

# 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](mailto:kaushal.g@mail.huji.ac.il)  
**Web** : <https://kaushalgianchandani.github.io/>

## RESEARCH INTEREST

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

## EDUCATION

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**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

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**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

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**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

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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

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

## CONFERENCES AND WORKSHOPS

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

## SERVICES

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

## AWARDS

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<b>Registration Grant, OSM 2022</b> Sponsor: AGU, ASLO and TOS	Feb - Mar 2022
<b>Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship</b> Sponsor: Department of Science & Technology (DST), Government of India <i>Awarded to the top the 1% of students in India pursuing an undergraduate degree in basic sciences</i>	2012 - 2017
<b>Physics Summer Research Fellowship</b> 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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<b>The Oceanography Society</b>	Apr 2019 - present
<b>Israeli Association for Aquatic Sciences</b>	Mar 2019 - present
<b>The New York Academy of Science</b>	Oct 2020 - Oct 2021

## TECHNICAL STRENGTHS

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<b>Computer Languages</b>	: Python, Fortran, Bash, HTML
<b>Packages</b>	: MITgcm, (py)ferret, L <sup>A</sup> T <sub>E</sub> X , gnuplot
<b>Software</b>	: MATLAB, Mathematica
<b>Operating systems</b>	: Ubuntu (other linux based OSs), macOS (unix), Microsoft Windows