Bar Oryan

61 Rte 9W, Palisades, NY 10964 | boryan@ldeo.columbia.edu | https://baroryan.github.io/

Education

Doctor of Philosophy in Geophysics: Lamont-Doherty Earth Observatory, Columbia University, New York, USA. Advisors: Prof. Roger W. Buck. Prof. Michael Steckler.	*Sep 2016 – Current*

Master of Science in Geophysics: *July 2014 -*
Tel Aviv University, Tel Aviv, Israel. Advisor: Prof. Zvi Ben-Avraham.   *July 2016*

- Thesis: New heat flow measurements of the Dead Sea and its implication for the Dead Sea basin heat flow paradox.

Bachelor of Science in Physics and Geosciences: *Oct 2010-*
Tel Aviv University, Tel Aviv, Israel.   *Jun 2014*

Publications

- **Oryan, B**., & Buck, W. R. (2020). Larger tsunamis from megathrust earthquakes where slab dip is reduced. Nature Geoscience, 1-6.
- **Oryan, B**., Villinger, H., Lazar, M., Schwab, M. J., Neugebauer, I., & Ben-Avraham, Z. (2019). Heat flow in the Dead Sea from the ICDP boreholes and its implication for the structure of the basin. Quaternary Science Reviews, 210, 103-112.
- Malinverno, A., Cook, A. E., Daigle, H., & **Oryan, B**. (2018). Glacial cycles influence marine methane hydrate formation. Geophysical Research Letters, 45(2), 724-732.

In Preparation:

- **Oryan B**. & Savage H., Evidence for a weak Dead Sea Transform fault from revaluation of heat flow values in its proximity.
- **Oryan B**., M.S. Steckler, D. R. Mondal, S.H. Akhter, S. Singha, The Indo-Burma Detachment Geometry Constrained by an Updated Vertical and Horizontal GPS Velocity Field in Bangladesh.

Awards & Grants

• Chevron Student Incitive Fund. "Developing the LDEO PhenoCam network to track the fate of forest carbon from photosynthesis to growth" ($3,200).	*2020*
• Chateaubriand Fellowship. Four months of support to work with Dr. Jean-Arthur Olive at the Laboratoire de Géologie de l'Ecole Normale Supérieure (ENS).	*2020*
• Stroke Fund. Dept. of Earth and Environmental Sciences graduate student fieldtrip to Peru ($12,500).	*2019*
• Dean's fellow, Department of Earth and Environmental Sciences, Columbia University.	*2016*
• M.Sc. Excellence Scholarship, Tel Aviv University.	*2015*

Teaching Experience

• Instructor, Stroke Field Course, Department of Earth and Environmental Sciences, Columbia university. Led and organized a geological field trip to Peru.	*Summer 2019*
• Teaching assistant, Life Systems, Department of Earth and Environmental Sciences, Columbia University.	*Spring 2019*
• Teaching assistant, Geodynamics, Department of Earth and Environmental Sciences, Columbia University.	*Fall 2018*
• Teaching assistant, Lab in Geosciences, Tel Aviv University. Designed and developed a lab experiment emulating the heat flow of the Earth for an undergrad class.	*Fall 2015*
• AP calculus and electromagnetism tutor, undergrad students, Tel Aviv University.	*Fall 2014*
• Elementary school science teacher, Kathmandu, Nepal.	*Winter 2010*

Field Work

• HT-RESIST EM research cruise, New Zealand. Deployment and recovery of 120 EM receivers as well as 500 line-km of EM source.	*Winter 2019*
• Borehole temperature profile measurements, Dead Sea, Israel. ICDP Dead Sea borehole temperature measurement.	*Summer 2015*
• Thermal conductivity measurements, IODP core repository, Bremen, Germany. Thermal conductivity measurements of the ICDP Dead Sea cores using KD2 pro probe and optical apparatus.	*Summer 2014*

Outreach

• Permanent science writer at the Little Big Science NGO.	*2018 - current*
• Lamont Doherty research as art committee.	*2018*
• Lamont Doherty open house.	*2016 - current*
• Earth-Sun Day at the American Museum of Natural History.	*2017*

Other Professional Experience

- Oracle data base administrator, Visa Cal Ltd. *2011-2014*
- Oracle data base administrator, Glasshouse Ltd. *2007-2009*
- Oracle data base administrator, Israeli defense forces. *2004-2007*

Computational Skills

Programming languages:

- Python.
- C.
- Matlab.
- Fortran.
- Arduino.
- GPU CUDA Fortran.

Operating systems:

- Linux.
- Mac.
- Windows.

Languages

- Hebrew (native).
- English (proficient).