PROFESSOR JIN-YI YU, Ph.D.
Department of Earth System Science University of California, Irvine
Phone: (949) 824-3878; E-Mail: jyyu@uci.edu; Web: www.ess.uci.edu/~yu
(Updated on 2/27/2021)

EDUCATION

Ph.D., 1993, Department of Atmospheric Sciences, University of Washington.
B.S., 1984, Department of Atmospheric Sciences, National Taiwan University.

EMPLOYMEMENT

2002 - present: Assistant Professor, Associate Professor, Full Professor, UC Irvine
1993 - 2002: Postdoc, Assistant Researcher, Associate Researcher, UC Los Angeles

AWARD AND HONOR

- Fellow, Meteorology Society of ROC (Taiwan), February 2019
- Oversea Expert, Chinese Academy of Sciences, August 2018.
- Outstanding Contributions Award to Undergraduate Education, School of Physical Science, University of California-Irvine, 2006-07.

SOCIETY AND COMMITTEE SERVICE

- Vice Chair, Department of Earth System Science, UC Irvine, 2018 - now.
- Faculty Advisor, Student Chapter of the American Meteorological Society at UCI, 2017 – 2019.
- Member and Vice Chair, Advisory Board, Chinese-American Oceanic and Atmospheric Association-Southern California, 1/2017 – now.
- Vice Chair, Department of Earth System Science, UC Irvine, 2006 - 2007.
- Member, US CLIVAR Working Group on ENSO Diversity, 2011- 2016.
- Panelist, DOE proposal review panels, 2009, 2010.
- Panelist, NOAA proposal review panel, 2013.
- Member, Cicerone Fellowship Committee, UC Irvine, 2010.
- Chair, Chinese-American Oceanic and Atmospheric Association-Southern California, 2009 - 2010.
- Invited Visiting Scientist, Germany National Research Center for Information Technologies, Germany, 1998.

EDITORIAL SERVICE

- Deputy Editor-In-Chief, Advances in Atmospheric Sciences, 1/2021 -
- Editorial Board Member, Journal of Systems Analysis Modelling Simulation, Gordon and Breach Science Publisher, 2001-2003.
- Guest Editor, Journal of System Analysis Modeling Simulation, Special Issue on "*Environmental Modeling and Simulation*", Volume 42, Number 2, 2002.
- Co-Editor, *Environmental Modeling and Simulation* (ISBN: 1-56555-181-8), Ed. Achim Sydow and Jin- Yi Yu, published by The Society For Computer Simulation International, 2000, 146pp.
- Co-Editor, *1999 International Conference on Mission Earth* (ISBN: 1-56555-162-1), published by The Society For Computer Simulation International, 1999, 122pp.
- Co-Editor, *1998 Conference on Mission Earth: Modeling and Simulation of the Earth System* (ISBN: 1- 56555-139-7), published by The Society For Computer Simulation International, 1989, 116pp.

RESEARCH EXPERTISE

Dr. Yu's research expertise is in climate modeling, dynamics, and diagnosis. His research work covers a wide range of issues, from global-scale climate changes in the coupled atmosphere-ocean system to regional-scale variations in the Asian and North American monsoons. In recent years, his research has focused on El Niño complexity and inter-basin interactions among the Pacific, Atlantic, and Indian Oceans.

RESEARCH EXPERIENCE

ENSO complexity dynamics

- Invent the terms and concept of "Central Pacific ENSO" and "Eastern Pacific ENSO" to study the existence of different types of El Nino-Southern Oscillation (ENSO).
- Develop a subtropical forcing theory to explain the underlying dynamics of complex ENSO evolutions.
- Identify the impacts of ENSO complexity on global climate.
- Evaluate and explain the performance of contemporary climate models in simulating ENSO complexity and its global impacts.

Cross-basin interactions

- Examine the roles of Atlantic and Indian Oceans in modulating ENSO dynamics and activities.
- Identify the atmospheric, oceanic, and coupled processes involved in the cross-basin interactions among the Pacific, Atlantic, and Indian Oceans.
- Discover a strengthening effect of Arctic warming on Pacific-Atlantic climate connectivity.
- Study the linkages between Pacific Decadal Oscillation and Atlantic Multi-decadal Oscillation.
- Examine the cross-basin impacts of Atlantic Multi-decadal Oscillation on Pacific Climate.
- Study the cross-basin interactions during the 1970s and 1990s climate shifts.

Indian Ocean and monsoon variabilities

- Contrast the internal and forced parts of the Indian Ocean dipole mode of SST variability.
- Study the interactions between Indian Ocean and monsoon and their contributions to Tropospheric Biennial Oscillation.
- Study the recent changes of Indian-Australian monsoon interactions.
- Study the roles of Indonesian Through Flow in modulating Pacific-Indian Ocean interactions.

Jet stream and baroclinic wave dynamics

- Study the life cycle of baroclinic waves and its baroclinic and barotropic energy conversion.
- Study the interactions between baroclinic waves and jet stream.
- Propose a wave-mean flow interaction theory to explain the latitudinal oscillation of jet stream.
- Study the interactions among jet stream, baroclinic waves, and orographic-forced stationary waves.

Marine stratocumulus clouds and its climate roles

- Study the impacts marine boundary layer clouds on tropical atmosphere-ocean interactions.
- Propose methodologies to improved climate model simulations of marine stratus clouds.
- Identify the impacts of Peruvian stratocumulus on the eastern Pacific cold tongue climate and variability.

Climate model developments

- Develop from scratch an atmospheric GCM using a full Galerkin method at University of Washington.
- Couple the UCLA AGCM and LANL POP for a new global and parallel coupled atmosphere-ocean GCM.
- Develop a basin coupled/decoupled technique to study cross-basin interactions with coupled CCMs.

PUBLICATIONS

(more than 100 peer-reviewed papers; total citation number=7471 times; annual citation of ~ 1000 times; the corresponding-authored paper of Kao and Yu (2009) has been cited 1296 times; based on Google Scholar) (*Corresponding author)*

2021

- **(2021)** Lin*****, I-I et al., 2021: A Tale of Two Rapidly-Intensifying Supertyphoons: Hagibis (2019) and Haiyan (2013), *Bulletin of the American Meteorological Society*, under review.
- **(2021)** Hu, H.-M et al., 2021: The westerly drift in Europe since the middle Holocene, *Nature Geosciences*, under review.
- **(2021)** Chen, M., **J.-Y. Yu***, X. Wang*****, and S. Chen, 2021: Two types of CP El Niño and their different Linkages to Australian Monsoon and subtropical Pacific. *Geophysical Research Letters*, in revision.
- **(2021)** Kim, J.-W., T.-H. Chang, C.-T. Lee, and **J.-Y. Yu***, 2021: On the Varying Responses of East Asian Winter Monsoon to Three Types of El Nino: Observations and Model Hindcasts, *Journal of Climate*.

doi:10.1175/JCLI-D-20-0784.1.

- **(2021)** Lin, Y.-F., J.-Y. Yu*, C.-R. Wu, and F. Zheng, 2021: The footprint of the 11-year solar cycle in Northeastern Pacific SSTs and its influence on the Central Pacific El Nino, *Geophysical Research Letters*. **48**, e2020GL091369. DOI: 10.1029/2020GL091369.
- **(2021)** Kim*, J.-W. and **J.-Y. Yu**, 2021: Evolution of Subtropical Pacific-Onset El Nino: How its Onset Location Controls its Decay Evolution. *Geophysical Research Letters*, **48**, e2020GL091345. DOI: 10.1029/2020GL091345.
- **(2021)** Mamalakis, A., J. Randerson, **J.-Y. Yu**, M. Pritchard, G. Magnusdottir, P. Smyth, P. A. Levine, S. Yu,, and E. Foufoula-Georgiou*, 2021: Zonally contrasting shifts of the tropical rain belt in response to climate change, *Nature Climate Change*, **11**, 143–151. DOI: 10.1038/s41558-020-00963-x.
- **(2021)** Chen, M., T-H Chang, C-T Lee, S-W Fang, & **J-Y Yu***, 2021: A Study of Climate Model Responses of the Western Pacific Subtropical High to El Niño Diversity, *Climate Dynamics*, **56**, 581-595. doi: 10.1007/s00382-020-05500-2.

