CURRICULUM VITAE: *Chidong Zhang*

NOAA Pacific Marine Environment Laboratory
7600 Sand Point Way, NE. Seattle, WA 98115
(206) 526-4146 chidong.zhang@noaa.gov

EDUCATION:

1989	Ph.D.	Meteorology, The Pennsylvania State University
1985	M.S.	Meteorology, University of Utah
1982	B.S.	Meteorology, Peking University

PROFESSIONAL OCCUPATION:

2022	Acting Lead of Engineering Development Division	NOAA Pacific Marine Environmental Laboratory
2022	Acting Deputy Director	NOAA Pacific Marine Environmental Laboratory
2016 -	Supervisory Oceanographer and Lead of Ocean Climate Research Division	NOAA Pacific Marine Environmental Laboratory
2016 -	Affiliate Professor	University of Washington
2004-2017	Professor	University of Miami
2000-2004	Associate Professor	University of Miami
1997-2000	Research Associate Professor	University of Miami
1992-1996	Research Assistant Professor	University of Washington
1991-1992	Postdoctoral Visitor	University of Washington
1989-1991	Research Associate	The Pennsylvania State University

AWARD AND HONOR:

2021 Fellow, 125th Anniversary of the College of Earth and Mineral Sciences at Penn State
2020 Fellow, American Geophysical Union
2019 Silver Sherman Award, NOAA
2018 Scientific and Technological Activities Commission Award, American Meteorological Society
2016 Editor's Citation for Excellence in Refereeing, Review of Geophysics
2014 Fellow, American Meteorological Society
2001 Graduate Student Appreciation Award, University of Miami
1999 Editor's Citation for Excellence in Refereeing, Journal of Geophysical Research-Oceans
1991 NOAA Global and Climate Change Postdoctoral Fellowship

PROFESSIONAL ASSOCIATION:

1994 - Member, American Geophysical Union
1989 - Member, American Meteorological Society

FIELD PROGRAM EXPERIENCE:

Chief Scientist, YMC Banda Sea Cruise, February – March 2023
Co-Lead, NOAA Saildrone Hurricane Observations Mission, August – October, 2021, Eastern Tropical Atlantic Ocean
Lead, NOAA Saildrone Arctic Observations Mission, June – September, 2019, Bering, Chukchi and Beaufort Seas
Chief Scientist, Dynamics of the Madden-Julian Oscillation (DYNAMO), October 2011 – March 2012, Indian Ocean
Guest Participant, Saharan Air Layer Experiment (SALEX), September 2006, Barbados

PI, Eastern Pacific Investigation on Climate (EPIC2001), September 2001, Huatulco, Mexico
Postdoctoral Participant, Tropical Ocean Global Atmosphere (TOGA) Couple Ocean Atmosphere Response Experiment (COARE), December 1992 - February 1993, Honiara, Solomon Islands.

PROFESSIONAL SERVICE

Scientific Organizing Committee of NCAR ASP Summer Colloquium (2021) and Workshop on Subseasonal to Seasonal (S2S) Science and Prediction (2022)
AMS Fellow Committee, 2021-2023
Executive Committee of the US CLIVAR Science Steering Committee, 2020-2022.
Chair, Science Steering Committee of the US CLIVAR Science Steering Committee, 2022.
AMS Nomination Committee, 2020-2022
~~Program Committee of the 15th Pan Ocean Remote Sensing Conference (PORSE2020)~~
Organizing Committee for 2020 NCAR Summer Colloquium on Subseasonal-to-Seasonal Science, 2021
Organizing Committee of the Second International Conference on Tropical Meteorology and Atmospheric Science (ICTMAS), Jakarta, Indonesia, August 2021
Editor, Scientific Online Letters on the Atmosphere (SOLA), 2019 - 2022
Organization Committee for the NOAA Climate Program Office (CPO) Earth System Science and Modeling (ESSM) Division Strategic Planning Workshop, November 2018
Organization Committee for the US Clivar Workshop on Tropical Convection and Air-Sea Interaction, 2018-2019
US TPOS Executive Committee, 2018
Co-Chair, Organizing Committee of AMS Peter Webster Symposium, January 9, 2018
Chair, AMS Award Nomination Committee, 2017
Co-Chair, Science Steering Committee of Years of the Maritime Continent (YMC), 2015 -
Organizing Committee of Workshop on Intraseasonal Processes and Prediction in the Maritime Continent, Singapore, 11-13 April 2016
US Steering Committee of International Indian Ocean Expedition 2 (IIOP-2), 2015-2020
Tropical Pacific Observing System (TPOS) Planetary Boundary Layer Task Team, 2015 - 2019
SPURS-2 Steering Committee, 2015 - 2018
Organizing Committee of the 2nd International Workshop on Years of the Maritime Continent, BMKG, Jakarta, November 24-26, 2015.
AMS Awards Nomination Committee, 2015-2020.
Editorial Advisory Board of Mathematics of Climate and Weather Forecasting, 2015 – 2020
Review Panel for NOAA Earth System Laboratory, Physical Science Division, May 12-14, 2015
Guest Editor, Journal of the Meteorological Society of Japan, 2015 -
Organizing Committee of BIRS workshop on Stochasticity and Organization of Tropical Convection, the Banff Centre, Banff, Alberta, Canada, April 27 - May 1, 2015
Chair, Organizing Committee of the 1st International Workshop on Years of the Maritime Continent, Center for Climate Research Singapore, January 27-30, 2015.
National Academy of Sciences Committee on Developing a U.S. Research Agenda to Advance Subseasonal to Seasonal Forecasting, 2014-2016.
Editor, Journal of Geophysical Research – Atmosphere, 2013 – 2021.
Co-Chair, Symposium on Prediction of the Madden-Julian Oscillation, AMS Annual Meeting, Austin, TX, January 10, 2013.
Council of the American Meteorological Society, 2012 – 2015
Organizing Committee of AMS Michio Yanai Symposium, January 27, 2011
Organizing Committee of 2011 NCAR ASP Summer Colloquium on African Weather and Climate, July 25 – August 5, 2011
ARM MJO Investigation Experiment (AMIE) Science Steering Committee, 2010 - 2013
Chair, Dynamics of the MJO (DYNAMO) Science Steering Committee, 2010 – 2013

