

RESUME

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ACADEMIC DEGREES

Ph.D. 2021, Faculty of Civil and Environmental Engineering, Technion, Direct course (ongoing)
B.Sc. 2013, Faculty of Civil and Environmental Engineering, Technion, Final grade: 88, Cum Laude

PROFESSIONAL EXPERIENCE

2018-2021 Modeling Engineer, Mekorot – Israel National Water Company
2017-2018 Data Analyst, BiMarket – Construction management AI startup (closed)
2013-2017 Water Supply Engineer and Project Manager, Ecolog Engineering Ltd.

TEACHING EXPERIENCE

Statistics (undergraduate) – Teaching assistant
Systems Analysis (undergraduate) - Teaching assistant

AWARDS AND HONORS

2022-2023 Climate scholarship KKL-JNF

PUBLIC PROFESSIONAL ACTIVITIES

Reviewer of journals: Water Resource Planning and Management, Water Resources Management
Contributor to the hydraulic modeling open-source software (EPANET) community
Engineers Without Borders – Water access to communities in developing countries

RESEARCH INTERESTS

My research focuses on optimization and decision making in water resources and particularly water distribution systems. Currently, I'm working on my Ph.D. entitled "Optimal Operation of Water Distribution Systems Under Uncertainty". My research goal is to adopt state of the art development in data science and optimization theory to cope with the major challenges facing the management of water and energy systems.

PUBLICATIONS

Refereed papers in professional journals

- 1) Perelman, G., Fishbain, B. (2022) Critical Elements Analysis of Water Supply Systems to Improve Energy Efficiency in Failure Scenarios. *Water Resour Manage* 36, 3797–3811.
<https://doi.org/10.1007/s11269-022-03232-y>
- 2) Levinas, D., Perelman, G., Ostfeld, A. (2021) Water leak localization using high-resolution pressure sensors. *Water (Switzerland)* 13, 1–12.
<https://doi.org/10.3390/W13050591>
- 3) Perelman, G., Ostfeld, A. (2021). Optimal Wellfield Operation under Water Quality Constraints. *Journal of Water Resources Planning and Management* 147, 1–14.
[https://doi.org/10.1061/\(asce\)wr.1943-5452.0001391](https://doi.org/10.1061/(asce)wr.1943-5452.0001391)

Papers in refereed conference proceedings

- 1) Perelman, G., Xing, L., Housh M., Kandiah V., Fishbain B., Shafiee E. (2022). Optimizing the Performance of Water Distribution System Under Intermittent Supply Conditions Using a Heuristic Technique. WDSA-CCWI Joint Conference, Valencia, Spain, 18-22 July 2022.
<https://drive.google.com/file/d/1dfyFAkD9GkfXQ8t6roZbo9tREmUtzNN6/view>
- 2) Perelman G. and Ostfeld A. (2023). "What's next in water distribution systems management?" EWRI Conference, Henderson Nevada, May 21-24 USA (to be presented). 177. Perelman G. and Ostfeld A. (2023).
- 3) "Optimal operation of water distribution systems under uncertainty." EWRI Conference, Henderson Nevada, May 21-24 USA (to be presented)

Conference presentations – Abstract only

- 1) Perelman, G., Fishbain, B. (2022). Synthesizing water-related time series for simulation studies while maintaining the original signal's statistical moments. EGU General Assembly, Vienna, Austria 23-27 May 2022.
<https://doi.org/10.5194/egusphere-egu22-8805>