

Higher education qualification

- 2002 - 2005 M.S. in Meteorology, School of Physics, Peking University, Beijing, China. Major: Climatology - East Asia summer monsoon and climate change of China. Supervisor: Prof. Weihong Qian.
- 2002 B.S. majored in dynamic meteorology, School of Atmospheric Science, Lanzhou University, Lanzhou, China.

Degree of Doctor

- 2009 - 2013 Ph.D. (degree earned on March 13th, 2013; defended on February 25th, 2013) at University of Gothenburg, Gothenburg, Sweden. Major: Natural Science, specializing in Physical Geography. Supervisors: Prof. Deliang Chen, Prof. Hans Linderholm and Prof. Jee-Hoon Jeong. Title of the Ph.D. thesis: 'Observed and simulated changes in extreme precipitation and cold surges in China: 1961-2005'.

Postdoctoral positions

- 2015 - 2016 Department of Earth Sciences, University of Gothenburg, Gothenburg, Sweden. Worked on regional climate change with a focus of Sweden.
- 2013 - 2015 Faculty of Earth Systems & Environmental Sciences, Chonnam National University, Gwangju, South Korea. Worked on the impact of changes in the Arctic sea ice on the climate over mid-to-high latitude.

Present position

Principal research engineer (specialized in climate modelling), Department of Earth Sciences, University of Gothenburg, Gothenburg, Sweden. (research time 70%)

Previous positions and periods of appointment

- 2017.08 – Visiting researcher in Pennsylvania State University, State
2017.09 College, USA. Focus on data assimilation using WRF.
- 2007.07 – Visiting scholar in University of Gothenburg, Gothenburg,
2009.02 Sweden. Focus on the link between changes in atmospheric circulation and hydrological cycle and air pollution.
- 2005.07 – Research assistant in National Climate Center, Beijing, China.
2007.06 Focus on statistical downscaling, and seasonal to decadal climate prediction.

International commissions of trust

Referee for International Journal of Climatology; Asia-Pacific Journal of Atmospheric Sciences; Water; Cold Regions Science and Technology; Atmosphere; Sustainability

Member of the Organizing Committee of the International Conference on Regional Climate 2019 (ICRC-CORDEX 2019)

Research Interests

- Regional climate change
- Climate extreme events
- Synoptic climatology
- Land-atmosphere interaction
- Large-scale climate dynamics
- Statistical and dynamical downscaling

Peer Reviewed Publications since 2015

Bibliometric summary 2015-2020 (full publication list can be found at <http://rcg.gvc.gu.se/oth/>)

Tinghai Ou has published 20 peer-reviewed journals and 1 report since 2015. According to Google Scholar (accessed 2020-07-8), his work has been cited 542 times since 2015. In total, he has published 29 peer-reviewed journals, 1 doctoral thesis, and 2 reports. His work has been cited 755 times. His h-index is 14 and the i10 index is 18.

1. Bai, M., Z. Dong, D. Chen, H. Zheng, F. Zhou, X. Cao, **T. Ou**, and K. Fang 2020: Different responses of the radial growth of the planted and natural forests to climate change in humid subtropical China, *Geografiska Annaler: Series A*, Physical Geography, DOI: 10.1080/04353676.2020.1769364.
2. Chen D, F. Zhou, Z. Dong, A. Zeng, **T. Ou**, and K. Fang 2020: A tree-ring $\delta^{18}\text{O}$ based reconstruction of East Asia summer monsoon over the past two centuries. *PLoS ONE* 15(6): e0234421. DOI: 10.1371/journal.pone.0234421.
3. Chen, D., H. Rodhe, K. Emanuel, S. I. Seneviratne, P. Zhai, B. Allard, P. Berg, S. Björck, I. A. Brown, L. Bärring, L. Chafik, K. Deng, M.-J. Gaillard-Lemdahl, M. Hieronymus, E. Kjellström, H. W. Linderholm, W. May, J.-O. Näslund, **T. Ou**, A. Rutgersson, E. Sahlee, F. Schenk, J. Sjolte, M. K. Sporre, A. Stigebrandt, G. A. Weyhenmeyer, P. Zhang, and Q. Zhang, 2020: Summary of a workshop on Extreme Weather Events in a Warming World organized by the Royal Swedish Academy of Sciences. *Tellus B: Chemical and Physical Meteorology*, DOI: 10.1080/16000889.2020.1794236.
4. **Ou, T.**, D. Chen, X. Chen, C. Lin, K. Yang, H.-W. Lai, F. Zhang, 2020: Simulation of summer precipitation diurnal cycles over the Tibetan Plateau at the gray-zone grid spacing for cumulus parameterization. *Climate Dynamics*, DOI: 10.1007/s00382-020-05181-x.
5. Wang, X., D. Chen, G. Pang, **T. Ou**, M. Yang, and M. Wang, 2020: A climatology of surface–air temperature difference over the Tibetan Plateau: Results from multi-source reanalyses. *International Journal of Climatology*, DOI:10.1002/joc.6568.

