

Giuseppe Torri, Ph.D.

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EDUCATION

- 2012 Ph.D.**, Theoretical Physics, Imperial College London
Thesis: “Counting gauge invariant operators in supersymmetric theories using Hilbert series”
Advisor: Prof. Amihay Hanany
- 2007 M.Sc.**, Theoretical Physics, Università degli Studi di Milano – Bicocca
Thesis: “Partition functions for the chiral ring of supersymmetric gauge theories”
Advisor: Prof. Alberto Zaffaroni
Final grade: 110/110 magna cum laude
- 2005 B.Sc.**, Physics, Università degli Studi di Milano – Bicocca
Final dissertation: “Representations of SU(3) and the quark model”
Advisor: Prof. Alberto Zaffaroni
Final grade: 110/110 magna cum laude

POSITIONS

- 2018-current** Assistant Professor, Dept. Atmospheric Sciences, U. of Hawai‘i at Mānoa
- 2015-2018** Research Associate, Earth & Planetary Sciences, Harvard University
- 2012-2015** Post-Doctoral Fellow, Earth & Planetary Sciences, Harvard University

REFEREED SCHOLARSHIP

- Torri, G. – Isotopic equilibration in convective downdrafts, *in review*
- Torri, G., A.D. Nugent, B.N. Popp – The isotopic composition of rainfall on a subtropical mountainous island, *in review*
- Sakaeda, N., G. Torri (2022) – The behaviors of intraseasonal cloud organization during DYNAMO/AMIE, *J. Geoph. Res. Atmos.*, 127, e2021JD035749.
- Stuecker, M., C. Karamperidou, A.D. Nugent, G. Torri, S. Coats, S. Businger (2021) – Comments on “The financial dilemma of students pursuing an atmospheric science graduate degree in the United States”, *Bull. Amer. Met. Soc.*, **102**, 323-324.
- Torri, G. (2021) – On the isotopic composition of cold pools in radiative-convective equilibrium, *J. Geophys. Res. Atmos.* **126**.

- Tachera, D., N. Lautze, G. Torri, D. Thomas (2021) – Characterization of the isotopic composition and bulk ion deposition of precipitation from Central to West Hawai‘i Island between 2017 and 2019, *J. Hydro: Regional Studies*, **34**, 100786
- Dores, D., E., C. R. Glenn, G. Torri, R. B. Whittier, B. N. Popp (2020) – Stable isotopic composition of precipitation on Oahu, Hawaii, during the 2017-2018 La Niña and implications for groundwater recharge. *Hydrological Processes*. **34:34**: 4676-4696.
- Torri, G., D. K. Adams, H. Wuang, Z. Kuang (2019) – On the diurnal cycle of GPS-derived column water vapor over Sumatra, *Journal of the Atmospheric Sciences*, **76(11)**, <https://doi.org/10.1175/JAS-D-19-0094.1>.
- Torri, G. and Z. Kuang (2019) – On cold pool collisions in tropical boundary layers, *Geophysical Research Letters*, **46**, doi: 10.1029/2018GL080501
- Zuidema, P., G. Torri, C. Muller, A. Chandra (2017) – A survey of precipitation-induced atmospheric cold pools over oceans and their interactions with the larger-scale environment, *Surveys in Geophysics*, **38(6)**, 1283-1305.
- Torri, G., D. Ma, and Z. Kuang (2017) – Stable water isotopes and large-scale vertical motions in the tropics, *J. Geophys. Res. Atmos.*, **122**, 3703-3717.
- Torri, G. and Z. Kuang (2016) – Rain evaporation and moist patches in tropical boundary layers, *Geoph. Res. Let.*, **43(18)**.
- Torri, G. and Z. Kuang (2016) – A Lagrangian study of precipitation-driven downdrafts, *J. Atmos. Sci.*, **73**, 839-854.
- Gentine, P., A. Girelli, S. Park, J. Nie, G. Torri and Z. Kuang (2016) – Role of surface heat fluxes underneath cold pools, *Geoph. Res. Let.*, **43**, 874-883.
- Torri, G., Z. Kuang and Y. Tian (2015) – Mechanisms for convection triggering by cold pools, *Geoph. Res. Let.*, **42(6)**, 1943-1950.

Theoretical Physics (authors in alphabetical order)

- J. Davey, A. Hanany, N. Mekareeya, G. Torri (2011) – M2-branes and Fano 3-folds, *J. Phys. A*, **44**, 40.
- A. Hanany, G. Torri – Brane tilings and supersymmetric gauge theories (2011), *Nucl. Phys. Proc. Suppl.*, **216**, 1, 270-272.
- A. Hanany, E. E. Jenkins, A. V. Manohar, G. Torri (2011) – Hilbert series for flavor invariants of the Standard Model, *J. High En. Phys.*, **2011**, 3, 96.
- J. Davey, A. Hanany, N. Mekareeya, G. Torri (2010) – Brane tilings, M2-branes and Chern-Simons theories, *Acta Phys. Pol. B Proc. Suppl.*, **2**, 3, 639-655.
- I. R. Klebanov, G. Torri (2010) – M2-branes and AdS/CFT, *Int. J. Mod. Phys. A*, **25**, 2-3, 332-350.
- J. Davey, A. Hanany, N. Mekareeya, G. Torri (2009) – Higgsing M2-branes, *J. High En. Phys.*, **2009**, 11, 28.
- J. Davey, A. Hanany, N. Mekareeya, G. Torri (2009) – Phases of M2-branes, *J. High En. Phys.*, **2009**, 6, 25.