Cooperative Indian Ocean Experiment on Intraseasonal Variability in the Year 2011 (CINDY2011) International Science Steering Committee, 2010 – 2013
WWRP/WCRP YOTC MJO Task Force, 2010 – 2012
Review Panel of National Research Council, 2009 - 2011
US CLIVAR MJO Working Group, 2006 – 2009
Chair, Organizing Committee of NCAR/TIIME Summer Retreat on Tropical Convection and Weather Climate Interface, July 2006, Boulder, CO
Associate Editor, Journal of Climate, 2005 – 2019
AMS Committee on Hurricanes and Tropical Meteorology, 2004 – 2007
International CLIVAR's Atlantic Implementation Panel (AIP), 2004 – 2007
International Science Working Group of North American Monsoon Experiment (NAME), 2001 – 2005
Chair, Organizing Committee of MJO-ENSO workshop, 2000, Princeton, NJ
AMS Max Eaton Award committee, 1997

PUBLICATIONS

Zhang, C., J.M. Wallace, R.A. Houze, E.J. Zipser, K.A. Emanual, 2022: Relocation of GATE from the Pacific to the Atlantic. *Bulletin of the American Meteorological Society.* Accepted.

Zhang, C., and J. Moore, 2022: Anatomy of International Field Campaigns in Atmospheric and Oceanic Sciences, AGU 100 Anniversary Monograph, L. Lin, Ed., accepted.

Zhang, C., A.F. Levine, M. Wang, C. Gentemann, C.W. Mordy, E.D. Cokelet, P.A. Browne, Q.Yang, N. Lawrence-Slavas, C. Meinig, G. Smith, A. Chiodi, D. Zhang, P. Stabeno, W. Wang, H. Ren, K.A. Peterson, S. N. Figueroa, M.Steele, N.P. Barton, A. Huang, H.-C. Shin, 2022: Evaluation of Surface Conditions from Operational Forecasts Using in situ Saildrone Observations in the Pacific Arctic. Mon. Wea. Rev., 150, 1437-1455. DOI:https://doi.org/10.1175/MWR-D-20-0379.1

Hagos, S., Leung, L. R., Zhang, C., & Balaguru, K. (2022). An observationally trained Markov model for MJO propagation. Geophysical Research Letters, 49, e2021GL095663. https://doi.org/10.1029/2021GL095663

Travis N. Miles , Dongxiao Zhang, Gregory R. Foltz, Jun A. Zhang, Christian Meinig, Francis Bringas, Joaquin Triñanes, Matthieu Le Hénaff, Maria F. Aristizabal Vargas, Sam Coakley, Catherine R. Edwards, Donglai Gong, Robert E. Todd, Matthew J. Oliver, W. Douglas Wilson, Kerri Whilden, Barbara Kirkpatrick, Patricia Chardon-Maldonado, Julio M. Morell, Debra Hernandez, Gerhard Kuska, Cheyenne D. Stienbarger, Kathleen Bailey, Chidong Zhang, Scott M. Glenn, Gustavo J. Goni, 2022: Uncrewed Ocean Gliders and Saildrones Support Hurricane Forecasting and Research. Oceanography, 34, 78-81.

Martin, Z., S.W. Son, A.B., H. Hendon, H.Kim, A. Sobel, S. Yoden, and C. Zhang, 2021: The influence of the quasi- biennial oscillation on the Madden–Julian oscillation. *Nature Reviews Earth & Environment*, https://doi.org/10.1038/s43017-021-00173-9

Stevens et al. 2021: Stevens et al. 2021: EUREC4A, Earth Syst. Sci. Data, 13, 4067–4119, https://doi.org/10.5194/essd-13-4067-2021.