6. Fang, K., D. Chen, L. Ilvonen, L. Pasanen, L. Holmström, H. Seppä, G. Huang, **T. Ou**, and H. Linderholm, 2019: Oceanic and atmospheric modes in the Pacific and Atlantic Oceans since the Little Ice Age (LIA): towards a synthesis. *Quaternary Science Reviews*, 215, 293-307, DOI:10.1016/j.quascirev.2019.05.014.
7. He, J., F. Zhang, X. Chen, X. Bao, D. Chen, H.-M. Kim, H.-W. Lai, L. R. Leung, X. Ma, Z. Meng, **T. Ou**, Z. Xiao, E.-G. Yang, K. Yang, and L. Zhu, 2019: Development and Evaluation of an Ensemble-based Data Assimilation System for Regional Reanalysis over the Tibetan Plateau and Surrounding Regions. *Journal of Advances in Modeling Earth Systems*, 11, 2503–2522. DOI: 10.1029/2019MS001665.
8. Huang, J., **T. Ou**, D. Chen, Y. Luo, and Z. Zhao, 2019: The amplified Arctic warming in the recent decades may have been overestimated by CMIP5 models. *Geophysical Research Letters*, 46, 13,338–13,345. DOI: 10.1029/2019GL084385.
9. Lin, C., H. Wu, **T. Ou**, and D. Chen, 2019: A new perspective on solar dimming over the Tibetan Plateau. *International Journal of Climatology*, 39: 302-316. DOI: 10.1002/joc.5807.
10. **Ou, T.**, Y. Hu, T. Gustavsson, and J. Bogren, 2019: On the relationship between the risk of hoar frost on roads and a changing climate in Sweden. *International Journal of Climatology*, 39: 2601– 2611. DOI: 10.1002/joc.5974.
11. Fang, K., E. Cook, Z. Guo, D. Chen, **T. Ou**, D. Frank, and Y. Zhao, 2018: Synchronous multi-decadal tree-ring patterns of the Pacific areas reveal dynamics of the Interdecadal Pacific Oscillation (IPO) since 1567. *Environmental Research Letters*, 13 024016, DOI: 10.1088/1748-9326/aa9f74.
12. Hu, Y., **T. Ou**, J. Huang, T. Gustavsson, and J. Bogren, 2018: Winter hoar frost conditions on Swedish roads in a warming climate. *International Journal of Climatology*, DOI: 10.1002/joc.5672.
13. Lin, C., D. Chen, K. Yang, and **T. Ou**, 2018: Impact of model resolution on simulating the water vapor transport through the Himalayas: implication for models' wet bias over the Tibetan Plateau. *Climate Dynamics*, DOI: 10.1007/s00382-018-4074-x.
14. Wang, L., K. Fang, D. Chen, Z. Dong, F. Zhou, Yi. Li, P. Zhang, **T. Ou**, G. Guo, X. Cao, and M. Yu, 2018: Intensified variability of the El Niño–Southern Oscillation enhances its modulations on tree growths in southeastern China over the past 218 years. *International Journal of Climatology*, DOI: 10.1002/joc.5730.
15. Grundström, M., Å. Dahl, **T. Ou**, D. Chen, and H. Pleijel, 2017: The relationship between birch pollen, air pollution and weather types in two Swedish cities. *Aerobiologia*, DOI: 10.1007/s10453-017-9478-2.
16. Lehsten, V., L. Wiik, A. Hannukkala, D. Chen, **T. Ou**, E. Andreasson, E. Liljeroth, Å. Lankinen, and L. Grenville-Briggs, 2017: Earlier occurrence and increased explanatory power of climate for the first incidence of potato late blight caused by *Phytophthora infestans* in Fennoscandia. *PLOS ONE*, 12(5): e0177580, DOI: 10.1371/journal.pone.0177580.
17. Xu, J., Y. Gao, D. Chen, L. Xiao, and **T. Ou**, 2017: Evaluation of Global Climate Models for downscaling applications centered over the Tibetan Plateau. *International Journal of Climatology*, 37: 657–671, DOI: 10.1002/joc.4731.