2020

- **(2020)** Zhang, L., Y. Du*, W. Cai, Z. Chen, T. Tozuka, **J.-Y. Yu**, 2020: Triggering the Indian Ocean Dipole from the Southern Hemisphere. *Geophysical Research Letters,* **47***,* e2020GL088648. DOI: 10.1029/2020GL088648.
- **(2020)** Fang, S.-W. and **J.-Y. Yu***, 2020: Contrasting ENSO transition complexity between El Niño and La Niña: In observations and CMIP5/6 models. *Geophysical Research Letters*, **47**, e2020GL088926. DOI: 10.1029/2020GL088926.
- **(2020)** He, S., **J.-Y. Yu***, S. Yang*, and S.-W. Fang, 2020: Why does the CP El Niño less frequently evolve into La Niña than the EP El Niño? *Geophysical Research Letters*, **47**, e2020GL087876. DOI: 10.1029/2020GL087876.
- **(2020)** Fang, S. W. and **J.-Y. Yu***, 2020: A Control of ENSO Complexity by Tropical Pacific Mean SSTs through Tropical-Subtropical Interactions. *Geophysical Research Letters*, **47**, e2020GL087933. doi:10.1029/2020GL087933.
- **(2020)** Kim*, J.-W. and **J.-Y. Yu**, 2020: Understanding Re-intensified Multi-year El Niño Events. *Geophysical Research Letters*, **47**, e2020GL087933. doi:10.1029/2020GL087644.
- **(2020)** He, S., **J.-Y. Yu***, S. Yang*, and S.-W. Fang, 2020: ENSO's impacts on the tropical Indian and Atlantic Oceans via tropical Processes: CMIP5 simulations versus observations. *Climate Dynamics*, **54**, 4627-4640. doi: 10.1007/s00382-020-05247-w.
- **(2020)** Chen, J., **J.-Y. Yu, X**. Wang*, L. Tao, 2020: Different influences of southeastern Indian Ocean and western Indian Ocean SST anomalies on eastern China rainfall during the decaying summer of 2015/16 extreme El Nino, *Journal of Climate*, **33**, 5427-5443. doi: 10.1175/JCLI-D-19-0777.1.
- **(2020)** Wang*, J. K., **J.-Y. Yu**, and K. R. Johnson, 2020: Pacific and Atlantic controls of the relationship between Mainland Southeast Asian and East China interannual precipitation variability, *Climate Dynamics*, **54**, 4279-4292. doi:10.1007/s00382-020-05227-0.
- **(2020)** Hu*, Z.-Z., M. J. McPhaden, A. Kumar, **J.-Y. Yu**, and N. C. Johnson, 2020: Uncoupled El Nino Warming, *Geophysical Research Letters*, **47**, e2020GL08762. DOI: 10.1029/2020GL087621.
- **(2020)** Hu*, Z.-Z., A. Kumar, B. Huang, J. Zhu, M. L'Heureux, M. J. McPhaden, and **J.-Y. Yu**, 2020: The Interdecadal Shift of ENSO Properties in 1999/2000: A Review, *Journal of Climate*, **33**, 4441-4462. DOI: 10.1175/JCLI-D-19-0316.1.
- **(2020) Yu*, J.-Y**., E. Campos, Y. Du, T. Eldevik, S. T. Gille, T. Losada, M. J. McPhaden, L. H. Smedsrud: Variability of the Oceans, Book Chapter in *Interacting Climates of Ocean Basins*, C. R. Mechoso (Ed.), Cambridge University Press, page 1-36. DOI: 10.1017/9781108610995.
- **(2020)** Kug*, J.-S., J. Vialard ,Y.-G. Ham, **J.-Y. Yu**, and M. Lengaigne: Remote forcing: Influence of climate variability outside the tropical Pacific, Book Chapter in *El Nino Southern Oscillation in a Changing Climate*, M. J. McPhaden, A. Santoso, and W. Cai (Ed.), AGU Books, Geophysical Monograph 253, page 247-265. doi:10.1002/9781119548164.ch11.

2019

- **(2019)** Song*, W. and **J.-Y. Yu***: Identifying the complex types of atmosphere-ocean interactions in El Nino,

Environmental Research Letters, **14**, 114030, doi:10.1088/1748-9326/ab4968.

- **(2019)** Wu*, C.-R., Y.-F. Lin, Y.-L. Wang, N. Keenlyside, and **J.-Y. Yu**: An Atlantic-driven rapid circulation change in the North Pacific Ocean during the late 1990s, *Scientific Reports*, **9**, 1-8, doi: 10.1038/s41598-019-51076-1.
- **(2019)** Mamalakis, A., **J.-Y. Yu**, J. Randerson, A. AghaKouchak, and E. Foufoula-Georgiou*: Correspondence: The New Zealand Index and its interhemispheric influence on the northwestern Pacific climate, *Nature Communications*, **10**, DOI: 10.1038/s41467-019-10531-3.
- **(2019)** Chen, C.-C., M.-H. Lo*, E.-S. Im, **J.-Y. Yu**, Y.-C. Liang, W.-T. Chen, I. Tang, C.-W. Lan, R.-J. Wu, R.-Y. Chien: Thermodynamic and dynamic responses to deforestation in the Maritime Continent: A modeling study, *Journal of Climate*, **32**, 3505-3527, doi:10.1175/JCLI-D-18-0310.1.
- **(2019)** Cai*, W., L. Wu, M. Lengaigne, T. Li, S. McGregor, J. Kug, **J.-Y. Yu**, and co-authors: Pan-tropical climate interactions, *Science*, **363** (6430), eaav4236, DOI: 10.1126/science.aav4236.
- **(2019)** Chen, M., **J.-Y. Yu**, X. Wang*, and W. Jiang: The changing impact mechanisms of a diverse El Nino on the Western Pacific Subtropical High, *Geophysical Research Letters*, DOI: 10.1029/2018GL, In Press.
- **(2019)** Tuo, P., **J.-Y. Yu***, and J. Hu: The changing influences of ENSO and the Pacific Meridional Mode on mesoscale eddies in the South China Sea, *Journal of Climate*, **32**, 685-700.
- **(2019)** Xu*, L. and **J.-Y. Yu**: An ENSO-induced aerosol dipole in the west-central Pacific and its potential feedback to ENSO evolution*, Climate Dynamics*, DOI: 10.1007/s00382-018-4435-5.

2018

- **(2018) Yu*, J.-Y.** and S.-W. Fang: The distinct contributions of the seasonal footprinting and charged-discharged mechanisms to ENSO complexity, *Geophysical Research Letters*, **45**, 6611-6618.
- **(2018)** Liang*, Y.-C., M. Mazloff, I. Rosso, S.-W. Fang, and **J.-Y. Yu**: A Multi-variate Empirical Orthogonal Function Method to Construct Nitrate Maps in the Southern Ocean, *Journal of Atmospheric and Oceanic Technology*, **35**, 1505-1519.
- **(2018)** Yang*, S., Z. Li, **J.-Y. Yu**, X. Hu, W. Dong, and S. He: El Nino-Southern Oscillation and Its Impact in the Changing Climate, *National Science Review*, nwy046, doi: 10.1093/nsr/nwy046.
- **(2018)** Mamalakis, A., **J.-Y. Yu**, J.T. Randerson, A. AghaKouchak, and E. Foufoula-Georgiou*: Beyond ENSO: A new teleconnection increases predictability of winter precipitation in southwestern US, *Nature Communications*, 9, doi: 10.1038/s41467-018-04722-7.
- **(2018)** Wang*, L. and **J.-Y. Yu**: A recent shift in the monsoon centers associated with the Tropospheric Biennial Oscillation, *Journal of Climate*, **31**, 325-340.