Quinn, P. K., Thompson, E. J., Coffman, D. J., Baidar, S., Bariteau, L., Bates, T. S., Bigorre, S., Brewer, A., de Boer, G., de Szoeke, S. P., Drushka, K., Foltz, G. R., Intrieri, J., Iyer, S., Fairall, C. W., Gaston, C. J., Jansen, F., Johnson, J. E., Krüger, O. O., Marchbanks, R. D., Moran, K. P., Noone, D., Pezoa, S., Pincus, R., Plueddemann, A. J., Pöhlker, M. L., Pöschl, U., Quinones Melendez, E., Royer, H. M., Szczodrak, M., Thomson, J., Upchurch, L. M., Zhang, C., Zhang, D., and Zuidema, P.: Measurements from the RV *Ronald H. Brown* and related platforms as part of the Atlantic Tradewind Ocean-Atmosphere Mesoscale Interaction Campaign (ATOMIC), Earth Syst. Sci. Data, 13, 1759–1790, https://doi.org/10.5194/essd-13-1759-2021, 2021.

Chiodi, A.M., C. Zhang, E. D. Cokelet, Q. Yang, C. W. Mordy, C. Gentemann, J. Cross, N. Lawrence-Slavas, C. Meinig, M. Steele, D.E. Harrison, P. Stabeno, H. Tabisola, D. Zhang, E. Burger, K. O'Brien, M. Wang, 2021: Exploring the Pacific Arctic Seasonal Ice Zone with Saildrone USVs. Front. Mar. Sci. 8:640690. doi: 10.3389/fmars.2021.640697

Asharaf, S., D.E. Waliser, D.J. Posselt, C.S. Ruf, C. Zhang, A.W. Putra, 2021: CYGNSS Ocean Surface Wind Validation in the Tropics. *J. Atmos. Oceanic Technol*., **38**, 711-724, https://doi.org/10.1175/JTECH-D-20-0079.1

Kim, J.E. and Zhang, C., 2021. Core Dynamics of the MJO. *Journal of the Atmospheric Sciences*, *78*(1), pp.229-248.

Yoneyama, K., and C. Zhang (2020): Years of the Maritime Continent (YMC): A multi-year field campaign in the largest archipelago on earth. Chapter 31 in *The Multi-Scale Global Monsoon System*, C.-P. Chang (ed.), World Scientific Publishing Company. 399 - 406.

Yang, D., A. Adame, C. Zhang, B. Wang, and B. Khouider (2020): A Review of MJO Theories. Chapter 19 in *The Multi-Scale Global Monsoon System*, C.-P. Chang (ed.), World Scientific Publishing Company. Accepted.

Kim, D., E. Maloney, and C. Zhang (2020): MJO propagation OVER the Maritime Continent. Chapter 21 in *The Multi-Scale Global Monsoon System*, C.-P. Chang (ed.), World Scientific Publishing Company. Accepted.

Zhang, C., Á. F. Adames, B. Khouider, B. Wang, D. Yang, 2020: Four Theories of the MaddenJulian Oscillation. Rev. Gephys. p.e2019RG000685..

Jiang, X., Á.F. Adames, D. Kim, E. D. Maloney, H. Lin, H. Kim, C. Zhang, C. A. DeMott, and N. P. Klingaman, 2020: Fifty Years of Research on the Madden-Julian Oscillation: Recent Progress, Challenges, and Perspectives. *Journal of Geophysical Research: Atmospheres*, e2019JD030911

Zhang, C., Á. F. Adames, B. Khouider, B. Wang, D. Yang, 2020: Four Theories of the Madden-Julian Oscillation. Rev. Gephys. p.e2019RG000685..

Yoneyama, K., & Zhang, C. (2020). Years of the Maritime Continent. Geophysical Research Letters, 47, e2020GL087182. https://doi.org/

Wei, Y., Pu, Z. and Zhang, C., 2020: Diurnal Cycle of Precipitation over the Maritime Continent under Modulation of MJO: Perspectives from Cloud-Permitting Scale Simulations. *Journal of Geophysical Research: Atmospheres*, p.e2020JD032529.

Chen, G., Ling, J., Li, C., Zhang, Y. and Zhang, C., 2020: Barrier Effect of the Indo-Pacific Maritime Continent on MJO Propagation in Observations and CMIP5 Models. *Journal of Climate*, 33, 5173-5193. *https://doi.org/10.1175/JCLI-D-19-0771.1*

Hagos, S., Foltz, G.R., Zhang, C., Thompson, E., Seo, H., Chen, S., Capotondi, A., Reed, K.A., DeMott, C. and Protat, A., 2020. Atmospheric Convection and Air-Sea Interactions over the Tropical Oceans: Scientific Progress, Challenges and Opportunities. *Bulletin of the American Meteorological Society*, *101*(3), pp.E253-E258

Roxy, M. K., P. Dasgupta, M.J. McPhaden, T. Suematsu, C. Zhang, and D. Kim, 2019: Twofold expansion of the Indo-Pacific warm pool warps the MJO life cycle, *Nature*, *575*(7784), pp.647-651.

