

KAUSHAL GIANCHANDANI

Affiliation : Fredy and Nadine Hermann Institute of Earth Sciences, Hebrew University of Jerusalem,
Edmond J. Safra Campus, Givat Ram, Jerusalem, Israel - 9190401
Email : kaushal.g@mail.huji.ac.il
Web : <https://kaushalgianchandani.github.io/>
Phone : +91-82801-18710 | +972-50-471-4621

RESEARCH INTEREST

(Physical, Paleo- & Exo-) Oceanography, Climate (Dynamics & Data Analysis), Nonlinear dynamics

EDUCATION

Hebrew University of Jerusalem, Israel Oct 2017 - present
Ph.D. in Oceanography
Thesis: Physical-biogeochemical dynamics of extreme paleoclimate events
Advisors: Prof. Hezi Gildor, Prof. Yosef Ashkenazy (Ben-Gurion Uni.) and Prof. Eli Tziperman (Harvard Uni.)

National Institute of Science Education and Research, India Aug 2012 - May 2017
Integrated B.Sc. - M.Sc. in Physics [view thesis]
Thesis: Transition to turbulence in subcritical baroclinic flows
Advisor: Dr. Antoine Venaille (École Normale Supérieure de Lyon)

WORK EXPERIENCE

Institute of Earth Sciences, Hebrew University of Jerusalem Oct 2020 - Jan 2021
Teaching Assistant
Course: Mathematical methods in scientific models [view notes]
Instructor: Prof. Nathan Paldor

École Normale Supérieure de Lyon May - Jul 2016
Summer Intern
Project Title: Transition to turbulence in subcritical baroclinic flows (continued as master's thesis)
Advisor: Dr. Antoine Venaille

Institute of Mathematical Sciences Jun - Jul 2015
Summer Research Fellow
Project Title: Binary logic using spatially patterned deaths in chemical oscillators [view report]
Advisor: Prof. Sitabhra Sinha

Indian Institute of Science Education and Research - Kolkata May - Jul 2014
Summer Intern
Project Title: Time series analysis of the bouncing ball experiment [view report]
Advisors: Prof. Prasanta K. Panigrahi and Prof. A.N. Sekar Iyengar

National Institute of Science Education and Research May - Jun 2013
Summer Intern
Project Title: Motion of the Foucault pendulum [view report]
Advisors: Dr. Joydeep Bhattacharjee

PUBLICATIONS

1. Campisi-Pinto, Salvatore, **Kaushal Gianchandani**, and Yosef Ashkenazy. "Statistical tests for the distribution of surface wind and current speeds across the globe." *Renewable Energy* 149 (2020): 861-876. [pdf]
2. **Gianchandani, Kaushal**, Hezi Gildor, and Nathan Paldor. "On the role of domain aspect ratio in the westward intensification of wind-driven surface ocean circulation." *Ocean Science* 17, no. 1 (2021): 351-363. [pdf]

SEMINARS

- Atmospheres and Oceans Seminar Jan 2021
Johns Hopkins University, Baltimore, MD, USA

CONFERENCES AND WORKSHOPS

○ GFD Days 2022 Ben-Guiron University of the Negev, Sede Boqer, Israel	Talk	Apr 2022
○ Ocean Sciences Meeting 2022 Session: AI05 Role of ocean-atmosphere dynamics in global climate, Online	Talk	Feb - Mar 2022
○ Next Generation Challenges in Energy-Climate Modeling Workshop University of Reading, Reading, UK, Online	Poster	Sep 2021
○ NASA PACE Applications Workshop National Aeronautics and Space Administration, Online		Sep 2021
○ Wave Dynamics and Climate Workshop Inter-University Institute for Marine Sciences, Eilat, Israel	Talk	Sep 2019
○ Israeli Association for Aquatic Sciences' 15th Annual Meeting Haifa, Israel	Talk	Mar 2019
○ EPScon 2019 Weizmann Institute of Science, Rehovot, Israel	Poster	Mar 2019
○ GFD Days 2019 Ben-Guiron University of the Negev, Sede Boqer, Israel	Poster	Jan 2019
○ Ice, Oceans and Atmospheres on Earth and Elsewhere CNR Headquarters, Rome, Italy		May 2018
○ 10th Conference on Nonlinear Systems and Dynamics Indian Institute of Science Education and Research - Kolkata, Kolkata, India	Poster	Dec 2016
○ Statphys26 Lyon, France		Jul 2016

SCHOOLS

○ International Spring School: Hydrothermal Vents European Astrobiology Network Association, Online		May 2021
○ Summer School on Fluid Dynamics of Sustainability and Environment University of Cambridge, Cambridge, UK		Sep 2018
○ 10th Winter School on Astroparticle Physics Bose Institute, Darjeeling, India		Dec 2015

SERVICES

○ Member, The Oceanography Society Student Committee Served on the Coding Resources Subcommittee	Sep 2021 - present
○ Co-chair, Session AI05 in Ocean Science Meeting 2022 Participant of the inaugural OSM Session Mentoring Program	Feb - Mar 2022

MENTORSHIP

○ Sagi Maor (B.Sc. student), Hebrew University of Jerusalem – Undergraduate research project in paleo-oceanography	Nov 2021 - present
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OUTREACH ACTIVITIES

- TOS Panel Discussion for World Oceans Day Jun 2022
Title: Using Ocean and Environmental Data to Address Socio - Economic Challenges
– Organized and moderated the panel discussion with 50+ attendees (students, researchers and industry professionals) from 5 countries
- Young Data Scientists Quest Jan - Apr 2022
– Mentored 30 students of Launch High School, Cedar City, UT for a 10 week data science bootcamp
– Designed two data science projects to complement the bootcamp
– Conducted multiple training sessions on data acquisition (source: Google Trends), data visualization and statistical analysis

AWARDS

- **Registration Grant**, Ocean Sciences Meeting 2022 Feb - Mar 2022
- **Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship** 2012 - 2017
Sponsor: Department of Science & Technology, Government of India
Awarded to the top 1% of students in India pursuing an undergraduate degree in basic sciences
- **Physics Summer Research Fellowship** Jun - Jul 2015
Sponsor: Institute of Mathematical Sciences, Chennai
Awarded to 15 students selected from applicants across India to pursue an internship in Physics at the institute

MEMBERSHIPS

- The Oceanography Society Apr 2019 - present
- Israeli Association for Aquatic Sciences Mar 2019 - present
- The New York Academy of Science Oct 2020 - Oct 2021

TECHNICAL STRENGTHS

Computer Languages : Python, Fortran, Bash, HTML
Packages : MITgcm, (py)ferret, L^AT_EX
Software : MATLAB, Mathematica
Operating systems : Ubuntu (other linux based OSs), macOS (unix), Microsoft Windows

REFERENCES

Hezi Gildor

Professor
Fredy and Nadine Herrmann Institute of Earth Sciences
Hebrew University of Jerusalem, Israel
hezi.gildor@mail.huji.ac.il

Yosef Ashkenazy

Edward and Bertha Rose
Professor of Environmental Physics
Department of Solar Energy and Environmental Physics
Jacob Blaustein Institutes for Desert Research
Ben-Gurion University of the Negev, Israel
ashkena@bgu.ac.il

Itay Halevy

Professor
Department of Earth and Planetary Sciences
Weizmann Institute of Science, Israel
itay.halevy@weizmann.ac.il

Eli Tziperman

Pamela and Vasco McCoy, Jr.
Professor of Oceanography and Applied Physics
Department of Earth and Planetary Sciences and School
of Engineering and Applied Sciences
Harvard University, USA
eli@seas.harvard.edu