

KAUSHAL GIANCHANDANI

Curriculum Vitae

Fredy and Nadine Hermann Institute of Earth Sciences
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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 & Data Analysis), Nonlinear Dynamics.

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.

WORK EXPERIENCE

Graduate Research Assistant

Oct 2017 – present

Institute of Earth Sciences, Hebrew University of Jerusalem, Israel

Teaching Assistant

Oct 2020 – Jan 2021

Institute of Earth Sciences, Hebrew University of Jerusalem, Israel

Course: [Mathematical Methods in Scientific Models](#)

Instructor: Prof. Nathan Paldor

Summer Intern

May – Jul 2016

École Normale Supérieure de Lyon (ENS de Lyon)

Project Title: Transition to turbulence in subcritical baroclinic flows

(continued as master's thesis)

Advisor: Dr. Antoine Venaille

Summer Research Fellow

Jun – Jul 2015

Institute of Mathematical Sciences (IMSc), Chennai

Project Title: Binary logic using spatially patterned deaths in chemical oscillators

Advisor: Prof. Sitabhra Sinha

Summer Intern

May – Jun 2014

Indian Institute of Science Education and Research (IISER) – Kolkata

Project Title: Time series analysis of bouncing ball experiment using Wavelet Transformation and EMD

Advisor: Prof. Prasanta K. Panigrahi and Prof. A.N. Sekar Iyengar

INVITED TALKS

Atmospheres and Oceans seminar

Jan 2021

Johns Hopkins University, Baltimore, MD, USA.

CONFERENCES, SCHOOLS and WORKSHOPS

Conferences and Workshops:

Ocean Sciences Meeting (OSM) 2022 Session: AI05 The role of ocean-atmosphere dynamics in global climate, Online	Talk	Feb - Mar 2022
Next Generation Challenges in Energy-Climate Modelling Workshop 2021 University of Reading, Reading, UK, Online	Poster	Sep 2021
NASA PACE Applications Workshop 2021 National Aeronautics and Space Administration, Virtual event		Sep 2021
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:

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

SERVICES

Co-chair , Session AI05 at Ocean Science Meeting 2022 Participant of the inaugural OSM Session Mentoring Program (OSMP)		Feb - Mar 2022
Mentor , Young Data Scientists League (YDSL)		Jan - Apr 2022
Member , The Oceanography Society (TOS) Student Committee Served on the Coding Resources Subcommittee		Sep 2021 - present

AWARDS

Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship Sponsor: Department of Science & Technology (DST), Govt. of India		Aug 2012 - May 2017
Physics Summer Research Fellowship Sponsor: Institute of Mathematical Sciences (IMSc), Chennai		Jun - Jul 2015
Best Student award , St. Gregorios Senior Secondary School, Udaipur		2012

MEMBERSHIPS

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

TECHNICAL DEXTERITY

Languages:	Python, Fortran, Bash, HTML, C++
Packages:	MITgcm, (py)ferret, Latex, gnuplot

Software: MATLAB, Mathematica
Operating systems: Ubuntu (other linux based OSs), macOS (unix), Microsoft Windows