Subramanian, A.C. M.A. Balmaseda, R. Chattopadhyay, L. Centurioni, B.D. Cornuelle, C. DeMott, T.M, Hamill, H.Hendon, I.Hoteit, M.Flatau, Y.Fujii, S.T. Gille, A.Kumar, J.-H. Lee, A.J. Lucas, M. Matsueda, A. Mahadevan, S.H. Nam, S. Paturi, S.G. Penny, A.Rydbeck, R. Sun, A. Tandon, Y. Takaya, R.E. Todd, F. Vitart, D.Yuan, C. Zhang, 2019: Ocean observations to improve our understanding, modeling, and forecasting of subseasonal-to-seasonal variability. Front. Mar. Sci. 6:427.

Meinig, C., E.F. Burger, N. Cohen, E.D. Cokelet, M.F. Cronin, J.N. Cross, S. De Halleux, R. Jenkins, A.T. Jessup, C.W. Mordy, N. Lawrence-Slavas, A. J. Sutton, D. Zhang, C. Zhang, 2019: Public Private Partnerships to Advance Regional Ocean Observing Capabilities: A

Saildrone and NOAA-PMEL Case Study and Future Considerations to Expand to Global Scale Observing. Front. Mar. Sci. 6:448.

Hagos, S., Zhang, C., Leung, L.R., Burleyson, C.D. and Balaguru, K., 2019. A Zonal Migration of Monsoon Moisture Flux Convergence and the Strength of Madden-Julian Oscillation Events. *Geophysical Research Letters*, *46*(14), pp.8554-8562.

Zelinsky, R.C., C. Zhang, and C. Liu, 2019: The Relationship Between the ITCZ and MJO Initiation over the Indian Ocean. J. Atmos. Sci., 76, 2275-2294.

Li, T., Wang, L., Peng, M., Wang, B., Zhang, C., Lau, W. and Kuo, H.C., 2018. A paper on the tropical intraseasonal oscillation published in 1963 in a Chinese journal. *Bulletin of the American Meteorological Society*, *99*(9), pp.1765-1779.

Ling, J., C. Zhang, R. Joyce, P.-P. Xie, and G. Chen, 2019: Possible Role of the Diurnal Cycle in Land Convection in the Barrier Effect on the MJO by the Maritime Continent. Geophys. Res. Lttr., 46, 3001–3011

Kim, J.-E., C. Zhang, G.N. Kiladis, P. Bechtold, 2018: Heating and Moistening of the MJO during DYNAMO in ECMWF Reforecasts, *J. Atmos. Sci*., *75*(5), pp.1429-1452.

Zhang, C. and Zhang, B., 2018. QBO-MJO Connection. *Journal of Geophysical Research: Atmospheres*, *123*(6), pp.2957-2967.

Li, X., M.A. Janiga, S. Wang, W.-K. Tao, A. Rowe, W. Xu, C. Liu, T. Matsui, and C. Zhang, 2018: Evolution of precipitation structure during November DYNAMO MJO event: Cloud-resolving model intercomparison and cross-validation using radar observations. *J. Geophys. Res., 123* (7), 3530–3555.

Wang, B., S.-S. Lee, D.E. Waliser, C. Zhang, A. Sobel, E. Maloney, T. Li, X. Jiang, and K.-J. Ha., 2018: Dynamics-oriented diagnostics for the Madden-Julian Oscillation. *J. Climate, 31* (8), 3117–3135.

Williams, P.D., M.J. Alexander, E.A. Barnes, A.H. Butler, H.C. Davies, C.I. Garfinkel, Y. Kushnir, T.P. Lane, J.K. Lundquist, R.N. Maue, W.R. Peltier, O. Romppainen–Martius, K. Sato, A.A. Scaife, C. Zhang, 2017: A census of 1 atmospheric variability from seconds to decades. *Geophys. Res. Lett*., 44. https://doi.org/10.1002/2017GL075483

Ling, J., C. Zhang, S. Wang, and C. Li, 2017: A New Interpretation of the Ability of Global Models to Simulate the MJO. Lttr. Geophys. Res. 44, doi:10.1002/ 2017GL073891.

Zhang, C. and J. Ling, 2017: Barrier Effect of the Indo-Pacific Maritime Continent on the MJO: Perspectives from Tracking MJO Precipitation. J. Climate, 30, 3439-3459.

Zhang, C. and Yoneyama, K., 2017. CINDY/DYNAMO field campaign: Advancing our understanding of MJO initiation. In *The Global Monsoon System: Research and Forecast* (pp. 339-348).

Ling, J., C. Li, T. Li, X. Jia, B. Khouider, E. Maloney, F. Vitart, Z. Xiao, and C. Zhang, 2017: Challenges and Opportunities in MJO Studies. BAMS, BAMS (2016)

Hagos, S.M., C. Zhang, C. D. Burleyson, Z. Feng, J. Benedict, C. De Mott, M. Martini, 2016: The impact of diurnal cycle on the propagation of MJO convection across the Maritime Continent. JAMES, 08, doi:10.1002/2016MS000725

Zhang, C., 2016: MJO and Extreme Weather/Climate Events, in *Dynamics and Predictability of Global and Regional High-Impact Weather and Climate Events*. J. Li, R. Swinbank, H. Volkert, and R. Grotjahn, Eds, Cambridge University Press, 2, p.294

Pilon, R., C. Zhang, and J. Dudhia, 2016: Roles of Deep and Shallow Convection and Microphysics in the MJO Simulated by the Model for Prediction Across Scales (MPAS). J. Geophys. Res. Atmos., 121(18).