2017

- **(2017)** Liang, Y.-C., **J.-Y. Yu***, E. Saltzman, and F. Wang: Linking the Tropical Northern Hemisphere Pattern to the Generation of the Pacific Warm Blob and Atlantic Variability, *Journal of Climate*, **30**, 9041-9057.
- **(2017)** Lyu*, K. and **J.-Y**. **Yu**: Climate impacts of the Atlantic Multidecadal Oscillation simulated in the CMIP5 models: a re-evaluation based on a revised index, *Geophysical Research Letters*, **44**, DOI: 10.1002/2017GL072681.
- **(2017)** Wang*, L., **J.-Y. Yu**, and H. Paek: Enhanced biennial variability in the Pacific due to Atlantic capacitor effect, *Nature Communications*, **8**, 14887, doi:10.1038/ncomms14887.
- **(2017)** Paek*, H., **J.-Y. Yu**, and C. Qian: Why were the 2015/16 and 1997/98 Extreme El Niños different? *Geophysical Research Letters*, **44**, 1848-1856, DOI: 10.1002/2016GL071515.
- **(2017)** Xu*, L., **J.-Y. Yu**, S. Jordan, and M. Prather: The Seasonality and Geographic Dependence of ENSO Impacts on US Surface Ozone Variability, *Geophysical Research Letters*, **44**, 3420-3428, doi: 10.1002/2017GL073044.
- **(2017)** Lyu*, K., **J.-Y**. **Yu**, and H. Paek: The influences of the Atlantic Multidecadal Oscillation on the Mean Strength of the North Pacific Subtropical High during Boreal Winter, doi:10.1175/JCLI-D-16-0525.1, *Journal of Climate*, **30**, 411-426. doi: http://dx.doi.org/10.1175/JCLI-D-16-0525.1.
- **(2017) Yu*, J-Y**, X. Wang, S. Yang, H. Paek, and M. Chen: Changing El Nino-Southern Oscillation and Associated Climate Extremes, *Climate Extremes: Mechanisms and Potential Prediction*, S. Wang et al. (Eds.), AGU Monograph, AGU Geophysical Monograph Series, Vol. 226, Pages 3-38.
- **(2017)** Lyu*, K., X. Zhang, J. Church, J. Hu, and J**.-Y. Yu**, 2017: Distinguishing the Quasi-decadal and

Multi-decadal Sea Level and Climate Variations in the Pacific: Implications for the ENSO-like Low-frequency Variability, *Journal of Climate*, **30**, 5097-5117.

- **(2017)** Zheng* F., **J.-Y. Yu**, and J. Zhu, 2017: Contrasting the skills and biases of deterministic predictions for the two types of El Nino, Advances in Atmospheric Sciences, 34, 1395-1403, doi: 10.1007/s00376-017-6324-y.

2016

- **(2016)** Zheng, Fei, X.-H. Fang, J. Zhu, **J.-Y. Yu**, and X. Li, 2016: Modulation of Bjerknes feedback on the decadal variations in ENSO predictability, *Geophysical Research Letters*, **43**, 12,560-12,568, doi:10.1002/2016GL071636.
- **(2016)** Wang*, C., C. Deser, **J.-Y. Yu**, P. DiNezio, and A. Clement, 2016: El Nino and Southern Oscillation (ENSO): A Review. In Coral Reefs of the Eastern Tropical Pacific: Persistence and Loss in a Dynamic Environment, P.W. Glynn, D.P. Manzello, and I.C. Enochs (eds.). Springer Netherlands, 85-106, doi:10.1007/978-94-017-7499-4_4.
- **(2016)** Chen, C., H. Lin, **Yu, J.-Y**.; and M.-H. Lo*, 2016: The 2015 Borneo fires: what have we learned from the 1997 and 2006 El Ninos? *Environmental Research Letters*, 11, doi:10.1088/1748-9326/11/10/104003.
- **(2016)** Paek, H**., J-Y Yu** *, F. Zheng, and M.-M. Lu, 2016: Impacts of ENSO Diversity on the Western Pacific and North Pacific Subtropical Highs during Boreal Summer, *Climate Dynamics*, DOI: 10.1007/s00382-016-3288-z.
- **(2016)** McCabe-Glynn*, S., K. Johnson , C. Strong , Y. Zou, **J-Y Yu**, J. Welker, S. Sellars, 2016: Isotopic signature of extreme precipitation events in the Western US and associated phases of Arctic and tropical climate modes, *Journal of Geophysical Research - Atmospheres*, 121, 8913-8924, DOI: 10.1002/2016JD025524
- **(2016)** Li*, A. K., H. Paek, and **J.-Y. Yu**, 2016: The changing influences of the AMO and PDO on the decadal variation of the Santa Ana winds, *Environmental Research Letters*, 11, doi:10.1088/1748-9326/11/6/064019.
- **(2016)** Pani*, S., S.-H. Wang , S.-C. Tsay , S. Lolli , M.-T. Chuang , C.-T. Lee , S. Chantara , **J.-Y. Yu**, 2016: Assessment of aerosol optical property and radiative effect for the layer decoupling cases over the northern South China Sea during the 7-SEAS/Dongsha Experiment, *Journal of Geophysical Research - Atmospheres*, 121, 4894-4906, DOI: 10.1002/2015JD024601.
- **(2016)** Gao*, Tao**, J-Y Yu**, and H. Paek, 2016: Impacts of Four Northern-Hemisphere Teleconnection Patterns on Atmospheric Circulations over Eurasia and the Pacific, *Theoretical and Applied Climatology*, DOI 10.1007/s00704-016-1801-2.
- **(2016)** Liang, Y-C, C-C Chou, **J-Y Yu***, and M-H Lo, 2016: Mapping the Locations of Asymmetric and Symmetric Discharge Responses in Global Rivers to the Two Types of El Nino, *Environmental Research Letters*, 11, doi:10.1088/1748-9326/11/4/044012.

2015

- **(2015)** Zheng*, F., W. Zhang, **J.-Y. Yu**, and Q.-L. Chen, 2015: A Possible Bias of Simulating the Post-2000 Changing ENSO, Science Bulletin, **60**, 1850-1857.
- **(2015)** Wey, H-W, M-H Lo*, S-Y Lee, **J-Y Yu**, and H-H Hsu, 2015: Potential impacts of wintertime soil-moisture anomalies from agricultural irrigation at low latitudes on regional and global climates, *Geophysical Research Letters*, DOI: 10.1002/2015GL065883.
- **(2015) Yu*, J-Y**, H. Paek, E. S. Saltzman, and T. Lee, 2015: The early-1990s change in ENSO-PSA-SAM relationships and its impact on Southern Hemisphere climate, *Journal of Climate* (Special Collection on Tropical-Polar Connections), DOI: 10.1175/JCLI-D-15-0335.1.
- **(2015)** Yu*, B., X. Zhang, H. Lin, and **J-Y Yu, 2015**: Comparison of wintertime North American climate impacts associated with multiple ENSO indices, *Atmosphere-Ocean*, DOI:10.1080/07055900.2015.1079697.
- **(2015)** Liang, Y-C, **J-Y Yu***, M-H Lo, and C. Wang, 2015: The Changing Influence of El Niño on the Great Plains Low-Level Jet, *Atmospheric Science Letters*, DOI: 10.1002/asl.590.
- **(2015)** Paek, H., **J.-Y., Yu***, J.-W. Hwu, M.-M. Lu, and T. Gao, 2015: A Source of AGCM Bias in

Simulating the Western Pacific Subtropical High: Different Sensitivities to the Two Types of ENSO, *Monthly Weather Review*, **143**, 2348-2362.

- **(2015)** Capotondi*, A., A. T. Wittenberg, M. Newman, E. Di Lorenzo, **J.-Y. Yu**, P. Braconnot, J. Cole, B. Dewitte, B. Giese, E. Guilyardi, F.-F. Jin, K. Karnauskas, B. Kirtman, T. Lee, N. Schneider, Y. Xue, S.-W. Yeh, 2015: Understanding ENSO diversity, *Bulletin of the American Meteorological Society*, **96**, 921-938.
- **(2015) Yu*, J-Y** and H. Paek, 2015: Precursors of ENSO beyond the tropical Pacific, *US CLIVAR Variations*, Winter 2015 Issue, **13**, No. 1, 15-20**. (Invited Article; reviewed by the editor)**
- **(2015) Yu*, J-Y**, P-K Kao, H Paek, H-H Hsu, C-W Hung, M-M Lu, S-I An, 2015: Linking Emergence of the Central-Pacific El Niño to the Atlantic Multi-decadal Oscillation, *Journal of Climate*, **28**, No. 2, 651-662, doi: 10.1175/JCLI-D-14-00347.1.
- **(2015)** Lin*, C.-Y., **J.-Y. Yu**, and H.-H. Hsu, 2015: CMIP5 model simulations of the Pacific meridional mode and its connection to the two types of ENSO, *International journal of climatology*, DOI: 10.1002/joc.4130.