A. Hanany, N. Mekareeya, G. Torri (2008) – The Hilbert series of Adjoint SQCD, *Nucl. Phys. B*, **825**, 1-2, 52-97.

TEACHING EXPERIENCE

2022, S	ATMO 305	Meteorological Instruments and Observations
2021, F	ATMO 620	Physical Meteorology
2021, S	ATMO 606	Cumulus Dynamics
2020, F	ATMO 620	Physical Meteorology
2020, S	ATMO 765	Seminars in Meteorology
2020, S	ATMO 412	Meteorological Analysis and Forecasting
2019, F	ATMO 620	Physical Meteorology
2019, S	ATMO 416	Tropical Analysis and Forecasting (w/ Steven Businger)
2018, F	ATMO 620	Physical Meteorology (w/ Yuqing Wang)

GRANTS AND CONTRACTS

Assessment of Cloud Development and Organization Processes within the Madden Julian Oscillation using ARM Observations and Lagrangian Modeling, DOE, co-I, \$576,876, 10/01/19–09/30/22

A Lagrangian investigation of stable water vapor isotopes in deep convective systems, NSF, PI, \$299,971, 07/01/20—06/30/23

A new approach to studying supercell storms: the use of water isotopes, Merage Foundation, PI, \$202,667, 15/01/22—14/01/24

RII Track-1: Change Hawaii; Harnessing the Data Revolution for Island Resilience, NSF, \$20,000,000, *pending*.

CC* Compute: Koa-A High Performance and Flexible Research Computing Resource, NSF, co-I, \$400,000, *pending*.

Understanding diurnal, rainfall processes over tropical islands to improve subseasonal-to-seasonal forecasts, NOAA, co-I, \$828,199, *pending*.

INVITED PRESENTATIONS

2020	Durham University, Durham, UK
2019	Università degli Studi di Milano – Bicocca, Milan, Italy
2018	Woods Hole Oceanographic Institute, Woods Hole, USA
2018	Colorado State University, Fort Collins, USA
2017	Ludwig-Maximilian Universität, Munich, Germany
2016	University of Washington, Seattle, USA
2016	Max-Planck-Institut für Meteorologie, Hamburg, Germany
2014	Massachusetts Institute of Technology, Cambridge, USA

AWARDS & SCHOLARSHIPS

- 2021** Board of Regents Excellence in Teaching award (nominated)
- 2021** Innovation2Impact Initiative Award
- 2021** Second place for the University of Hawai‘i Venture Competition
- 2021** Winner of the Pacific Asian Center for Entrepreneurship Innovation Challenge
- 2020** Winner of the University of Hawai‘i Innovation Impact Challenge
- 2015** The Foundation Blanceflor Boncompagni Ludovisi, née Bildt Scholarship
- 2012-14** Harvard University Center for the Environment – Ziff Environmental Fellowship
- 2011-12** Fondazione Angelo dalla Riccia Scholarship
- 2005/07** Università degli Studi di Milano Bicocca Distinction Award

SERVICE

- 2019-current** Member of the University of Hawai‘i at Mānoa School of Ocean and Earth Science and Technology Faculty Senate
- 2019-current** Member of the Department of Atmospheric Sciences Curriculum Committee
- 2018-current** Member of the Information Technology Services Cyberinfrastructure Faculty Advisory Committee
- 2018-2021** Organizer and chair of session “Atmospheric Convection: Processes, Dynamics, and Links to Weather and Climate” at AGU Fall Meeting
- 2017** Organized and chaired session “Land-Atmosphere Interactions, Biosphere-Boundary Layer Feedbacks, and Moist Convection” at AGU Fall Meeting
- 2015** Chaired session “Other Mesoscale Processes” at 16th Conference on Mesoscale Processes, Boston
- 2012-current** Reviewer for Geophysical Research Letter, Journal of the Atmospheric Sciences, Journal of Geophysical Research, Journal of Climate, Nature, and various proposals for National Science Foundation, the National Oceanic and Atmospheric Administration, and the Department of Energy.

PROFESSIONAL MEMBERSHIP AND OTHER

Member of American Geophysical Union, American Meteorological Society, Associazione Italiana di Scienze dell’Atmosfera e Meteorologia, Società Italiana di Meteorologia.

Co-founder of Nimbus AI, a start-up company that uses artificial intelligence to provide high-resolution solar irradiance forecasts in environments with complex topography, such as the Hawaiian Islands.