Reid, J.S, P. Lynch, B. N. Holben, E. J. Hyer, E. A. Reid, S. V. Salinas, J. Zhang, J. R. Campbell, B. N. Chew, R. E. Holz, A. P. Kuciauskas, N. Lagrosas, D. J. Posselt, C. R. Sampson, A. L. Walker, E. J. Welton, C. Zhang, 2016: Aerosol meteorology of the Maritime Continent for

the 2012 7SEAS southwest monsoon intensive study: Part I regional scale phenomena. Atmos. Chem. Phys., 16, 14041–14056.
Janiga, M.A. and C. Zhang, 2016: MJO Moisture Budget during DYNAMO in a Cloud-Permitting Model. J. Atmos. Sci., 73, 2257-2278.
Liu, P., Q. Zhang, C. Zhang, Y, Zhu, M. Khairoutdinov, H.-M. Kim, C. Schumacher, M. Zhang, 2015: A Revised Real-Time Multivariate MJO Index. Mon. Wea. Rev., 144, 627-642.
Zermeno, D., C. Zhang, P. Kollias, and H. Kalesse, 2015: Shallow Cloud Moistening in MJO and non-MJO Large-Scale Convective Events over the ARM Manus Site. JAS, 72, 4797–4820.
Zermeno, D., C. Zhang, P. Kollias, and H. Kalesse, 2015: Shallow Cloud Moistening in MJO and non-MJO Large-Scale Convective Events over the ARM Manus Site. JAS, 72, 4797–4820.
Chandra, A., C. Zhang, H.-Y. Ma, and S.A. Klein, 2015: Low cloud statistics over Tropical Western Pacific in ARM observations and CAM5 simulations. J. Geophys. Res. Atmos., 120, doi:10.1002/ 2015JD023369.
Chandra, A., Zhang, C., Kollias, P., Matrosov, S., and Szyrmer, W., 2015: Automated rain rate estimates using the Ka-band ARM zenith radar (KAZR), Atmos. Meas. Tech., 8, 3685-3699, doi:10.5194/amt-8-3685-2015.
Ulate, M., C. Zhang, and J. Dudhia, 2015: Role of water vapor and convection-circulation decoupling in MJO simulations by a tropical channel model, J. Adv. Model. Earth Syst., 07, doi:10.1002/2014MS000393.
Ulate, M., J. Dudhia, and C. Zhang, 2014: Sensitivity of the water cycle over the Indian Ocean and Maritime Continent to parameterized physics in a regional model, J. Adv. Model. Earth Syst., 06, doi:10.1002/2014MS000313.
Deng, M., P. Kollias, Z. Feng, C. Zhang, C. Long, H. Kalesse, A. Chandra, V. V. Kumar, P.A. Protat, 2014: Stratiform and Convective Precipitation Observed by Multi-Wavelength Radars during the DYNAMO/AMIE Experiment. *J. Appl. Meteor. Climatol.*, **53**, 2503–2523.
Kim, D., P. Xavier, E. Maloney, M. Wheeler, D. Waliser, K. Sperber, H. Hendon, C. Zhang, R. Neale, Y.-T. Hwang, H. Liu, 2014: Process-oriented MJO Simulation Diagnostic: Moisture Sensitivity of Simulated Convection. J. Clim., 27, 5379-5395.
Ling, J., P. Bauer, P. Bechtold, A. Beljaars, R. Forbes, F. Vitart, M. Ulate, C. Zhang, 2014: Global vs. Local MJO Forecast Skill of the ECMWF model during DYNAMO. Mon. Wea. Rev., 142, 2228-2247.
Christensen, J.H., and co-authors, 2013. Climate phenomena and their relevance for future regional climate change. In *Climate Change 2013 the Physical Science Basis: Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 1217-1308). Cambridge University Press.
Gottschalck, J., P.E. Roundy, C.J. Schreck III, A. Vintzileos, and C, Zhang, 2013: Large-Scale Atmospheric and Oceanic Conditions During the 2011-12 DYNAMO Field Campaign. Mon. Wea. Rev., 141, 4173-4196.
Yoneyama, K., C. Zhang, and C.N. Long, 2013: Tracking pulses of the Madden-Julian Oscillation. Bull. Amer. Met. Soc., 94, 1871-1891.
Zhang, C., 2013: Madden-Julian Oscillation: Bridging Weather and Climate. Bull. Amer. Met. Soc., 94, 1849–1870.
Maloney, E.D., C. Zhang, 2013: Dr. Yanai's Contributions to the Discovery and Science of the MJO. *AMS Meteorological Monographs - Multi-scale Convection-Coupled Systems in the Tropics*, *56*, pp.4-1.
Tao, W.K., Takayabu, Y.N., Lang, S., Shige, S., Olson, W., Hou, A., Skofronick-Jackson, G., Jiang, X., Zhang, C., Lau, W. and Krishnamurti, T., 2016. TRMM latent heating retrieval: Applications and comparisons with field campaigns and large-scale analyses. *AMS*

Meteorological Monographs - Multi-scale Convection-Coupled Systems in the Tropics, *56*, pp.2-1.
Zermeno, D., and C. Zhang, 2013: Possible Root Causes of the Surface Westerly Biases over the Equatorial Atlantic in Global Climate Models. J. Climate, 26, 8154-8168
Ling, J., C. Zhang, and P. Bechtold, 2013: Large-Scale Distinctions Between MJO and non-MJO Convective Initiation over the Tropical Indian Ocean. J. Atmos. Sci., 70, 2696-2712.
Zhang, C., J. Gottschalck, E.D. Maloney, M.W. Moncrieff, F.Vitart, D.E. Waliser, B. Wang, M.C. Wheeler, 2013: Cracking the MJO Nut. Geophys. Res. Lttr., 40, 1223–1230. DOI: 10.1002/grl.50244.
Ling, J., and C. Zhang, 2013: Diabatic heating profiles in recent global reanalyses. J. Clim., 26, 3307-3325.
Chattopadhyay, R., A. Vintzileos, and Chidong Zhang, 2013: A Description of the Madden Julian Oscillation Based on Self Organizing Map. J. Climate, 26, 1716-1732.
Kapur, A. and C. Zhang, 2012: Multiplicative MJO Forcing of ENSO. J. Clim., 25, 8132–8147
Adams, A.M., J.M. Prospero, and C. Zhang, 2012: CALIPSO Derived Three-Dimensional Structure of Aerosol over Atlantic Basin and Adjacent Continents. J. Clim., 25, 6862-6879.
Reid, J. S., Xian, P., Hyer, E. J., Flatau, M. K., Ramirez, E. M., Turk, F. J., Sampson, C. R., Zhang, C., Fukada, E. M., and Maloney, E. D., 2012: Multi-scale meteorological conceptual analysis of observed active fire hotspot activity and smoke optical depth in the Maritime Continent, Atmos. Chem. Phys., 12, 2117-2147, doi:10.5194/acp-12-2117-2012.
Tao, W.-K., J.-P. Chen, Z.-Q. Li, C. Wang, and C. Zhang, 2012: Impact of Aerosols on Convective Clouds and Precipitation. Geophy. Rev., 50, DOI 8755-1209/12/2011RG000369
Zhang, C., and J. Ling, 2012: Potential vorticity of the Madden-Julian Oscillation. J. Atmos. Sci., 69, 65-78.
Nguyen, H., C.D. Thorncroft, and C. Zhang, 2011: Guinean coastal rainfall of the West African Monsoon. Quart. J. Roy. Met. Soc., 137, 1828-1840.
Kapur, A. C. Zhang, J. Zavala-Garay, H. H. Hendon, 2011: Role of stochastic forcing in ENSO in observations and a coupled GCM. Clim. Dyn., DOI 10.1007/s00382-011-1070-9
Thorncroft, C.D., H. Nguyen, C. Zhang, and P. Peyrillé, 2011: Annual Cycle of the West African Monsoon - Regional Circulations and Associated Water Vapor Transport. Quart. J. Roy. Met. Soc., 137, 129–147.
Ling, J., and C. Zhang, 2011: Structural evolution in heating profiles of the MJO in global reanalyses and TRMM retrievals. J. Clim., 24, 825-842.
Nolan, D.S., S.W. Powell, C. Zhang, and B.E. Mapes, 2010: Idealized Simulations of the Intertropical Convergence Zone and its Multi-level, Cross-Equatorial Flows. J. Atm. Sci., **67**, 4028–4053.
Ray, P., C. Zhang, M.W. Moncrieff, J. Dudhia, J.M. Caron, L.R. Leung, and C. Bruyere, 2010: Role of the atmospheric mean state on the initiation of the Madden-Julian Oscillation in a tropical channel model. Clim. Dyn., 35, DOI 10.1007/s00382-010-0859-2.
Zhang, C., J. Ling, S.M. Hagos, W.-K. Tao, S. Lang, Y.N. Takayabu, S. Shige, M. Katsumata, W.S. Olson, and T. L'Ecuyer, 2010: MJO Signals in Latent Heating: Results from TRMM Retrievals. J. Atmos. Sci., 67, 3488–3508.
Huang, J., C. Zhang, and J. Prospero, 2010: African Dust Outbreaks: A satellite perspective of temporal and spatial variability over the Tropical Atlantic Ocean. J. Geophys. Res., 115, D05202, doi:10.1029/2009JD012516.
Hagos, S., C. Zhang, 2010: Diabatic Heating, Divergent Circulation and Moisture Transport in The African Monsoon System. Quart. J. Roy. Met. Soc., 136(s1), 411-425.
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BOOK CHAPTERS

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INVITED TALKS

"Air-Sea Transition Zone in the Context of Monsoons", the Seventh WMO International Workshop on Monsoons, March 22 – 26, 2022

"MJO in the Maritime Continent", The 16th NOAA-BMKG Annual Workshop, September 28 – 30, 2021

"Redefine Air-Sea Interaction", NCAR ASP Workshop on the Science of S2S Predictions, August 2 – 5, 2021

"Theories of Tropical Intraseasonal Oscillation", NCAR ASP 2021 Summer Colloquium on S2S Prediction, July 12 – 23, 2021

"Observing the Ocean-Atmosphere Transition Zone", US CLIVAR Tropical Pacific Observing Needs Workshop, May 24-26, 2021

"Progress in Understanding Physical Processes and Dynamics of the MJO", Keynote at the Ninth Symposium on the Madden-Julian Oscillation and Sub-Seasonal Monsoon Variability, AMS 101st Annual Meeting, January 14, 2021.