2014

- **(2014)** Sheffield*, J., A. Barrett, D. Barrie, S. J. Camargo, E. K. M. Chang, B. Colle, D. N. Fernando, R. Fu, K. L. Geil, Q. Hu, X. Jiang, N. Johnson, K. B. Karnauskas, S. T. Kim, J. Kinter, S. Kumar, B. Langenbrunner, K. Lombardo, L. N. Long, E. Maloney, A. Mariotti, J. E. Meyerson, K. C. Mo, J. D. Neelin, S. Nigam, Z. Pan, T. Ren, A. Ruiz-Barradas, R. Seager, Y. L. Serra, A. Seth, D.-Z. Sun, J. M. Thibeault, J. C. Stroeve, C. Wang, S.-P. Xie, Z. Yang, L. Yin, **J.-Y. Yu**, T. Zhang, and M. Zhao, 2014: Regional climate processes and projections for North America: CMIP3/CMIP5 differences, attribution and outstanding issues. *NOAA Technical Report* OAR CPO-2, 47 pp. **(Peer reviewed)**
- **(2014)** Qian, C., **J.-Y. Yu***, G. Chen, 2014: Decadal Summer Drought Frequency in China: The increasing influence of the Atlantic Multi-decadal Oscillation, *Environmental Research Letters*, **9**, No. 12. (01 December 2014), 124004, doi:10.1088/1748-9326/9/12/124004.
- **(2014)** Zheng*, Fei, X.-H. Fang, **J.-Y. Yu**, and J. Zhu, 2014: Asymmetry of the Bjerknes Positive Feedback between the Two Types of El Niño, *Geophysical Research Letters*, **41**, 7651-7657, doi:10.1002/2014GL062125.
- **(2014)** Ma*, T. and **J.-Y. Yu**, 2014: Paradox in South Asian summer monsoon circulation change: Lower tropospheric strengthening and upper tropospheric weakening, *Geophysical Research Letters*, DOI: 10.1002/2014GL059891.
- **(2014)** Ma*, T. and **J.-Y. Yu**, 2014: Linking centennial surface warming patterns in the equatorial Pacific to the relative strengths of the Walker and Hadley circulations, *Journal of Atmospheric Sciences*, **71**, 3454-3464, DOI: 10.1175/JAS-D-14-0028.1.
- **(2014)** Qu*, T. and **J.-Y. Yu**, 2014: Sea Surface Salinity Indices of El Niño Detected by Aquarius and Argo, *Journal of Oceanography*, **70**, 367-375, DOI 10.1007/s10872-014-0238-4.
- **(2014)** Zou, Y., **J.-Y. Yu***, T. Lee, M.-M. Lu, S. T. Kim, 2014: CMIP5 Model Simulations of the Impacts of the Two Types of El Niño on US Winter Temperature, *Journal of Geophysical Research*, DOI: 10.1002/2013JD021064.
- **(2014)** Liang*, Y.-C., M.-H. Lo, and **J.-Y. Yu,** 2014: Asymmetric Responses of Land Hydroclimatology to Two Types of El Niño in the Mississippi River Basin, *Geophysical Research Letters*, DOI: 10.1002/2013GL058828.
- **(2014)** Kim*, S. T., W. Cai, F.-F. Jin, and **J.-Y. Yu,** 2014: ENSO Stability in Coupled Climate Models and its Association with Mean State, *Climate Dynamics*, doi: 10.1007/s00382-013-1833-6.

2013

- **(2013) Yu*, J.-Y.** and B. S. Giese, 2013: ENSO diversity in observations, U.S. *CLIVAR Variations*, **Vol. 11**, No. 2, 1-5.
- **(2013)** de Linage*, C., H. Kim , J. Famiglietti and **J.-Y Yu**, 2013: Impact of Pacific and Atlantic sea surface temperatures on interannual and decadal variations of GRACE land water storage in Tropical South America, *Journal of Geophysical Research*, **118**, 10,811-10,829, doi: 10.1002/jgrd.50820..
- **(2013)** Capotondi*, A., B Kirtman, A Wittenberg, M Newman, N Schneider, Y Xue, B Giese, P Braconnot,

J Cole, B Dewitte, E Guilyardi, F-F Jin, T Lee, K Karnauskas, S-W Yeh, **J-Y Yu**, 2013: U.S. CLIVAR ENSO Diversity Workshop Report, U.S. CLIVAR: Climate Variability and Predictability, Report No. 2013-1, 23pp.

- **(2013)** Sheffield*, J. and co-authors (**J.-Y. Yu**), 2013: North American Climate in CMIP5 Experiments. Part II: Evaluation of 20th Century Intra-Seasonal to Decadal Variability, *Journal of Climate,* **23**, 9247-9290.
- **(2013) Yu, J.-Y.** and Y. Zou, 2013**:** The Enhanced Drying Effect of Central-Pacific El Niño on US Winter, *Environmental Research Letters*, 8, doi:10.1088/1748-9326/8/1/014019.
- **(2013)** Choi, J., S.-I. An*, S.-W. Yeh, and **J.-Y. Yu**, 2013: ENSO-like and ENSO-induced Tropical Pacific Decadal Variability in CGCMs, *Journal of Climate*, **26**, 1485-1501. DOI: 10.1175/JCLI-D-12-00118.1.
- **(2013) Yu*, J.-Y.** and S. T. Kim, 2013: Identifying the Types of Major El Niño Events since 1870, *International Journal of Climatology*, **33**, 2105-2112. DOI: 10.1002/joc.3575.

2012

- **(2012) Yu*, J.-Y**., Y. Zou, S. T. Kim, and T. Lee, 2012: The Changing Impact of El Niño on US Winter Temperatures, *Geophysical Research Letters*, doi:10.1029/2012GL052483.
- **(2012)** Kim*, S. T. and **J.-Y. Yu**, 2012: The Two Types of ENSO in CMIP5 Models, *Geophysical Research Letters*, **39**, L11704, doi:10.1029/2012GL052006.
- **(2012)** Kim, S. T., **J.-Y. Yu***,* A. Kumar, and H. Wang, 2012: Examination of the Two Types of ENSO in the NCEP CFS Model and Its Extratropical Associations, *Monthly Weather Review*, **140**, 1908-1923.
- **(2012)** Kim*, S. T., **J.-Y. Yu**, and M.-M. Lu, 2012: Distinct Behaviors of Pacific and Indian Ocean Warm Pool Properties on Seasonal and Interannual Timescales, *Journal of Geophysical Research*, **117**, D05128, doi:10.1029/2011JD016557.
- **(2012) Yu*, J.-Y**., M.-M. Lu, and S. T. Kim, 2012: A change in the relationship between tropical central Pacific SST variability and the extratropical atmosphere around 1990, *Environmental Research Letters*, 7, doi:10.1088/1748-9326/7/3/034025.

2011

- **(2011) Yu*, J.-Y**. and S. T. Kim, 2011: "Reversed spatial asymmetries between El Niño and La Niña and their linkage to decadal ENSO modulation in CMIP3 Models", *Journal of Climate*, **24**, 5423-5434.
- **(2011) Yu*, J.-Y**. and S. T. Kim, 2011: Relationships between Extratropical Sea Level Pressure Variations and the Central-Pacific and Eastern-Pacific Types of ENSO. *Journal of Climate*, **24**, 708-720.
- **(2011) Yu*, J.-Y.**, H.-Y. Kao, T. Lee, and S. T. Kim, 2011: Subsurface Ocean Temperature Indices for Central- Pacific and Eastern-Pacific Types of El Niño and La Niña Events. *Theoretical and Applied Climatology*, **103**, 337-344, DOI: 10.1007/s00704-010-0307-6.

2010

- **(2010) Yu*, J.-Y**., Kao, H.-Y., and T. Lee, 2010: Subtropics-Related Interannual Sea Surface Temperature Variability in the Equatorial Central Pacific. *Journal of Climate*, **23**, 2869-2884.
- **(2010) Yu*, J.-Y.** and S. T. Kim, 2010: Identification of Central-Pacific and Eastern-Pacific Types of ENSO in CMIP3 Models, *Geophysical Research Letters*, L15705, doi:10.1029/2010GL044082.
- **(2010) Yu*, J.-Y.** and S. T. Kim, 2010: Three Evolution Patterns of Central-Pacific El Niño. *Geophysical Research Letters*, **37**, L08706, doi:10.1029/2010GL042810.
- **(2010)** Weng*, S.-P. and **J.-Y. Yu**, 2010: A CGCM study on the northward propagation of tropical intraseasonal oscillation over the Asian summer monsoon regions. *Journal of Terrestrial, Atmospheric and Oceanic Sciences,* **21**, 299-312.
- **(2010)** Weng*, S.-P. and **J.-Y. Yu**, 2010: Impacts of Pacific and Indian Ocean Coupling on Wintertime Tropical Intraseasonal Oscillation: A Basin-Coupling CGCM Study. *International Journal of Climatology*, **30**, 359-371.

