CURRICULUM VITAE

PERSONAL INFORMATION

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Name	Sifang Feng
Date of Birth	May 29, 1997
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EDUCATION

Beijing Normal University — **Beijing, China**
Since 09/2021

Ph.D. of Hydraulic engineering

- Supervisor: Prof. Fanghua Hao and Prof. Zengchao Hao
- Thesis title: Linkages, attribution and projection among compound hot-dry events

Helmholtz-Centre for Environmental Research (UFZ) — **Leipzig, Germany**
10/2022 – 03/ 2024

Visiting Student

- Supervisor: Prof. Jakob Zscheischler and Dr. Emanuele Bevacqua
- Research topic: Spatial dependence between crop production

Beijing Normal University — **Beijing, China**
09/2018 – 06/ 2021

Master of Hydraulic engineering

- Supervisor: Prof. Zengchao Hao
- Thesis title: Variations of compound dry-hot events and impacts on global crop yields

Sichuan Agricultural University — **Sichuan, China**
09/2014 – 06/2018

Bachelor of Water Resources and Hydropower Engineering

- GPA: 90.1/100; Overall Rank: 2/188

AREA OF INTEREST

- Characteristic, attribution, and projection of high-impact extremes (e.g., wildfire, co-occurrent crop failure)
- Impact (e.g., crop loss) and physical drivers (e.g., ENSO) of compound climate extremes
- Evaluation and uncertainty of climate models (CMIP6) and impact models (e.g., crop models from ISIMIP)
- Large ensemble climate model simulations (SMILES)

PUBLICATIONS

First author (10)

- **Feng, S.**, Zscheischler, J., Hao, Z., & Bevacqua, E. (2024) Growing human-induced climate change footprint in regional weekly fire extremes. *(Submitted to Climate and Atmospheric Science)*

- **Feng, S.**, Zscheischler, J., Hao, Z., Jägermeyr, J., Müller, C. & Bevacqua, E. (2023). The correlation between crop production of major breadbaskets has little influence on extremely low global crop production in crop simulations. ***Agricultural and Forest Meteorology***. *(Under review)*
- **Feng, S.**, Hao, Z., Zhang, Y., Zhang, X., & Hao, F. (2023). Amplified future risk of compound droughts and hot events from a hydrological perspective. ***Journal of Hydrology***, 617, 129143.
- **Feng, S.**, Hao, Z., Zhang, X., Wu, L., Zhang, Y., & Hao, F. (2022). Climate change impacts on concurrences of hydrological droughts and high temperature extremes in a semi-arid river basin of China. ***Journal of Arid Environments***, 202, 104768.
- **Feng, S.**, Hao, Z., Wu, X., Zhang, X., & Hao, F. (2021). A multi-index evaluation of changes in compound dry and hot events of global maize areas. ***Journal of Hydrology***, 602, 126728. (cited by Nature communications)
- **Feng, S.**, & Hao, Z. (2021). Quantitative contribution of ENSO to precipitation-temperature dependence and associated compound dry and hot events. ***Atmospheric Research***, 260, 105695.
- **Feng, S.**, Hao, Z., Zhang, X., & Hao, F. (2021). Changes in climate-crop yield relationships affect risks of crop yield reduction. ***Agricultural and Forest Meteorology,*** 304, 108401.
- **Feng, S.**, Wu, X., Hao, Z., Hao, Y., Zhang, X., & Hao, F. (2020). A database for characteristics and variations of global compound dry and hot events. ***Weather and Climate Extremes***, 30, 100299. (cited by Science Advance; Nature communications)
- **Feng, S.**, & Hao, Z. (2020). Quantifying likelihoods of extreme occurrences causing maize yield reduction at the global scale. ***Science of the Total Environment***, 704, 135250. (cited by Nature Food)
- **Feng, S.**, Hao, Z., Zhang, X., & Hao, F. (2019). Probabilistic evaluation of the impact of compound dry-hot events on global maize yields. ***Science of the total environment***, 689, 1228-1234. (cited by Nature Reviews Earth and Environment; Nature communications)

Co-author (13)

- Meng, Y., Hao, Z., Zhang, Y., & **Feng, S.** (2023). The 2022-like compound dry and hot extreme in the Northern Hemisphere: Extremeness, attribution, and projection. ***Atmospheric Research***, 295, 107009
- Hao, Z., Chen, Y., **Feng, S.**, Liao, Z., An, N., & Li, P. (2023). The 2022 Sichuan-Chongqing spatio-temporally compound extremes: a bitter taste of novel hazards. ***Science Bulletin***, 68(13), 1337-1339.
- Zhang, Y., Hao, Z., **Feng, S.**, Zhang, X., & Hao, F. (2023). Changed relationship between compound dry-hot events and ENSO at the global scale. ***Journal of Hydrology***, 621, 129559.
- Zhang, Y., Hao, Z., **Feng, S.**, Zhang, X., & Hao, F. (2022). Comparisons of changes in compound dry and hot events in China based on different drought indicators. ***International Journal of Climatology***, 42(16), 8133-8145.
- Hao, Z., Hao, F., Xia, Y., **Feng, S.**, Sun, C., Zhang, X., ... & Meng, Y. (2022). Compound droughts and hot extremes: Characteristics, drivers, changes, and impacts. ***Earth-Science Reviews***, 235, 104241.
- Meng, Y., Hao, Z., **Feng, S.**, Guo, Q., & Zhang, Y. (2022). Multivariate bias corrections of CMIP6 model simulations of compound dry and hot events across China. ***Environmental Research Letters***, 17(10), 104005.
- Zhang, