu.ipostersessions.com/default.aspx?s=B1-86-78-95-37-FE-CF-21-EE-D0-61-5D-88-F8-C1-DF&guestview=true

Salcedo C., Lee S., *Kadinski L.*, **Ostfeld A.**, and Boccelli D. L. (2021). "Improving contaminant spread estimation through the consideration of hydraulic uncertainty and identification of multiple confirmatory sampling locations." EWRI Conference, Milwaukee, WI, June 7-11, USA

Salcedo C., **Ostfeld A.**, and Boccelli D. (2022). "Incorporation of demand uncertainty in the optimal location of confirmatory sampling locations in contaminant spread forecasting algorithms." EWRI Conference, Atlanta, GA, June 5-8, USA

Abhijith G. R. and **Ostfeld A.** (2022). "Post-treatment PFAS contamination of drinking water." WDSA/CCWI22 [Water Distribution Systems Analysis/Computer and Control in the Water Industry], Valencia, Spain July 2022.

Amare R., Cunha M., Salomons E., **Ostfeld A.** (2022). "Improving multi-objective optimization method NSGA II of water distribution systems." WDSA/CCWI Joint Conference, Valencia, 18-22 July 2022 Spain.

Zeidan M. and **Ostfeld A.** (2023). "Laceration of pipeline inner walls using unsteady skin friction." EWRI Conference, Henderson Nevada, May 21-24 USA.

Zeidan M. and **Ostfeld A.** (2023). "Adopting the Tesla valve as a transient protection device." EWRI Conference, Henderson Nevada, May 21-24 USA.

Ormsbee L., Lingireddy S., Boulos P., Kamojjala S., and **Ostfeld A.** (2023). "The history and legacy of Don J. Wood and KYPIPE." EWRI Conference, Henderson Nevada, May 21-24 USA.

Boindala S. P., Jayakrishnan G., and **Ostfeld A.** (2023). "Optimizing source treatment levels in water distribution systems under mixing uncertainty at cross junctions." EWRI Conference, Henderson Nevada, May 21-24 USA.

Zeidan M., Németh M., Wéber R., and **Ostfeld A.** (2023)."Assessing the efficacy of Tesla valves as transient protection devices in water distribution systems." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Shmaya T., Perelman G., and **Ostfeld A.** (2023)."Coupled systems design optimization – water and power networks." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Vizanko B., Kadinski L., Hailu A. H., Berglund E. Z., and **Ostfeld A.** (2023)."Coupling machine learning and agent-based modeling to manage contamination of water distribution systems under changing demands." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Abhijith G. R., Leonidou N., Dräger A., and **Ostfeld A.** (2023)."Exploring the cause-effects of quality fluctuations in drinking water distribution systems by applying systems biology approaches." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Abhijith G. R., Naidu M. N., Boindala S. P., Vasan A., and **Ostfeld A.** (2023). "Exploring the consumer behavior in water supply systems with uncertain and irregular intermittency." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Abhijith G. R., Daniel I., Cominola A., **Ostfeld A.** (2023). "Hybrid mechanistic and machine learning-based modeling approach for predicting quality fluctuations in drinking water distribution systems." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Amare M., Cunha M., Salomons E., and **Ostfeld A.** (2023). "Improving multi-objective optimization method NSGA II of water distribution systems." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Abhijith G. R. and **Ostfeld A.** (2023). "Introducing EPyT-C: An independent Python-based water quality modeling extension for EPANET." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Boindala S. P., Jaykrishnan G., and **Ostfeld A.** (2023). "Optimal booster chlorination injection in water distribution systems under uncertainty: a robust optimization approach." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Perelman G. and **Ostfeld A.** (2023). "Optimal operation of water distribution systems under uncertainty using adjustable robust optimization." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Wéber R., Sándor L., Abhijith G. R., and **Ostfeld A.** (2023). "Predicting chlorine distribution with computational fluid dynamics on a sample network." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Abhijith G. R. and **Ostfeld A.** (2023). "Redefined entropy index for water distribution systems analysis." CCWI 2023, the 19th Computer and Control for the Water Industry Conference, 4 - 7 September 2023, De Montfort University, Leicester, UK.

Levy M., Hadar I., Hartman A., Housh M., Ayalon O., Nir B., and **Ostfeld A.** (2023). "Muddy waters: design thinking for understanding the multi- organizational problem space of the water sector." REFSQ Conference, Mon 8 - Thu 11 April 2024 Winterthur, Switzerland.

Diao K., Abhijith G. R., Salomons E., **Ostfeld A.,** and Ulanicki B. (2025). "The e-Favor modeling approach for detecting water leakage in water distribution systems." EWRI Conference, Anchorage, Alaska, USA, May 18-21.

Perelman G. and **Ostfeld A.** (2025). "Data enabled predictive control for water systems optimal operation." EWRI Conference, Anchorage, Alaska, USA, May 18-21.

Perelman G. and **Ostfeld A.** (2025). "Equitable water access in intermittent water supply systems." EWRI Conference, Anchorage, Alaska, USA, May 18-21.

Korder K., Salomons E., **Ostfeld A.,** and Li. P. (2025). "Optimal operational planning under uncertain demand and flexible electricity tariffs." EWRI Conference, Anchorage, Alaska, USA, May 18-21.

Boindala S. P. and **Ostfeld A.,** and Li. P. (2026). "Distributionally robust data-enabled predictive control for optimal chlorine control in water distribution systems." EWRI Conference, Mobile, Alabama, USA, April 26-29 (to be presented).

Boindala S. P., Abhijith G. R., Ijhas K., and **Ostfeld A.,** and Li. P. (2026). "Rethinking Hydraulic Modelling in Intermittent Water Supply: Capturing the Infrastructure–Consumer Feedback Loop." EWRI Conference, Mobile, Alabama, USA, April 26-29 (to be presented).

Hosseini S. H. , Zolghadr-Asli B., Tenkanen H., Madani K., Matin M. A., Demir I., **Ostfeld A.,** Singh V. P., and Savic D. (2026). "Large language model-based multi-agent systems: the next frontier in digital water engineering." EGU General Assembly, Vienna, Austria, May 3-8 (to be presented).