2009

- **(2009) Yu*, J.-Y.**, F. Sun, and H.-Y. Kao, 2009: Contributions of Indian Ocean and Monsoon Biases to the Excessive Biennial ENSO in CCSM3. *Journal of Climate*, **22**, 1850-1858
- **(2009)** Kao, H.-Y. and **J.-Y. Yu***, 2009: Contrasting Eastern-Pacific and Central-Pacific types of ENSO,

Journal of Climate, **22**, 615-632.

- **(2009)** Sun, F. and **J.-Y. Yu***, 2009: A 10-15year Modulation Cycle of ENSO Intensity. *Journal of Climate*, **22**, 1718-1735.

Before 2008

- **(2008) Yu*, J.-Y**., 2008: Understanding El Niño Southern Oscillation and its interactions with the Indian Ocean and monsoon. Book chapter in *Recent Progress in Atmospheric Sciences with Applications to the Asia- Pacific Region*, Liou, K N and Chou, M D (Ed.), World Scientific Publishing, Singapore, 3-22.
- **(2007) Yu*, J.-Y.** and Matthew A. Janiga, 2007: Changes in the In-Phase Relationship Between the Indian and Subsequent Australian Summer Monsoons During the Past Five Decades. *Annales Geophysicae*, **25**, 1929-1933.
- **(2007) Yu*, J.-Y**. and H.-Y. Kao,, 2007: Decadal Changes of ENSO Persistence Barrier in SST and Ocean Heat Content Indices: 1958-2001. *Journal of Geophysical Research*, **112**, D13106, doi:10.1029/ 2006JD007654.
- **(2006)** Sun, F and **J.-Y. Yu***, 2006: Impacts of Central America gap winds on the SST annual cycle in the Eastern Pacific warm pool. *Geophysical Research Letters*, **33**, L06710, doi:10.1029/2005GL024700.
- **(2005) Yu*, J.-Y**., 2005: Enhancement of ENSO's persistence barrier by biennial variability in a coupled atmosphere-ocean general circulation model. *Geophysical Research Letters*, **32**, L13707, doi:10.1029/ 2005GL023406.
- **(2004) Yu*, J.-Y**. and K. M. Lau, 2004: Contrasting Indian Ocean SST variability with and without ENSO influence: A coupled ocean-atmosphere model study. *Meteorology and Atmospheric Physics*, DOI: 10.1007/s00703-004-0094-7.
- **(2003) Yu, J.-Y.**, S.-P. Weng, and J. D. Farrara, 2003: Ocean roles in the TBO transitions of the Indian-Australian monsoon system. *Journal of Climate*, 16, 3072-3080.
- **(2003) Yu*, J.-Y**. and W. T. Liu, 2003: A linear relationship between ENSO intensity and tropical instability wave activity in the eastern Pacific Ocean. *Geophysical Research Letters*, 30(14), 1735, doi:10.1029/ 2003GL017176.
- **(2003)** Farrara*, J. D. and **J.-Y. Yu**, 2003: Interannual variations in the North American monsoon and SST anomalies: A general circulation model study. *Journal of Climate*, **16**, 1703-1720.
- **(2003) Yu*, J.-Y**., 2003: Identifications and applications of coupled climate models. Invited article in *The Encyclopedia of Life Support Systems*, EOLSS Publisher, Oxford, UK. 15pp.
- **(2003)** C. R. Mechoso, J. D. Neelin, and **J.-Y. Yu**, 2003: Testing simple model of ENSO, *Journal of Atmospheric Sciences*, **60**, 305-318.
- **(2002) Yu*, J.-Y**., C. R. Mechoso, J. C. McWilliams, and A. Arakawa, 2002: Impacts of the Indian Ocean on the ENSO cycle. *Geophysical Research Letters*, **29**, 461-464.
- **(2002)** Davey*, M. K., M. Huddleston, K.R. Sperber, S.B. Power, R.A. Colman, G. Flato, M. Kimoto, L. Terray, D. DeWitt, E. Roeckner, J. Oberhuber, R. Voss, U. Cubasch, T.R. Knutson, S. Manabe, B. Wang, L. Fairhead, H. Le Treut, A. Vintzileos, P. Delecluse, P. Braconnot, I. Yoshikawa, D. Chen, S.E. Zebiak, C. Gordon, C. Cooper, M. Latif, S. Yukimoto, A. Kitoh, F. Bryan, G.A. Meehl, W.M. Washington, M. Ji, T. Hogan, T. Li, **J.-Y. Yu**, C. R. Mechoso, 2002: STOIC: A study of coupled GCM climatology and variability in tropical ocean regions. *Climate Dynamics*, 18, 403-420.
- **(2001) Yu*, J.-Y.** and C.R. Mechoso, 2000: A coupled atmosphere-ocean GCM study of the ENSO cycle. *Journal of Climate*, **14**, 2329-2350.
- **(2001)** Latif*, M. K. Sperber, A. Arblaster, P. Braccanot, D. Chen, A. Colman, U. Cubasch, M. Davey, P. Delecleuse, D. De Witt, L. Fairhead, G. Flato, M. Ji, M. Kimoto, A. Kitoh, T. Knutson, H. Le Treut, S. Manabe, O. Marti, C. Mechoso, G. Meehl, J. Oberhuber, S. Power, E. Roeckner, L. Terray, A. Vintzileos, R. Vob, B. Wang, W. Washington, I. Yoshikawa, **J.-Y. Yu**, S. Zebiak, 2001: ENSIP: The El Niño Simulation Intercomparison Project. *Climate Dynamics*, **18**, 255-276.
- **(2000) Yu*, J.-Y.**, W. T. Liu, and C.R. Mechoso, 2000: The SST anomaly dipole in the Northern Subtropical Pacific and its relationship with ENSO. *Geophysical Research Letters*, **27**, 1931-1934.
- **(2000) Yu*, J.-Y.**, 2000: A general circulation model of the atmosphere using the full-Galerkin method.

Journal of Mathematics and Computers in Simulation, **52**, 427-443.

- **(2000)** Mechoso*, C. R., **J.-Y. Yu**, and A. Arakawa, 2000: A coupled GCM pilgrimage: From climate catastrophe to ENSO simulations. Book Chapter in *General Circulation Model Development: Past, Present, and Future.*, D. A. Randall, Eds., Academic Press, 539-575.
- **(2000)** Mechoso*, C. R., J. D. Farrara, L.A. Drummond, J. Spahr and **J.-Y. Yu**, 2000: An atmosphere- ocean model: Code optimization and application to El Niño. Book Chapter in *Development and Application of Computer Techniques to Environmental Studies VIII*. D. A. Gabriel Ibarra-Berastegi, C. A. Brebbia and P. Zanetti, Eds, WIT Press, 544pp.
- **(1999) Yu*, J.-Y.,** and C.R. Mechoso, 1999: Links between annual variations of Peruvian stratocumulus clouds and of SSTs in the eastern equatorial Pacific. *Journal of Climate*, 12, 3305-3318.
- **(1999) Yu*, J.-Y.,** and C.R. Mechoso, 1999: A discussion on the errors in the surface heat fluxes simulated by a coupled GCM. *Journal of Climate*, **12**, 416-426.
- **(1997) Yu*, J.-Y.**, C. R. Mechoso, J. D. Farrara, Y.-J. Kim, J.-L. Li, M. Köhler, and A. Arakawa, 1997: Recent development of the UCLA coupled atmosphere-ocean GCM. *Research Activities in Atmospheric and Oceanic Modelling*. A. Staniforth, ed., WMO/TD-No. 792, 9.24-9.25.
- **(1997) Yu*, J.-Y**., and C. R. Mechoso, 1997: Impact of cloud radiative effects on the simulation of Tropical Pacific. *Research Activities in Atmospheric and Oceanic Modelling*. A. Staniforth, ed., WMO/TD-No. 792, 7.81-7.82.
- **(1995) Yu*, J.-Y.**, and D.L. Hartmann, 1995: Orographic influences on the distribution and generation of atmospheric variability in a GCM. *J. Atmos. Sci.*, **52**, 2428-2443.
- **(1993) Yu*, J.-Y.**, and D.L. Hartmann, 1993: Zonal flow vacillation and eddy forcing in a simple GCM of the atmosphere. *J. Atmos. Sci.*, **50**, 3244-3259.

