**Shao Ying (Clare) Huang**

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**EDUCATION**

**Ph.D.** Department of the Geophysical Sciences, **University of Chicago**. 2017  
Dissertation: “Finite-Amplitude Local Wave Activity as a Diagnostic of Anomalous Weather Events” (Advisor: Noboru Nakamura)

**B.Sc. (Physics)** Department of Physics, **The Chinese University of Hong Kong**. 2011

Senior Thesis: “A shell-model study of polymer effects on homogeneous turbulent thermal convection” (Advisor: Emily S. C. Ching)

**PUBLICATION**

* Lubis, S.W, **C. S. Y. Huang**, and N. Nakamura: Role of Finite-Amplitude Wave Activity and Mixing in Eddy Forcing during Sudden Stratospheric Warming, submitted to *Geophys. Res. Lett.*.
* Nakamura, N., and **C. S. Y. Huang**. Atmospheric blocking as a traffic jam in the jet stream, submitted to *Science*.
* Lubis, S.W, **C. S. Y. Huang**, N. Nakamura, N. Omrani, and M. Jucker: Role of Finite-Amplitude Rossby Waves and Nonconservative Processes in the Downward Migration of Extratropical Flow Anomalies, *Journal of the Atmospheric Sciences* (accepted).
* **Huang, C. S. Y.**, and N. Nakamura (2017), Local wave activity budgets of the wintertime Northern Hemisphere: Implication for the Pacific and Atlantic storm tracks, *Geophys. Res. Lett.*, *44*, 5673–5682.
* Nakamura, N., and **C. S. Y. Huang** (2017). Local wave activity and the onset of blocking along a potential vorticity front. *Journal of the Atmospheric Sciences*, *74*(7), 2341-2362
* **Huang, C. S. Y.**, and Nakamura N., 2016: Local Finite-Amplitude Wave Activity as a Diagnostic of Anomalous Weather Events. *Journal of the Atmospheric Sciences*, *73*, 211–229.

**CONFERENCE PRESENTATIONS**

* **“Budgets of finite-amplitude Local Wave Activity in Northern Winter”**Poster presentation at AMS 21th AOFD Meeting 2017, Portland, Oregon. (Jun 2017, substitute presenter: Dr. Sandro Lubis)
* **“Trends and Climatologies of Northern Hemispheric Local Wave Activity and Fluxes in a Warming Climate”**  
  Poster presentation at AGU 2016 Fall Meeting, San Francisco, California. (Dec 2016)
* **“Characterizing Blocking Episodes with Local Finite-amplitude Wave Activity: Lifecycle and Climatology”**  
  Oral presentation at Workshop on Atmospheric Blocking, Reading, United Kingdom. (Apr 2016)
* **“Characterization of Blocking Episodes in the North Atlantic and Pacific with the Finite-Amplitude Local Wave Activity Formalism”**Oral presentation at AGU 2015 Fall Meeting, San Francisco, California. (Dec 2015)
* **“Local Finite-Amplitude Rossby Wave Activity as a Diagnostic of Anomalous Weather Regimes”**  
  Oral presentation at AMS 20th AOFD Meeting 2015, Minneapolis, Minnesota. (Jun 2015)
* **“Local Finite-Amplitude Rossby Wave Activity as a Diagnostics for Wave-Breaking”**  
  Poster presentation at AGU 2014 Fall Meeting, San Francisco, California. (Dec 2014)
* **“Generalize Critical Line and Rossby Wave Breaking”**  
  Poster presentation at AGU 2013 Fall Meeting, San Francisco, California. (Dec 2013)
* **“A Study of Barotropic Decay with Finite-Amplitude Wave Theory”**  
  Poster presentation at AMS 19th AOFD Meeting 2013, Newport, Rhode Island. (Jun 2013)

**SEMINARS**

* **“The Local Finite-Amplitude Rossby Wave Theory: Review, Development and Outlook”**

DAMTP Atmosphere-Ocean Dynamics Series, University of Cambridge, United Kingdom. (Apr 2016)

* **“Local Finite-Amplitude Wave Activity: A Blocking Index”**Earth System Science Seminar, The Chinese University of Hong Kong, Hong Kong. (Sep 2015)  
  School of Energy and Environment Seminar, City University of Hong Kong, Hong Kong. (Sep 2015)
* **“Local Finite-Amplitude Rossby Wave Activity as a Diagnostic of Anomalous Weather Regimes”**  
  Dynamics Seminar, Princeton University, New Jersey. (May 2015)

**PROFESSIONAL SERVICES**

* Organizer of the Rossbypalooza Climate-Statistics Workshop and Hackathon (July 25-29, 2016),   
  University of Chicago (<http://rossbypalooza.org/>)
* Host of Autumn 2014 Climate Journal Club in University of Chicago. (Topic: Climate variability)

**PROGRAMMING SKILLS**

* Proficient: Python, MATLAB, Fortran, Shell Scripting, HTML/CSS
* Experienced: C, C++, R, SQL
* OS: Linux and UNIX, Mac OS X, Windows
* Version Control: Git

**WORKSHOP ATTENDED**

* Workshop on Atmospheric Blocking, Reading, United Kingdom. (Apr 2016)
* NCAR CESM Tutorials, Boulder, CO. (Aug 2015)

**TEACHING EXPERIENCE**

* Natural Hazards (2012-16 Winter), **Head TA** in 2016 Winter.
* Earth as a Planet: Exploring Our Place in the Universe (2015 Autumn)
* The Atmosphere / Atmospheric Chemistry (2012-14 Autumn)
* Global Warming (2011 Autumn)

**GRANTS / AWARDS**

* University Large Request Allocation, NCAR's Computational & Information Systems Laboratory (CISL) (2017)
* Research Computing Center Allocation II (500k SUs), University of Chicago (2016)
* UChicagoGRAD Travel Fund, University of Chicago. (2016)
* AGU Fall Meeting Student Travel Grant, American Geophysical Union. (2015)
* Graduate Council Advanced Travel Fund, University of Chicago. (2015)
* 20th Atmospheric and Oceanic Fluid Dynamics Program Chair Travel Awards,   
  American Meteorological Society. (2015)
* Scholarship for Summer Undergraduate Research Exchange Program (Host: Brown University),   
  The Chinese University of Hong Kong. (2009)