

# Kai-Chih Tseng (Kai)

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<b>Address</b>	201 Forrestal Rd, Princeton, NJ 08540	<b>Phone</b>	+1 (719) 201 3204
<b>Email</b>	Kai-chi.Tseng@noaa.gov kaichiht@princeton.edu	<b>website</b>	<a href="https://kuiper2000.github.io/">https://kuiper2000.github.io/</a>

## Education and Professional Training

- 2019 Aug –** Postdoctoral Fellow- Princeton University/NOAA GFDL  
Advisor: Dr. Nat Johnson
- 2016 Aug – 2019 Jun** Ph.D. in Atmospheric Science - Colorado State University  
Advisors: Dr. Elizabeth Barnes, Dr. Eric Maloney  
Graduated with Honors  
  
(2014 Sep – 2015 Oct : in Military Service)
- 2008 Aug – 2014 Jun** B.S. and M.S. in Atmospheric Science - National Taiwan University  
Advisor: Dr. Chung-Hsiung Sui  
GPA – B.S./majors/M.S. 4.10/4.20/4.25 (4.30 scale)  
Graduated with College Honors (top 5% in both BS and MS)

## Publications

1. Bushuk, M., and **co-authors**: Seasonal prediction and predictability of regional Antarctic sea ice (submitted to Earth and Space Science Open Archive (ESSOAr))
2. Zhang, G., and **co-authors**: Seasonal Predictability of Baroclinic Waves Establishes Pathway Toward Predicting Extratropical Extremes (submitted to Nature Geoscience)
3. **Tseng K.-C.**, and co-authors: The response of atmospheric river to a warmer climate and time of signal emergence (in preparation)
4. **Tseng K.-C.**, and co-authors: Seasonal Prediction of western North America Atmospheric Rivers (to be submitted)
5. **Tseng K.-C.**, N. C. Johnson., E. D. Maloney, E. A. Barnes, and S. B. Kapnick: Mapping Large-scale Climate Variability to Hydrological Extremes: An Application of the Linear Inverse Model to Subseasonal-to-Seasonal prediction (submitted to JCLim)
6. **Tseng K.-C.**, E. A. Barnes, and E. D. Maloney: The important role of the MJO for extratropical variability in observations and the CMIP5 climate models (submitted to JGR-Atmosphere)
7. **Tseng K.-C.**, E. D. Maloney and E. A. Barnes, 2020: The consistency of MJO teleconnection patterns on interannual timescales *J. Climate*, **33**, 3471-3486
8. **Tseng K.-C.**, E. A. Barnes, and E. D. Maloney, 2020: The importance of past MJO activity in determining the future state of midlatitude circulation *J. Climate* **33**, 2131-2147
9. **Tseng K.-C.**, E. D. Maloney, and E. A. Barnes, 2019: Explaining the consistency of MJO teleconnection patterns with linear Rossby wave theory, *J. Climate*, **32**, 531–548.
10. **Tseng K.-C.**, E. A. Barnes, and E. D. Maloney, 2018: Prediction of the midlatitude response to strong Madden-Julian oscillation events on S2S timescales, *Geophys. Res. Lett.*, **45**, 463–470.

11. **Tseng K.-C.**, C.-H. Sui., and T. Li, 2015: Moistening Processes of MJO events during DYNAMO/CINDY, *J. Climate*, **28**, 3041–3057.

## Honors and Awards

<b>2019</b>	Alumni Award (the best Ph.D. paper of the year)	Colorado State University
<b>2018</b>	Shrake-Culler Scholarship (outstanding academic record)	Colorado State University
<b>2016</b>	Program of Research and Scholarly Excellence	Colorado State University
<b>2014</b>	Deans Award, (the best M.S. thesis of the year)	National Taiwan University
<b>2011 – 2015</b>	International Research Fellowship	National Taiwan University
<b>2012</b>	Deans Award, top 5% of undergraduate students	National Taiwan University
<b>2012</b>	NICAM workshop Traveling Grant (the only undergrad recipient)	University of Tokyo
<b>2008 – 2011</b>	Presidential Award (top 5% of the class in the academic year)	National Taiwan University
<b>2009 – 2010</b>	Hsu Shui-Sen Fellowship	Changhua County, Taiwan

## Conference Presentations

1. **Tseng K.-C.**, E. A. Barnes and E. D. Maloney, 2019 : The importance of past MJO activity in determining the future state of extratropical circulations, AGU [poster]
2. **Tseng K.-C.**, E. A. Barnes and E. D. Maloney, 2018 : Explaining the consistency of MJO teleconnection patterns with linear Rossby wave theory, Second International Conference on Subseasonal to Seasonal Prediction (S2S) and Second International Conference on Seasonal to Decadal Prediction (S2D) [poster]
3. **Tseng K.-C.**, E. A. Barnes and E. D. Maloney, 2017 : Prediction of North Pacific Height Anomalies During Strong Madden-Julian Oscillation Events, AGU Fall Meeting [oral]
4. **Tseng K.-C.**, E. A. Barnes and E. D. Maloney, 2017 : Forecasting North Pacific Height Anomalies with the MJO on S2S timescales , 30th Conference on Climate Variability and Change/24th Conference on Probability and Statistics in the Atmospheric Sciences/16th Conference on Artificial Intelligence and its Applications to the Environmental Sciences [oral]
5. **Tseng K.-C.**, and C.-H. Sui, 2016 : Moistening Process in Observed and Simulated MJOs during DYNAMO/CINDY-(cumulus properties diagnosis), 32nd Conference on Hurricanes and Tropical Meteorology [oral]
6. **Tseng K.-C.**, and C.-H. Sui, 2014A Diagnosis of Boundary Layer Moistening Processes for Madden-Julian Oscillations During DYNAMO IOP, 31st Conference on Hurricanes and Tropical Meteorology, AMS, 6B.C [oral]

## Reviewer Experience

1. Journal of Climate
2. npj, Climate and Atmospheric Science (Nature)
3. Geophysical Research Letter
4. JGR-Atmosphere
5. Climate Dynamics
6. Advances in Atmospheric Sciences
7. Monthly Weather Review
8. GFDL internal review