

## CURRICULUM VITAE: Zhenning LI

School of Atmospheric Sciences, Sun Yat-sen University

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### EDUCATION

**09/2014 – Ph.D. Student**

Major in Meteorology, Sun Yat-sen University, Supervisor: Prof. Song Yang

**09/2016 – 09/2017 Visiting Ph.D. Student**

Department of Geography, University of California, Berkeley, Co-Supervisor: Prof. John Chiang

**09/2010 – 06/2014 Bachelor of Science**

Major in Atmospheric Sciences, Sun Yat-sen University, GPA: 4.1/5.0 (Top 5%)

### SKILLS

#### Languages

**Mandarin:** Mother tongue

**English:** Generally fluent, with standardized test scores **TOEFL: 101/120 (R25+L30+S22+W24)**

#### Expertise

Good at the **NCAR CESM** model, with skills in running **prescribed-forcing/nudging/coupling and regional decoupling** experiments which require targeting and modifying the model code; also familiar with the **WRF/HYSPLIT** model, with experience in building a **real-time weather forecasting system**.

Familiar with high performance computing (HPC) environments (e.g. “**Tianhe-2**”) and UNIX/Linux systems, experienced in comprehensive climate model porting and customization over new platforms, knowledge of handling, troubleshooting, and maintaining of hardware and software systems.

Familiar with **FORTRAN, MATLAB, python (numpy/pandas/tensorflow), Linux shell scripts (bash/csh), and NCL**; knowledge of C/C++, PHP, and Visual Basic; basically understand parallel programming (**MPI**). Other computer skills including experience with website building (WordPress/Jekyll), also with experience in **amazon AWS** and certificates in National Computer Rank Examination, both in Grade 2 (Visual Basic), and Grade 3 (Network Technology)

### RESEARCH EXPERIENCES

**07/2014 - 08/2014** Short-term visiting student in the Institute of Atmospheric Physics, Chinese Academy of Sciences

**11/2012 - 11/2013** Leader of the Laboratory Open Fund Project “Automatic All-sky Cloud Cover Observation System” for undergraduate students in Sun Yat-sen University, achievements include an operational webpage and a set of image processing and pattern recognition algorithms for cloud cover detection (mainly in MATLAB, code is available in my [GitHub repo](#)).

### SELECTED CONFERENCES

**11/2017** International Workshop on Tropical-Subtropical Weather, Climate and Oceans, Guangzhou, China, poster presentation

- 01/2017** AMS 97th Annual Meeting, Seattle, USA, poster presentation
- 12/2016** 2016 AGU's Fall Meeting, San Francisco, USA, poster presentation
- 08/2016** AOGS 13th Annual Meeting (AOGS2016), Beijing, oral presentations

### **PROFESSIONAL SERVICE**

- 03/2014 -** Ensuring efficient use of the team's IT facilities, including two Linux data/web servers and two workstations. Maintaining IT aspects of external relationships, including monitoring team's smooth use of data transfer network, three HPC systems (two Linux-based clusters and "Tianhe-2" supercomputer), and connection between collaborating organizations (e.g. National Supercomputer Center in Guangzhou).
- 05/2013 - 06/2013** Student Assistant during the field meteorological observation practice for undergraduate students, responsibilities including providing technical support to automatic meteorological observations and developing a web-based meteorological data distribution system.
- 03/2012 – 06/2014** Working with a teammate to maintain IT services in the Atmospheric Exploration Laboratory, facilities including one Linux server and several Windows workstations (as well as automatic weather station), developing and maintaining internal and public website for weather services.

### **AWARDS**

- 11/2017** First Prize in the poster session of International Workshop on Tropical-Subtropical Weather, Climate and Oceans, Guangzhou, China
- 12/2014** Third Prize in the China Graduate Student Forum on Climate Change, Beijing, China
- 09/2013** China National Scholarship for Undergraduate Students

**PUBLICATIONS**

- He, S., Yang, S., Lu M., and **Li Z.**, 2018. Afro-Eurasian Intermediate-Frequency Teleconnection and Modulation by ENSO. *J. Climate*, 31, 8121–8139, <https://doi.org/10.1175/JCLI-D-18-0130.1>
- Li, Z.**, Yang, S., Hu, X., Dong, W., and He, B., 2018. Charge in Long-lasting El Niño Events by Convection-induced Wind Anomalies over the Western Pacific in Boreal Spring. *J. Climate*, 31(10), pp.3755-3763.
- Yang, S., **Li, Z.**, Yu, J.Y., Hu, X., Dong, W. and He, S., 2018. El Niño–Southern oscillation and its impact in the changing climate. *Natl. Sci. Rev.*, doi: 10.1093/nsr/nwy046.
- Deng, T., Huang, Y., **Li, Z.**, Wang, N., Wang, S., Zou, Y., Yin, C. and Fan, S., 2018. Numerical simulations for the sources apportionment and control strategies of PM<sub>2.5</sub> over Pearl River Delta, China, part II: Vertical distribution and emission reduction strategies. *Sci. Total Environ.*, doi:10.1016/j.scitotenv.2018.04.209.
- Huang, Y., Deng, T., **Li, Z.**, Wang, N., Yin, C., Wang, S. and Fan, S., 2018. Numerical simulations for the sources apportionment and control strategies of PM<sub>2.5</sub> over Pearl River Delta, China, part I: Inventory and PM<sub>2.5</sub> sources apportionment. *Sci. Total Environ.*, doi: 10.1016/j.scitotenv.2018.04.208.
- Jiang, X., Wang, Z. and **Li, Z.**, 2018. Signature of the South China Sea summer monsoon onset on spring-to-summer transition of rainfall in the middle and lower reaches of the Yangtze River basin. *Climate Dyn.*, pp.1-12.
- Lu, M., Yang, S., **Li, Z.**, He, B., He, S. and Wang, Z., 2017. Possible effect of the Tibetan Plateau on the “upstream” climate over West Asia, North Africa, South Europe and the North Atlantic. *Climate Dyn.*, pp.1-14.
- He, S., Yang, S. and **Li, Z.**, 2017. Influence of latent heating over the Asian and western Pacific monsoon region on Sahel summer rainfall. *Sci. Rep.*, 7(1), p.7680.
- Li, Z.** and Yang, S., 2017. Influences of spring-to-summer sea surface temperatures over different Indian Ocean domains on the Asian summer monsoon. *Asia-Pac. J. Atmos. Sci.*, 53(4), pp.471-487.
- Li, Z.**, Yang, S., He, B. and Hu, C., 2016. Intensified springtime deep convection over the South China Sea and the Philippine sea dries Southern China. *Sci. Rep.*, 6, p.30470.
- Hu, C., Yang, S., Wu, Q., **Li, Z.**, Chen, J., Deng, K., Zhang, T., and Zhang, C., 2016. Shifting El Niño inhibits summer Arctic warming and Arctic sea-ice melting over the Canada Basin. *Nat. Comm.*, doi: 10.1038/ncomms11721.
- Hu, C., Wu, Q., Yang, S., Yao, Y., Chan, D., **Li, Z.** and Deng, K., 2016. A Linkage Observed between Austral Autumn Antarctic Oscillation and Preceding Southern Ocean SST Anomalies. *J. Climate*, 29(6), pp.2109-2122.
- He, B., Yang, S. and **Li, Z.**, 2015. Role of atmospheric heating over the South China Sea and western Pacific regions in modulating Asian summer climate under the global warming background. *Climate Dyn.*, 46(9), pp. 2897–2908.