

# KAUSHAL GIANCHANDANI

## Curriculum Vitae

Fredy and Nadine Hermann Institute of Earth Sciences  
Hebrew University of Jerusalem  
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## RESEARCH INTERESTS

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

## 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

## 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

## 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, SCHOOLS and WORKSHOPS

Conferences and Workshops:

<b>Ocean Sciences Meeting (OSM) 2022</b> Session: AI05 The role of ocean-atmosphere dynamics in global climate, Online	Talk	Feb - Mar 2022
<b>Next Generation Challenges in Energy-Climate Modelling Workshop 2021</b> University of Reading, Reading, UK, Online	Poster	Sep 2021
<b>NASA PACE Applications Workshop 2021</b> National Aeronautics and Space Administration, Online		Sep 2021
<b>Wave Dynamics and Climate Workshop</b> Inter-University Institute for Marine Sciences, Eilat, IL	Talk	Sep 2019
<b>The Israeli Association for Aquatic Sciences' 15th Annual Meeting</b> Haifa, IL	Talk	Mar 2019
<b>EPScon 2019</b> Weizmann Institute of Science, Rehovot, IL	Poster	Mar 2019
<b>GFD Days 2019</b> Ben-Gurion University of the Negev, Sede Boqer, IL	Poster	Jan 2019
<b>Ice, Oceans and Atmospheres on Earth and Elsewhere</b> CNR Headquarters, Rome, IT		May 2018
<b>10th Conference on Nonlinear Systems and Dynamics</b> Indian Institute of Science Education and Research - Kolkata, Kolkata, IN	Poster	Dec 2016
<b>Statphys26</b> Lyon, FR		Jul 2016
Schools:		
<b>International Spring School: Hydrothermal Vents</b> European Astrobiology Network Association, Online		May 2021
<b>Summer School on Fluid Dynamics of Sustainability &amp; the Environment (FDSE)</b> University of Cambridge, Cambridge, UK	Poster	Sep 2018
<b>10th Winter School on Astroparticle Physics</b> Bose Institute, Darjeeling, IN		Dec 2015
SERVICES		
<b>Co-chair</b> , Session AI05 at Ocean Science Meeting 2022 Participant of the inaugural OSM Session Mentoring Program (OSMP)		Feb - Mar 2022
<b>Mentor</b> , Young Data Scientists League (YDSL) Mentor to 15 middle school and high school students for a project in Data Science.		Jan - Apr 2022
<b>Member</b> , The Oceanography Society (TOS) Student Committee Served on the Coding Resources Subcommittee		Sep 2021 - present
AWARDS		
<b>Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship</b> Sponsor: Department of Science & Technology (DST), Govt. of India		Aug 2012 - May 2017
<b>Physics Summer Research Fellowship</b> Sponsor: Institute of Mathematical Sciences (IMSc), Chennai		Jun - Jul 2015
<b>Best Student award</b> , 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