INVITED SEMINARS AND PRESENTATIONS

- **(2020)** "CWB Model Performance on Hindcasting Tropical Intraseasonal Oscillations during Boreal Winter and Summer: the MJO and BSISO", Central Weather Bureau of Taiwan, Taipei, Taiwan, December 9, 2020.
- **(2020)** "Reversal summer and winter trends in Taiwan Strait Sea Surface Temperature", Central Weather Bureau of Taiwan, Taipei, Taiwan, December 9, 2020.
- **(2020)** "Multi-year ENSOs: Their unique dynamics, climate impacts, and El Nino-La Nina asymmetries", Research Center for Environmental Changes, Academia Sinica, Taipei, Taiwan, December 2, 2020.
- **(2020)** "Multi-year ENSOs: Their unique dynamics, climate impacts, and El Nino-La Nina asymmetries", National Central University, Chung-Li, Taiwan, December 1, 2020.
- **(2020)** "Multi-year ENSOs: Their unique dynamics, climate impacts, and El Nino-La Nina asymmetries", National Taiwan University, Taipei, Taiwan, November 26, 2020.
- **(2020)** "ENSO diversity dynamics", Winter School on Wind-driven Circulation in the World's Oceans and Global Marine Environmental Changes, Guangzhou, China, November 9-20, 2020.
- **(2020)** "ENSO transition dynamics", Winter School on Wind-driven Circulation in the World's Oceans and Global Marine Environmental Changes, Guangzhou, China, November 9-20, 2020.
- **(2020)** "ENSO teleconnections", Winter School on Wind-driven Circulation in the World's Oceans and Global Marine Environmental Changes, Guangzhou, China, November 9-20, 2020.
- **(2020)** "Inter-basin interactions", Winter School on Wind-driven Circulation in the World's Oceans and Global Marine Environmental Changes, Guangzhou, China, November 9-20, 2020.
- **(2019)** "ENSO transition complexity dynamics", The 10th International Workshop on Tropical Marine Environmental Changes (MEC 2019): The Oceans and Climate, Guangzhou, China, November 24-25, 2019.
- **(2019)** "The Changing El Niño in the 21st Century: Properties, Dynamics, and Impact", APEC Climate Symposium 2019, Punta Arenas, Chile, August 20-22, 2019.
- **(2018)** "ENSO Complexity and Its Impacts on Pacific and Indian Oceans", The 3rd WPOC-ITF International Symposium on Western Boundary Currents and ENSO, Climate dynamics", Qingdao, China, October 30-31,

2019.

- **(2018)** "The Changing Influences of ENSO and PMM on South China Sea", Workshop on Intraseasonal oscillations and extended-range prediction of persistent weather events, Taipei, Taiwan, October 18-19, 2018.
- **(2018)** "A simple view of ENSO complexity dynamics", South China Sea Institute of Oceanology, Guangzhou, China, August 30, 2018.
- **(2018)** "A simple view of ENSO complexity dynamics", Sun Yat-sen University, Guangzhou, China, August 31, 2018.
- **(2018)** "The ENSO Complexity: Its Underlying Dynamics and Impacts on Western Pacific Climate", Invited Speaker for The Third Open Science Symposium on Western Pacific Ocean Circulation and Climate, Qingdao, China, May 8-10, 2018.
- **(2018)** "Contributions of inter-basin interaction to ENSO complexity", Invited Speaker for Workshop on Tropical Inter-basin Interactions, Xiamen, Fujian, China, January 21-23, 2018.
- **(2017)** "The Changing El Niño and Its Impacts on Indo-Pacific Climate", Invited Speaker for The 2nd International Symposium on Western Pacific Ocean Circulation -Indonesian Through flow (WPOC-ITF) studies, Lombok, Indonesia, November 27-28, 2017.
- **(2017)** "The increased influences of the Atlantic Ocean on tropical Pacific climate and variability", Invited Speaker for International Workshop on Tropical-subtropical Weather, Climate and Oceans, Guangzhou, China. November 18-20, 2017.
- **(2017)** "A new view on the ENSO onset dynamics", Invited Speaker for International Conference on Climate Variability and Air-Sea Interaction, Taipei, Taiwan. October 12-13, 2017.
- **(2017)** "The recent intensification of the Pacific-Atlantic climate connectivity", Invited Speaker for International Symposium on Advances in Seasonal to Decadal Prediction, Beijing, China. September 18-20, 2017.
- **(2017)** "Inter-Basin Interactions: Evidence and cause for the recent intensification", Invited Speaker for the Annual Institute Seminar Series, Institute of Oceanology, Chinese Academy of Sciences, Qingdao, China. July 12, 2017.
- **(2017)** "Central Pacific El Niño: Its underlying dynamics and global impacts", Invited Speaker for the Key Laboratory of Ocean Circulation and Waves, Institute of Oceanology, Chinese Academy of Sciences, Qingdao, China. July 13, 2017.
- **(2017)** "Pacific-Atlantic interactions heat up: Evidence from El Nino and Mid-latitude Blobs", Invited Speaker for Session on "Climate Variability and Predictability", *The 51st CMOS (Canadian Meteorological and Oceanographic Society) Congress*, Toronto, Canada, June 4-8, 2017.
- **(2017)** "Inter-Basin Interactions: Evidence and reason for the recent intensification", Invited Speaker for *Symposium on Ocean Circulations*, Guangzhou, China. April 21-22, 2017.
- **(2016)** "The increased Influence of Atlantic Ocean on Pacific Climate after Early 1990s", Central Weather Bureau, Taipei, Taiwan. December 26, 2016.
- **(2016)** "Inter-Basin Interactions", *Winter School on "Oceanic circulation and climate change"*, South China Sea Institute of Oceanography, Chinese Academy of Sciences, Guangzhou, Guangdong, China. November 14-25, 2016.
- **(2016)** "AMO and Pacific Climate Shifts", *Winter School on "Oceanic circulation and climate change"*, South China Sea Institute of Oceanography, Chinese Academy of Sciences, Guangzhou, Guangdong, China. November 14-25, 2016.
- **(2016)** "The Central-Pacific El Nino: Dynamics, Impacts, and the Cause of Its Recent Emergence", Institute of Tropical and Marine Meteorology, Guangzhou, Guangdong, China. November 17, 2016.
- **(2016)** "El Niño and Its Changing Impacts on Climate ", *Winter School on "The Impacts of Climate Change: Oceans"*, Osher Lifelong Learning Institute, Irvine, California. October 14, 2016.
- **(2016)** "The increased influence of Atlantic Ocean on Pacific climate after early 1990s", CLIVAR Pacific Regional Panel Meeting, Qingdao, Shandong, China. September 17-18, 2016.

