

KAUSHAL GIANCHANDANI

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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

GFD Days 2022 Ben-Gurion University of the Negev, Sede Boqer, Israel	Talk	Apr 2022
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

Member, The Oceanography Society (TOS) Student Committee Sep 2021 - present
Served on the Coding Resources Subcommittee

Co-chair, Session AI05 in OSM 2022 Feb - Mar 2022
Participant of the inaugural OSM Session Mentoring Program (OSMP)

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 (YDSQ) 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, OSM 2022

Feb - Mar 2022

Sponsor: AGU, ASLO and TOS

Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship

2012 - 2017

Sponsor: Department of Science & Technology (DST), 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: IMSc, Chennai

Awarded to 15 students selected from applicants across India to pursue an internship in Physics at IMSc

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 , gnuplot

Software : MATLAB, Mathematica

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