

KAUSHAL GIANCHANDANI

Curriculum Vitae

Fredy and Nadine Hermann Institute of Earth Sciences
Hebrew University of Jerusalem
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<https://kaushalgianchandani.github.io/>

EDUCATION

Ph.D. in Oceanography Oct 2017 – present
Hebrew University of Jerusalem, Israel (HUJI)
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

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

RESEARCH INTERESTS

(Physical & Paleo-) Oceanography, Climate dynamics, Nonlinear dynamics, Statistical analysis

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.

HONORS AND AWARDS

Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship Aug 2012 – May 2017
Sponsor: Department of Science & Technology (DST), Govt. of India

Physics Summer Research Fellowship Jun – Jul 2015
Sponsor: Institute of Mathematical Sciences (IMSc), Chennai

Best Student award, St. Gregorios Senior Secondary School, Udaipur 2012

EMPLOYMENT HISTORY

Graduate Research Assistant Oct 2017 – present
Institute of Earth Sciences, Hebrew University of Jerusalem, Israel
Project title: The physical-biogeochemical dynamics of snowball Earth conditions
Advisors: Prof. Hezi Gildor, Prof. Yosef Ashkenazy and Prof. Eli Tziperman

Project title: Models of surface ocean circulation
Advisors: Prof. Nahtan Paldor and Prof. Hezi Gildor

Project title: Statistical analysis of global distribution of surface winds and ocean currents
Advisor: Prof. Yosef Ashkenazy

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| Teaching Assistant Institute of Earth Sciences, Hebrew University of Jerusalem, Israel <i>Course: Mathematical Methods in Scientific Models</i> Instructor: Prof. Nathan Paldor | Oct 2020 – Jan 2021 |
| Summer Intern École Normale Supérieure de Lyon (ENS de Lyon) <i>Project Title: Transition to turbulence in subcritical baroclinic flows</i> Advisor: Dr. Antoine Venaille | May – Jul 2016 (cont. as master's thesis) |
| Summer Research Fellow Institute of Mathematical Sciences (IMSc), Chennai <i>Project Title: Binary logic using spatially patterned deaths in chemical oscillators</i> Advisor: Prof. Sitabhra Sinha | Jun – Jul 2015 |
| Summer Intern Indian Institute of Science Education and Research – Kolkata <i>Project Title: Time series analysis of bouncing ball experiment using Wavelet Transformation and Empirical Mode Decomposition</i> Advisor: Prof. Prasanta K. Panigrahi and Prof. A.N. Sekar Iyengar | May – Jun 2014 |

INVITED TALKS

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| Atmospheres and Oceans seminar Johns Hopkins University, Baltimore, MD, USA. | Jan 2021, Baltimore, US |
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CONFERENCES, SCHOOLS and WORKSHOPS

Conferences:

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| Wave Dynamics and Climate workshop Inter-University Institute for Marine Sciences, Eilat, IL | Talk | Sep 2019 |
| The Israeli Association for Aquatic Sciences' 15th Annual Meeting Haifa, IL | Talk | Mar 2019 |
| EPScon 2019 Weizmann Institute of Science, Rehovot, IL | Poster | Mar 2019 |
| GFD Days 2019 Ben-Gurion University of the Negev, Sede Boqer, IL | Poster | Jan 2019 |
| Ice, Oceans and Atmospheres on Earth and Elsewhere CNR Headquarters, Rome, IT | | May 2018 |
| 10th Conference on Nonlinear Systems and Dynamics Indian Institute of Science Education and Research - Kolkata, Kolkata, IN | Poster | Dec 2016 |
| Statphys26 Lyon, FR | | Jul 2016 |

Schools:

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| Summer School on Fluid Dynamics of Sustainability & the Environment (FDSE) University of Cambridge, Cambridge, UK | Poster | Sep 2018 |
| 10th Winter School on Astroparticle Physics Bose Institute, Darjeeling, IN | | Dec 2015 |

PROFESSIONAL MEMBERSHIPS

The New York Academy of Science

The Oceanography Society

Israeli Association for Aquatic Sciences

Oct 2020 – Oct 2021

Apr 2019 – present

Mar 2019 – present

COMPUTER SKILLS

Languages: Python, C++, HTML, Bash, Fortran

Packages: MITgcm, (py)ferret, pyqg, Latex, gnuplot

Software: MATLAB, Mathematica

Operating systems: Ubuntu (other linux based OSs), macOS (unix), Microsoft Windows.