"Transition Zones between Earth System Components", Fellow presentations, AGU Annual Meeting, December 7 – 11, 2020.

"Emerging Challenge to the MJO Study: The Barrier Effect of the Maritime Continent", International Workshop on Weather and Climate Variabilities and their Mechanisms, Beijing, 7 - 8 August 2019.

"YMC Update", MJO Task Force meeting, Singapore, July 31, 2019.

"Indo-Pacific Maritime Continent: Challenges and Opportunities", Australian Meteorological and Oceanic Society Annual Meeting and International Conference on Tropical Meteorology and Oceanography, Darwin, Australia, 14 – 19 June 2019

"Indo-Pacific Maritime Continent: A Hot Spot of Global Weather-Climate". International Symposium on Global Climate and Enviornmental Changes. Beijing, May 25-26, 2019.

"Years of the Maritime Continent". Planning Workshop for Integrated Scientific experiment of the South China Sea Monsoon. ZhuHai, 4-8 March 2019.

"MJO-QBO Connection: Knowns and Unknowns", 2018 AGU Fall Meeting, Washington, DC, 10-14 December 2018

"David Raymond's Insights into the ITCZ", David Raymon Symposium, 2018 Annual Meeting of the American Meteorological Society, Austin, TX, 11 January 2018

"From DYNAMO to YMC – Issues of MJO initiation and propagation", Institute of Atmospheric Science, Chinese Academy of Science, Beijing, China, 1 September 2017

"Monsoon Shallow Circulation", International Workshop on the Asian Monsoon in a Warmer World, Chengjiang, China, 20-23 August 2017

"Five Years After: What Have We Learned from DYNAMO?", Fifth Symposium on Prediction of the Madden-Julian Oscillation: Processes, Prediction, and Impact, AMS annual meeting, Seattle, WA, January 22-26, 2017

"DYNAMO and Beyond", Robert A. Houze, Jr. Symposium, AMS annual meeting, Seattle, WA, January 22-26, 2017

"The Indo-Pacific Maritime Continent and Its Role in Global Weather-Climate", Climate Challenge, Forum, Pusan National University, Busan, June 29, 2016

"Intraseasonal Oscillation and its impacts II: Impact on monsoons and extreme events", Asian-Pacific Climate Center S2S Training Program, Busan, June 28, 2016

"Intraseasonal Oscillation and its impacts I: Characteristics of ISO, mechanism, and understanding its predictability", Asian-Pacific Climate Center S2S Training Program, Busan, June 27, 2016

"Indo-Pacific Maritime Continent: The Crux of Global Weather-Climate", The Environmental Fluid Dynamics Laboratory, University of Notre Dame, South Bend, IN, April 5, 2016

"Role of the Indo-Pacific Maritime Continent (Malay Archipelago) in the Earth System", School of Atmospheric Sciences, Sun Yat-Sen University, Guangzhou, March 10, 2016.

"Madden-Julian Oscillation: Problems, Challenges, and Progress", AMS Annual Meeting, January 11, 2016.

"MJO Impact on Global Weather and Climate", National Hurricane Center, Miami, FL, April 8, 2014.

"CINDY/DYNAMO/AMIE/LASP Field Campaign: A Biennial Report", AMS 31st Conference on Hurricanes and Tropical Meteorology, 31 March-4 April 2014, San Diego, CA

"Moisture Processes in the Madden-Julian Oscillation", AGU Annual Meeting, Session of Grand challenges in moist process feedback in the climate system, San Francisco, CA, December 11 – 15, 2013.

"The CINDY-DYNAMO Field Campaign 2011-12", IWM-V, Macao, China, October 28 – October 28 – 31, 2013

"Convective initiation of the MJO", Atmosphere and Cryosphere Assembly 2013, 8-12 July 2013, Davos, Switzerland

"Out of the Indian Ocean: Initiation and Global Impact of the Madden-Julian Oscillation", ECMWF, June, 2013

"Global Impact of the MJO on Weather and Climate", National Taiwan University, 17 May 2013

"Tropospheric Moisture: The Crux of the MJO?", ICGPSRO2013, Taipei, Taiwan, 14-16 May 2013

"MJO Initiation: Large-Scale Diagnostics, Field Observations, and Numerical Modeling", Academia Sinica, Taipei, Taiwan, 13 May 2013.

"The 2011-12 CINDY/DYNAMO Indian Ocean Field Campaign", EGU, April 8-12, 2013

"Madden-Julian Oscillation: Its Potential Vorticity vs. Gill-Model Interpretations", EGU, April 8-12, 2013

"Processes of MJO initiation over the Indian Ocean", CAWCR Annual Workshop, Melbourne, 12-15 November, 2012.

