

KAUSHAL GIANCHANDANI

Affiliation : Fredy and Nadine Hermann Institute of Earth Sciences, Hebrew University of Jerusalem,
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RESEARCH INTEREST

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

EDUCATION

Hebrew University of Jerusalem, Israel (HUJI) Oct 2017 - present
Ph.D. in Oceanography
Thesis: The physical-biogeochemical dynamics of snowball Earth conditions: hard vs soft snowball states
Advisors: Prof. Hezi Gildor, Prof. Yosef Ashkenazy and Prof. Eli Tziperman

National Institute of Science Education and Research (NISER), India Aug 2012 - May 2017
Integrated B.Sc. - M.Sc. in Physics
Thesis: Transition to turbulence in subcritical baroclinic flows
Advisor: Dr. Antoine Venaille

SCHOOLS

International Spring School: Hydrothermal Vents May 2021
European Astrobiology Network Association (EANA), Online

Summer School on Fluid Dynamics of Sustainability & Environment (FDSE) Sep 2018
University of Cambridge, Cambridge, UK

10th Winter School on Astroparticle Physics (WAPP) Dec 2015
Bose Institute, Darjeeling, India

WORK EXPERIENCE

Institute of Earth Sciences, HUJI Oct 2017 - present
Graduate Research Assistant
Jerusalem, Israel

Institute of Earth Sciences, HUJI Oct 2020 - Jan 2021
Teaching Assistant
Jerusalem, Israel
Course: Mathematical methods in scientific models
Instructor: Prof. Nathan Paldor

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

Institute of Mathematical Sciences (IMSc) Jun - Jul 2015
Summer Research Fellow
Chennai, India
Project Title: Binary logic using spatially patterned deaths in chemical oscillators
Advisor: Prof. Sitabhra Sinha

Indian Institute of Science Education and Research (IISER) Kolkata May - Jul 2014
Summer Intern
Kolkata, India
Project Title: Time series analysis of the bouncing ball experiment
Advisors: Prof. Prasanta K. Panigrahi and Prof. A.N. Sekar Iyengar

NISER May - Jun 2013
Summer Intern
Bhubaneswar, India
Project Title: Motion of the Foucault pendulum
Advisors: Dr. Joydeep Bhattacharjee

PUBLICATIONS

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.
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.

INVITED TALKS

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

CONFERENCES AND WORKSHOPS

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|---|--------|----------------|
| Ocean Sciences Meeting (OSM) 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-Gurion 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 IISER Kolkata, Kolkata, India | Poster | Dec 2016 |
| Statphys26 Lyon, France | | Jul 2016 |

SERVICES

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| Mentor , Young Data Scientists League (YDSL) Mentor to 15 high school students of Launch High School, Cedar City, UT, USA | Jan 2022 - present |
| Member , The Oceanography Society (TOS) Student Committee Served on the Coding Resources Subcommittee | Sep 2021 - present |
| Co-chair , Session AI05 in OSM 2022 Participant of the inaugural OSM Session Mentoring Program (OSMP) | Feb - Mar 2022 |

AWARDS

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| Registration Grant, OSM 2022 Sponsor: AGU, ASLO and TOS | Feb - Mar 2022 |
| Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship Sponsor: Department of Science & Technology (DST), Government of India <i>Awarded to the top 1% of students in India pursuing an undergraduate degree in basic sciences</i> | 2012 - 2017 |
| Physics Summer Research Fellowship Sponsor: IMSc, Chennai <i>Awarded to 15 students selected from applicants across India to pursue an internship in Physics at IMSc</i> | Jun - Jul 2015 |

MEMBERSHIPS

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| 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

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