

Ziv Moreno

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Date of birth: 03/06/1983

Marital status: Married with 2 children

Nationality: Israeli and Italian

Education

- 2015 – 2019 **Doctor of Philosophy, Mechanical Engineering**, Tel Aviv University, School of Mechanical Engineering, Tel Aviv, Israel.
Thesis: *Stochastic modeling of pollutant transport under remediation*
Supervisors: Dr. Amir Paster and Prof. Gedeon Dagan
- 2011 – 2014 **Master of Science, Environmental Science** (GPA 92), Technion - Israel Institute of Technology, Faculty of Civil and Environmental Engineering, Haifa, Israel.
Thesis: *Estimating aquifer recharge below agricultural fields using electrical resistivity methods*
Supervisor: Prof. Alex Furman
- 2006 – 2010 **Bachelor of Science, Atmosphere Science and Oceanography** (GPA 91), Hebrew University of Jerusalem, Faculty of Earth Science, Jerusalem, Israel
Seminar: *Relative humidity effect on the radiant cooling of ammonium sulfate*

Research Interests

- Stochastic hydrology
- Contaminant transport in porous medium
- Hydro-geophysics
- Vadose zone and groundwater hydrology
- Soil science

Professional Experience

- 2014 – 2015 **Research Staff**, Hydro-geophysics laboratory, Technion - Israel Institute of Technology, Faculty of Civil and Environmental Engineering, Haifa, Israel
Supervisor: Prof. Alex Furman
- 2008 – 2010 **Research Assistant**, Cosmogenic isotopes laboratory, Hebrew University of Jerusalem, Faculty of Earth Science, Jerusalem, Israel
Supervisor: Dr. Arie Matmon

Teaching Experience

- 2017 – 2019 **Teaching Assistant**, Tel Aviv University, School of Mechanical Engineering, Tel Aviv, Israel
- *Mathematical methods for engineers* (graduate)
- 2012 – 2015 **Teaching Assistant**, Technion - Israel Institute of Technology, Faculty of Civil and Environmental Engineering, Haifa, Israel
- *Introduction to flow and pollution in soils* (undergraduate)
 - *Physics of porous medium* (graduate & undergraduate)
 - *Contaminant transport processes in aquifers and remediation* (graduate & undergraduate)

Publications

- **Moreno Z.** and A. Paster (2019), A Genetic Algorithm for Stochastic Inversion in Contaminant Subsurface Hydrology, *Groundwater*, <https://doi.org/10.1111/gwat.12863>.
- **Moreno Z.** and A. Paster (2018), Prediction of pollutant remediation in a heterogeneous aquifer in Israel: Reducing uncertainty by incorporating lithological, head and concentration data. *Journal of Hydrology*, 564, 651-666.
- **Moreno, Z.** and A. Paster (2017), Prediction of Remediation of a Heterogeneous Aquifer: A Case Study, *Groundwater*, 55, 428-439.
- Winters G., Ryvkin I., Rudkov T., **Moreno Z.**, Furman A. (2015), Mapping underground layers in the super arid Gidron Wadi using electrical resistivity tomography (ERT), *Journal of Arid Environments*, 121, 79-83.
- **Moreno Z.**, Arnon-Zur A., Furman A. (2015), Hydro-geophysical monitoring of orchard root zone dynamics in semi-arid region, *Irrigation Science*, 33(4), 303-318.

Presentations in Conferences

- **Moreno, Z.**, G. Dagan, and A. Paster (2018), Predicting remediation efficiency of polluted aquifers by comprehensive data assimilation and forward modelling (talk). *Computational methods of water resources*, 4-8/6/2018, Saint-Malo, France
- **Moreno, Z.**, A. Paster, and G. Dagan (2018), Predicting remediation efficiency of polluted aquifers by comprehensive data assimilation and forward modelling (talk). *European geosciences union*, 9-13/4/2019, Vienna, Austria
- **Moreno, Z.**, Paster A., Dagan G. (2017), Aquifer remediation – dealing with aquifer heterogeneity (talk). *The annual conference of Israel Association of Water Resources* (in Hebrew), 24/5/2017, Acko, Israel

- **Moreno, Z.**, Paster A., Dagan G. (2016), Aquifer remediation – comparing the prediction of different geostatistical approaches (talk). *Effects and treating methods of contaminations in soil and water, national conference* (in Hebrew), 28/9/2016, Tel Aviv, Israel
- **Moreno, Z.**, Paster A., Dagan G., Yakirevich A. (2016), Modeling remediation of a polluted aquifer using Geostatistical methods (talk). *The annual conference of Israel Association of Water Resources* (in Hebrew), 16/03/2016, Hisafin, Israel.
- **Moreno, Z.**, Paster A., Dagan G., Yakirevich A., Kouzntestov M. (2015), Modeling Remediation of a Polluted Aquifer in Israel (poster). *The MADE Challenge for Groundwater Transport in Highly Heterogeneous Aquifers: Insights from 30 Years of Modeling and Characterization at the Field Scale and Promising Future Directions*. Agu. 5-9/10/2015, Valencia, Spain.
- **Moreno Z.** and Furman A. (2014), Hydro-geophysical monitoring of orchard root zone dynamics in semi-arid region (talk). *The annual conference of Israeli Soil Science Society* (in Hebrew), 01/12/2014, Bet Dagan, Israel.
- **Moreno Z.** and Furman A. (2013), Characterization of orchards' wetting patterns by using electrical resistivity tomography (talk). *The annual conference of Israeli Soil Science Society* (in Hebrew), 01/12/2013, Haifa, Israel.
- **Moreno Z.** and Furman A. (2013), Mapping the vadose zone's volumetric water content via electrical tomography (talk). *Water Conference: Innovations in hydrology and water resources research fields* (in Hebrew), 13/06/2013, Jerusalem, Israel.