

# KAUSHAL GIANCHANDANI

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## 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**  
Johns Hopkins University, Baltimore, MD, USA

Jan 2021

## CONFERENCES AND WORKSHOPS

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

**Ocean Sciences Meeting (OSM) 2022** Talk Feb - Mar 2022  
Session: AI05 Role of ocean-atmosphere dynamics in global climate, Online

**Next Generation Challenges in Energy-Climate Modeling Workshop** Poster Sep 2021  
University of Reading, Reading, UK, Online

**NASA PACE Applications Workshop** Sep 2021  
National Aeronautics and Space Administration, Online

**Wave Dynamics and Climate Workshop** Talk Sep 2019  
Inter-University Institute for Marine Sciences, Eilat, Israel

**Israeli Association for Aquatic Sciences' 15th Annual Meeting** Talk Mar 2019  
Haifa, Israel

**EPScon 2019** Poster Mar 2019  
Weizmann Institute of Science, Rehovot, Israel

**GFD Days 2019** Poster Jan 2019  
Ben-Gurion University of the Negev, Sede Boqer, Israel

**Ice, Oceans and Atmospheres on Earth and Elsewhere** May 2018  
CNR Headquarters, Rome, Italy

**10th Conference on Nonlinear Systems and Dynamics** Poster Dec 2016  
IISER Kolkata, Kolkata, India

**Statphys26** Jul 2016  
Lyon, France

## SERVICES

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**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

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**Young Data Scientists League (YDSL)** Jan - Apr 2021  
– 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

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**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 &amp; 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**

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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<sup>A</sup>T<sub>E</sub>X , gnuplot**Software** : MATLAB, Mathematica**Operating systems** : Ubuntu (other linux based OSs), macOS (unix), Microsoft Windows