"Preliminary thoughts from the CINDY/DYNAMO field campaign", AOGS-AGU (WPGM) Joint Assembly, Singapore, 13-17 August, 2012

"MJO and Weather/Climate Extremes", ICDM 2012 Workshop on "Dynamics and Predictability of High-impact Weather and Climate Events", Kuming, China, 6 - 9 August 2012.

"DYNAMO Field Campaign", 2012 NCAR ASP Summer Colloquium "The Weather-Climate Intersection: Advances And Challenges", June 4-22, 2012, Boulder

"DYNAMO Field Campaign", 11th Annual AMS Student Conference, New Orleans, LA January 21-22, 2012

"A strategy of isolating climatic effects of aerosol on precipitation from other weather and climate factors", IUGG 2011 General Assembly, Melbourne, Australia, 28 June - 7 July 2011.

"A PV View of the MJO and Equatorial Waves", IUGG 2011 General Assembly, Melbourne, Australia, 28 June - 7 July 2011

"DYNAMO", NOAA Climate Board, May 17, 2011

"PV of the MJO and Equatorial Waves", PAOC, MIT, Boston, MA, 9 May 2011

"A PV analysis for the MJO", The Waves and Multiscale Processes in the Tropics Workshop, American Institute of Mathematics, Palo Alto, CA, December 6 – 10, 2010

"Madden Julian Oscillation and other tropical variability", Workshop on Evaluation of Reanalyses – Developing an Integrated Earth System Analysis (IESA) Capability, Baltimore, MD, November 1-3, 2010

"DYNAMO: A Research Program on MJO Initiation", the 35th Annual Climate Diagnostics and Prediction Workshop, Raleigh, NC, October 4-7, 2010

"Role of the MJO in ENSO Simulated by CGCMs", AGU Western Pacific Geophysical Meeting, Taipei, Taiwan, June 21 – 15, 2010

"Vertical Structures of Tropical Diabatic Heating: Ubiquity of the Leading Modes and its Dynamical Implications", Courant Institute of Mathematical Sciences. November 18, 2009

"Simulations of the Madden-Julian Oscillation by Global Climate Models", International Workshop on Global Change Projection: Modeling, Intercomparison, and Impact Assessment, Yokohama, Japan, February 18-20, 2009.

"Cross-scale air sea interaction", European Centre for Medium-Range Weather Forecasts Workshop on Ocean-Atmosphere Interactions measurements, Reading, England, November 10 – 12, 2008.

"Bimodal Structure in Diabatic Heating Profiles over the Tropical Pacific Region", 2008 Western Pacific Geophysics Meeting, Cairns, Australia, July 21 – August 1, 2008.

"MJO and ENSO: A Stochastic Connection between Weather and Climate", Department of Atmospheric and Geophysical Sciences, State University of New York at Albany, February 24, 2008.

"Research Issues on Tropical Convection and Two-way Interaction with the Large-scale Flow", AMS Forum: Climate Change, 17 January 2007

"The MJO-ENSO Problem", Department of Earth and Atmospheric Sciences, Cornell University, 29 September 2006

"The MJO-ENSO Problem", Workshop on the Organization and Maintenance of Tropical

Convection and the Madden Julian Oscillation, Trieste, March 13-17, 2006

“Shallow meridional circulation in the tropics”, Center for Geophysical Research, University of Costa Rica, San José, 25 May 2005

“The structure and annual cycle of the MJO”, ECMWF/CLIVAR Workshop on Simulation and Prediction of Intra-Seasonal Variability with Emphasis on the MJO, ECMWF, 3 - 6 November 2003.

“Role of Radiation in the Large-Scale Circulation in the Western Pacific”, ARM annual meeting, Boulder, April 2003

"Observed evidence for a dynamic connection between the MJO and ENSO", European Geophysical Society XXVII General Assembly, Nice, April 2002

“MJO Theories”, NCAR Summer Colloquium, Boulder, 17 July, 2001.

“Tropical Coupled Variability”, NCAR Summer Colloquium, Boulder, 13 July, 2001.

“The MJO-ENSO Problem”, Climate Diagnoses Center, NOAA, Boulder, 25 June, 2001.

“Scrutinizing ITCZ Theories”, Program of Atmospheric and Oceanic Science, University of Colorado, Boulder, 22 June, 2001.

“The bimodality of tropical upper-tropospheric water vapor: Observations from in situ and remote sensing measurements”, NASA Goddard Space Flight Center, Grenbelft, 10 May, 2000

"The Intraseasonal Oscillation in the Atmosphere and the Ocean of the Western Pacific Warm Pool", College of the Oceanic and Atmospheric Sciences, Corvales, Oregon State University, OR, 8 March 1996

"Coherence between SST and Atmospheric Variability in the Western Pacific Warm Pool", the 8th Conference on Air-Sea Interaction, AMS, Atlanta, GA, 28 Januray - 2 February, 1996.

"Atmospheric Intraseasonal Variability at the Surface in the Western Pacific Ocean", NASA Goddard Space Flight Center, Greenbelt, MD, 18 January 1995.