

KAUSHAL GIANCHANDANI

Curriculum Vitae

Fredy and Nadine Hermann Institute of Earth Sciences
Hebrew University of Jerusalem
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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, Nonlinear dynamics, Statistical analysis

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 (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.

HONORS AND AWARDS

Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship Aug 2012 – May 2017
Sponsor: Department of Science & Technology (DST), Govt. of India

Physics Summer Research Fellowship Jun – Jul 2015
Sponsor: Institute of Mathematical Sciences (IMSc), Chennai

Best Student award, St. Gregorios Senior Secondary School, Udaipur 2012

EMPLOYMENT HISTORY

Graduate Research Assistant Oct 2017 – present
Institute of Earth Sciences, Hebrew University of Jerusalem, Israel
Project title: The physical-biogeochemical dynamics of snowball Earth conditions
Advisors: Prof. Hezi Gildor, Prof. Yosef Ashkenazy and Prof. Eli Tziperman

Project title: Models of surface ocean circulation
Advisors: Prof. Nahtan Paldor and Prof. Hezi Gildor

Project title: Statistical analysis of global distribution of surface winds and ocean currents
Advisor: Prof. Yosef Ashkenazy

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*

(cont. 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 – Kolkata

Project Title: *Time series analysis of bouncing ball experiment using Wavelet Transformation and Empirical Mode Decomposition*

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

INVITED TALKS**Atmospheres and Oceans seminar**

Jan 2021, Baltimore, US

Johns Hopkins University, Baltimore, MD, USA.

CONFERENCES, SCHOOLS and WORKSHOPS

Conferences:

Wave Dynamics and Climate workshop

Talk Sep 2019

Inter-University Institute for Marine Sciences, Eilat, IL

The Israeli Association for Aquatic Sciences' 15th Annual Meeting

Talk Mar 2019

Haifa, IL

EPScon 2019

Poster Mar 2019

Weizmann Institute of Science, Rehovot, IL

GFD Days 2019

Poster Jan 2019

Ben-Gurion University of the Negev, Sede Boqer, IL

Ice, Oceans and Atmospheres on Earth and Elsewhere

May 2018

CNR Headquarters, Rome, IT

10th Conference on Nonlinear Systems and Dynamics

Poster Dec 2016

Indian Institute of Science Education and Research - Kolkata, Kolkata, IN

Statphys26

Jul 2016

Lyon, FR

Schools:

Summer School on Fluid Dynamics of Sustainability & the Environment (FDSE)

Poster Sep 2018

University of Cambridge, Cambridge, UK

10th Winter School on Astroparticle Physics

Dec 2015

Bose Institute, Darjeeling, IN

PROFESSIONAL MEMBERSHIPS

The New York Academy of Science

The Oceanography Society

Israeli Association for Aquatic Sciences

Oct 2020 – Oct 2021

Apr 2019 – present

Mar 2019 – present

COMPUTER SKILLS

Languages: Python, C++, HTML, Bash, Fortran

Packages: MITgcm, (py)ferret, pyqg, Latex, gnuplot

Software: MATLAB, Mathematica

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