- **(2016)** "El Nino Diversity and Its Climate Impacts on Tibetan and Surrounding Areas", *International Workshop on Land Surface Multi-spheres Processes of Tibetan Plateau and their Environmental and Climate Effects Assessment*, Xining, Qinghai, China. September 9-11, 2016.
- **(2016)** "The Early-1990s Climate Shift in the Pacific and the ENSO Diversity", Invited Speaker for the session on "Ocean-Atmosphere Interaction in the Tropics", *Japan Geoscience Union (JpGU) Meeting 2016*, Chiba, Japan. May 22-26, 2016.
- **(2016)** "The journey from the Traditional El Niño to the Central-Pacific El Niño: An Overview", National Central University, Chun-Li, Taiwan. March 16, 2016.
- **(2016)** "The Early-1990s Climate Shift in the Pacific and the ENSO diversity", Dynamic Seminar at UCLA Department of Atmospheric and Oceanic Sciences, Los Angeles, California. February 12, 2016.
- **(2016)** "How Global Warming is Changing El Niño Behavior, and its Impacts on US Climate", Newport Bay Conservancy *Symposium on "Climate Change, a Godzilla El Niño, and Their Impacts on Oceans and Estuaries"*, Newport, California. January 30, 2016.
- **(2015)** "The Early-1990s Climate Shift in the Pacific", *2015 Weather and Climate Diagnostic Workshop*, Taipei, Taiwan. September 15-17, 2015.
- **(2015)** "Central-Pacific El Niño and the Early-1990s Climate Shift", *International Geographical Union (IGU) Regional Conference*, Moscow, Russia. August 16-21, 2015.
- **(2015)** "The Changing El Niño and Its Impacts on Western Pacific Extreme Weather", *2015 International Workshop on Typhoon and Flood (IWTF) - APEC Experience Sharing on Hazardous Weather Events and Risk Management*, Taipei, Taiwan. May 27-29, 2015.
- **(2015)** "Central Pacific El Niño and Early-1990s Climate Shift", Department of Atmospheric and Oceanic Sciences, University of Wisconsin-Madison, Madison, Wisconsin, March 2.
- **(2014)** "El Niño since the Early-1990s Climate Shift in the Pacific", in the session of *ENSO, its precursor, and their change under global warming, AGU Annual Fall Meeting*, San Francisco, California. December 15-19.
- **(2014)** "El Niño-Southern Oscillation and Its Teleconnection", Invited lecture in the *Workshop and School on Tropical ocean and Air-Sea Interaction*, organized by South China Sea Institute of Oceanography, Chinese Academy of Sciences, Guangzhou, China, November 10-21.
- **(2014)** "Understanding Madden-Julian Oscillation", Invited lecture in the *Workshop and School on Tropical ocean and Air-Sea Interaction*, organized by South China Sea Institute of Oceanography, Chinese Academy of Sciences, Guangzhou, China, November 10-21.
- **(2014)** "Linking the Emergence of Central-Pacific El Niño to the Phase Change of the Atlantic Multi-decadal Oscillation", in the session of *Dynamics of ENSO and Tropical Climate Variability, AOGS 11th Annual Meeting*, Sapporo, Japan. July 28-August 1.
- **(2014)** "Linking Emergence of the Central-Pacific El Niño to the Atlantic Multi-decadal Oscillation", *National Taiwan University*, Taipei, Taiwan. June 11.
- **(2014)** "Central-Pacific El Niño, Pacific Subtropical highs, and Decadal Droughts in China", *National Taiwan Normal University*, Taipei, Taiwan. June 9.
- **(2014)** "Relationships between Subtropical Highs and the Two Types of El Niño in the CWB AGCM", *Central Weather Bureau*, Taipei, Taiwan. June 9.
- **(2013)** "The Central-Pacific El Niño: Its Generation Mechanism and Interactions with the Asian Monsoon", *Asian Monsoon Years (2007-2012) Open Science Conference (AMY-OSC)*, Zhuhai, China. October 26-27.
- **(2013)** "CMIP5 Models and ENSO Diversity", Department of Atmospheric Sciences, University of Sun Yat-Sen University, Guangzhou, China, October 24, 2013.
- **(2013)** "The Central-Pacific El Niño: Dynamics, Impacts, and Causes of Its Recent Increase in Frequency", Department of Atmospheric Sciences, University of Sun Yat-Sen University, Guangzhou, China, October 24, 2013.
- **(2013)** "The Central-Pacific El Niño: Dynamics, Impacts, and Causes of Its Recent Increase in Frequency", by South China Sea Institute of Oceanography, Guangzhou, China, October 23, 2013.
- **(2013)** "Central Pacific El Niño: Dynamics and Climate Impacts", *CLIVAR International Symposium on Boundary Current Dynamics*, Lijian, China. July 8-10.

- **(2013)** "Extratropical Forcing and the Emergence of Central-pacific El Niño in Recent Decades", *The 10th Asian Oceania Geosciences Annual Meeting*, Brisbane, Australia. June 24-28.
- **(2013)** "Central-Pacific El Niño: Dynamics, Climate Impacts, and the Cause of Its Recent Emergence", *Workshop on the two-types of the El Niño: the aspect, coupling process, formation mechanism, and climate effects*, Nanjing, China. June 14-15.
- **(2013)** "Central-Pacific El Niño: Dynamics, Climate Impacts, and the Cause of Its Recent Emergence" Institute of Atmospheric Physics, Chinese Academy of Science, Beijing, China. June 14.
- **(2013)** "Central-Pacific El Niño: Dynamics, Climate Impacts, and the Cause of Its Recent Emergence", International Center for Climate and Environmental Sciences, Beijing, China. June 9.
- **(2013)** "Changing Impact of El Niño on US Climate: Observation and CMIP5 Simulations", *The Second CCliCS Workshop on Climate System Modeling*, Taipei, Taiwan, April 1-3, 2013.
- **(2013)** "North Pacific Subtropical High: An Overview ", *Central Weather Bureau*, Taipei, Taiwan, March 28, 2013.
- **(2013)** "A Journey from Traditional El Niño to the New Type of Central-Pacific El Niño: A Historical Overview ", Fisheries Research Institute of Taiwan, Keelung, Taiwan, March 27, 2013.
- **(2013)** "Central-Pacific El Niño: Dynamics, Climate Impacts, and the Cause of Its Recent Emergence", *The Twenty-Sixth Pacific Climate Workshop*, Pacific Grove, California. March 3-6.
- **(2013)** "Central-Pacific El Niño: Dynamics, climate impacts, and the cause of its recent emergence", *ENSO Diversity Workshop*, Boulder, CO, February 6-8, 2013.
- **(2012)** "Emergence of the Central-Pacific El Niño and Its Impacts on Climate Research", National Sun-Yat-Sen University, Kaoshiung, Taiwan, December 7, 2012.
- **(2012)** "The Emerging Central-Pacific El Niño", The 2012 Summer Workshop on ENSO, Honolulu, Hawaii, June 20-22.
- **(2012)** "Identification of the Two Types of ENSO", US CLIVAR - ENSO Diversity Working Group Teleconference, May 16.
- **(2012)** "The Two Types of ENSO in CMIP5 Models and Their Different Impacts on North America Winter Temperature", NOAA MAPP Program Webminar Series, NOAA, May 2.
- **(2012)**, "The Emerging Central-Pacific El Niño", The 2012 Summer Workshop on ENSO, Honolulu, Hawaii, June 20-22, 2012.
- **(2012)** "Identification of the Two Types of ENSO", US CLIVAR - ENSO Diversity Working Group Teleconference, May 16, 2012.
- **(2012)** "The Two Types of ENSO in CMIP5 Models and Their Different Impacts on North America Winter Temperature", NOAA MAPP Program Webminar Series, NOAA, May 2, 2012.
- **(2012)** "Central-Pacific El Niño: Dynamics, Impacts, and Modeling", National Central University, Chung-Li, Taiwan, March 22, 2012.
- **(2012)** "Central-Pacific El Niño: Dynamics, Impacts, and Modeling", National Taiwan University, Taipei, Taiwan, March 21, 2012.
- **(2012)** "Impacts of the two types of ENSO on North America climate", Central Weather Bureau of Taiwan, Taipei, Taiwan, March 20, 2012.
- **(2011)** "El Niño-Southern Oscillation: A Diagnostics of the Performance of the New Coupled Model", CCliCS Workshop on Climate System Modeling, Taipei, Taiwan, November 17-18, 2011.
- **(2011)** "The emergence of a new type of El Niño in recent decades", Department of Land, Air, and Water Resources, University of California, Davis, CA, October 18, 2011.
- **(2010)** "Understanding and Modeling the Emerging Central- Pacific ENSO", Workshop on New strategies for evaluating ENSO processes in climate models, Paris, France, November 17-19, 2010.
- **(2010)** "Central-Pacific El Niño: Evolution, Generation, and Prediction", COAA 5th International Conference on Atmosphere-Ocean Interaction, Taipei, Taiwan, June 28-30, 2010.
- **(2010)** "Transitions between Central-Pacific El Niño and Eastern-Pacific El Niño: Roles of thermocline and sea level pressure", National Taiwan Normal University, June 21, 2010.