18. Chen, D. Y. Tian, T. Yao, and **T. Ou**, 2016: Satellite measurements reveal strong anisotropy in spatial coherence of climate variations over the Tibet Plateau. ***Scientific Reports***, 6:30304, DOI: 10.1038/srep30304.
19. Su, F., L. Zhang, **T. Ou**, D. Chen, T. Yao, and K. Tong, 2016: Hydrological response to future climate changes for the major upstream river basins in the Tibetan Plateau, ***Global and Planetary Change***, 136, 82-95, DOI: 10.1016/j.gloplacha.2015.10.012.
20. **Ou, T.**, D. Chen, J.-H. Jeong, H. W. Linderholm, and T. Zhou, 2015: Changes in winter cold surges over Southeast China: 1961 to 2012, ***Asia-Pacific Journal of Atmospheric Sciences***, DOI: 10.1007/s13143-014-0057-y.

Selected research grants awarded in competition

- Participating in WCRP-CORDEX Flagship Pilot Study (FPS) "**High resolution climate modelling with a focus on mesoscale convective systems and associated precipitation over the Third Pole region**" (CORDEX-FPS: CPTP, 2020-2024)
- Co-leading project "**Climate change and its impacts on hydrology and water resources in the Yangtze and Mekong River basins**" supported by STINT (2020-2022).
- Co-leading project "**High resolution climate modelling with a focus on convection and associated precipitation over the Third Pole region**" supported by the Swedish National Supercomputer Centre (2020).
- Participating in project "**S-CMIP: Swedish climate research and contributions to the sixth International Coupled Model Intercomparison Project (CMIP6)**" supported by the Swedish National Supercomputer Centre, phase 3-6 (2017-2020).
- Led project "**Droughts and wildfires in Sweden: past variation and future projection**" (Swedish title: Torka och skogsbränder i Sverige - tidigare variation och framtida projektion, project site in Swedish), supported by Swedish Civil Contingencies Agency (MSB: Myndigheten för samhällsskydd och beredskap) (2015-2017).

Invited talks

- "**Hydrological extreme changes in the 21st century for five headwater river basins in the Tibetan Plateau**", the Third Pole Science Summit (TPSS), 10-12 July 2017, Kunming, China.
- "**Interdecadal changes in autumn snow cover over Eurasia: 1967 to 2012**", 5 May, 2014, ESS seminar, University of Gothenburg, Gothenburg, Sweden.

International Conference Presentations

- "**Simulated diurnal cycle of summer precipitation over the Tibetan Plateau at gray-zone grid spacing**", International Conference on Regional Climate-CORDEX 2019 (ICRC-CORDEX 2019), 14th-18th October 2019, Beijing, China.
- "**Interdecadal changes in snow cover over Eurasia: 1967 to 2012**", EGU General Assembly 2014, 27 April - 02 May, 2014, Austria, Vienna.

- **“Influences of Arctic sea ice variability on the summer North Atlantic Oscillation (SNAO)”**, 19th International Symposium on Polar Sciences, 16-18 October, 2013, in Korea Polar Research Institute, Incheon, Republic of Korea.
- **“Performance of climate models on simulation of extreme precipitation in China”**, AGU Fall Meeting, 5-9 December 2011, in San Francisco, California, USA.

Interruptions in research

- 2019-07-10 – 2019-08-11 parental leave
- 2017-11-01 – 2017-12-01 parental leave
- 2016-11-01 – 2016-12-01 parental leave
- 2016-05-15 – 2016-06-15 paternity leave