# **KAUSHAL GIANCHANDANI**

# Curriculum Vitae

Fredy and Nadine Hermann Institute of Earth Sciences Hebrew University of Jerusalem Edmond J Safra Campus Givat Ram, Jerusalem, Israel - 9190401 kaushal.g@mail.huji.ac.il +1 (443) 627-1013

https://kaushalgianchandani.github.io/

### **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, 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.

### **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

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-Guiron University of the Negev, Sede Boger, IL

Ice, Oceans and Atmospheres on Earth and Elsewhere May 2018

CNR Headquaters, 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.