- **(2009)** "El Niño without Southern Oscillation: A New View of Tropical Pacific Warming", National Central University, Chung-Li, Taiwan, November 23, 2009.
- **(2009)** "El Niño without Southern Oscillation: A New View of Tropical Pacific Warming", Central Weather Bureau, Taipei, Taiwan, November 19, 2009.
- **(2009)** "El Niño without Southern Oscillation: A New View of Tropical Pacific Warming", Yonsei University, Seoul, Korea, November 17, 2009.
- **(2009)** "El Niño without Southern Oscillation: A New View of Tropical Pacific Warming", Seoul National University, Seoul, Korea, November 16, 2009.
- **(2009)** "A Two-Oscillator View of ENSO", Purdue University, September 10, 2009.
- **(2009)** "Contrasting Central-Pacific and Eastern-Pacific Types of ENSO", California Institute of Technology, February 10, 2009.
- **(2008)** "Verifying ENSO modulation mechanisms with IPCC/AR4 coupled models", National Taiwan University, November 27, 2008.
- **(2008)** "Verifying ENSO modulation mechanisms with IPCC/AR4 coupled models", Central Weather Bureau, November 26, 2008.
- **(2008)** "Verifying ENSO modulation mechanisms with IPCC/AR4 coupled models", National Central University, November 24, 2008.
- **(2007)** "Contrasting Eastern-Pacific and Central-Pacific types of ENSO", Research Center for Environmental Changes, Taiwan, December 3, 2007
- **(2007)** "Is ENSO one oscillator or two?", National Taiwan Normal University, 12/ 4/2007.
- **(2007)** "ENSO-basic state interactions", NationalCentral University, 12/5/2007.
- **(2007)** "Why is the model ENSO too biennial?",Central Weather Bureau, 12/6/ 2007.
- **(2007)** "A 10-15year modulation cycle of ENSO intensity", National Taiwan University, 12/6/2007.
- **(2006)** "Air-sea interactions over warm oceans", Presented at National Taiwan Normal University, Department of Earth Science, Taipei, Taiwan, May 11, 2006.
- **(2006)** "A centennial journey toward understanding and predicting the El Niño", Presented at National Taiwan Normal University, Department of Geography, Taipei, Taiwan, May 10, 2006.
- **(2005)** "Monsoon-ocean interactions during tropospheric biennial oscillation", Scripps Institute of Oceanography, February 23, 2005, San Diego, California.
- **(2004)** "Monsoon-ocean interactions during TBO", Central Weather Bureau, December 12, 2004, Taipei, Taiwan.
- **(2004)** "Roles of Indian Ocean in tropical climate variability", National Central University, December 13, 2004, Chungli, Taiwan.
- **(2004)** "Multi-scale interactions among tropical instability wave, the ITCZ in the eastern Pacific Ocean", Remote Sensing and radiation Symposium, December 17, 2004, Taipei, Taiwan.

SEMINARS AND PRESENTATIONS

- **(2021) J.-Y. Yu**, J.-W. Kim, and S.-W. Fang: Decadal Modulations of ENSO Complexities by Inter-basin Interactions. *CLIVAR Trans Interbasin Interaction Workshop*, virtual, February 24-26, 2021.
- **(2020)** Lin, I.-I., R. F Rogers, H.-C. Huang, Y.-C. Liao, **J.-Y. Yu**, C. M. Patricola, J. Zhang, D. Herndon, Y. Chang, I.-F. Pun, and C.-C. Lien: Rapid Intensification of Super typhoon Hagibis (2019), *AGU Fall Meeting*, San Francisco, CA, USA, December 2020.
- **(2020)** Mamalakis, A., E. Foufoula-Georgiou, J.T. Randerson, **J.-Y. Yu**, M.S. Pritchard, G. Magnusdottir, P.A. Levine, Y. Sungduk, and P. Smyth: Zonally variable response of the intertropical convergence zone and energy flux equator in CMIP6 future climate, *AGU Fall Meeting*, San Francisco, CA, USA, December 2020.
- **(2020)** Kao, H.-Y., G. Lagerloef, **J.-Y. Yu**: Seasonal to Interannual variations of salinity fronts under Pacific ITCZ from spaceborne observations and their associations with ENSO, *AGU Fall Meeting*, San Francisco, CA, USA, December 2020.
- **(2020) Yu, J.-Y.** and S.-W. Fang: Contrasting ENSO transition complexities between El Niño and La Niña: The

underlying complexity dynamics and future changes, *AGU Fall Meeting*, San Francisco, CA, USA, December 2020.

- **(2020)** Kim, J.-W. and **J.-Y. Yu**: Understanding Re-intensified Multi-year El Niño Events, *AGU Fall Meeting*, San Francisco, CA, USA, December 2020.
- **(2020)** Lin, Y.-F., **J.-Y. Yu**, and C.R. Wu: Influences of Atlantic Multidecadal Oscillation on the North Pacific Ocean circulation, *AGU Fall Meeting*, San Francisco, CA, USA, December 2020.
- **(2019)** Kim, J.-W. and **J.-Y. Yu**: Contrasting the Evolution Patterns between Charged-Discharged- and Seasonal Footprinting- Onset ENSO events, *AGU Fall Meeting*, San Francisco, CA, USA, December 2019.
- **(2019)** Fang, S.-W. and **J.-Y. Yu**: ENSO Transition Complexity and Its Underlying Dynamics in CMIP6 Models, *AGU Fall Meeting*, San Francisco, CA, USA, December 2019.
- **(2019) Yu, J.-Y.** and S.-W. Fang: A Control of ENSO Complexity by Tropical Pacific Mean SSTs through Tropical-Subtropical Interactions, *AGU Fall Meeting*, San Francisco, CA, USA, December 2019.
- **(2019)** Mamalakis, A., E. Foufoula-Georgiou, J.T. Randerson, **J.-Y. Yu**, M.S. Pritchard, G. Magnusdottir, P.A. Levine, Y. Sungduk, and P. Smyth: Zonally asymmetric response of the intertropical convergence zone to the RCP8.5, *AGU Fall Meeting*, San Francisco, CA, USA, December 2019.
- **(2019)** Mamalakis, A., J.T. Randerson, **J.-Y. Yu**, M.S. Pritchard, G. Magnusdottir, P. Smyth, P.A. Levine and E. Foufoula-Georgiou (2019) Evidence for diverging regional responses of the intertropical convergence zone under global warming, *Large ENSembles (LENS) Workshop*, NCAR, Boulder, CO, USA, July 2019.
- **(2019)** Mamalakis, A., **J.-Y. Yu**, J.T. Randerson, A. AghaKouchak, and E. Foufoula-Georgiou: Drivers of winter precipitation variability over the southwestern US: Interdecadal changes and new physical mechanisms, *Data Analytics for Climate and Earth (DANCE): Causality, patterns and prediction*, March, 27-29, 2019, Arrowhead, CA (USA).
- **(2019)** Mamalakis, A., J.T. Randerson, **J.-Y. Yu**, M.S. Pritchard, G. Magnusdottir, P. Smyth, P.A. Levine and E. Foufoula-Georgiou: Future response of the intertropical convergence zone under global warming, *International Precipitation Conference 12 (IPC12)*, Irvine, CA, USA, June 2019.
- **(2018)** Mamalakis, A., **J.-Y. Yu**, J.T. Randerson, A. AghaKouchak, and E. Foufoula-Georgiou: Interdecadal changes in the climatic drivers of regional hydroclimatology in southwestern US: A new inter-hemispheric teleconnection increases predictability of winter precipitation, American Geophysical Union, *AGU Fall Meeting*, Washington D.C., USA, December 2018.
- **(2018)** Mamalakis, A., **J.-Y. Yu**, J.T. Randerson, A. AghaKouchak, and E. Foufoula-Georgiou: Interdecadal changes in the climatic drivers of regional hydroclimatology in southwestern US: A new inter-hemispheric teleconnection increases predictability of winter precipitation, American Geophysical Union, *AGU Fall Meeting*, Washington D.C., USA, December 2018.
- **(2018)** Mamalakis, A., **J.-Y. Yu**, J.T. Randerson, A. AghaKouchak, and E. Foufoula-Georgiou: A newly discovered inter-hemispheric teleconnection increases predictability of precipitation extremes in southwestern US, *European Geosciences Union General Assembly*, Vienna, Austria, April 2018.
- **(2017)** Mamalakis, A., J.-Y. Yu, J.T. Randerson, A. AghaKouchak, and E. Foufoula-Georgiou: A new interhemispheric teleconnection increases predictability of winter precipitation in southwestern US, American Geophysical Union, AGU Fall Meeting, New Orleans, USA, December 2017.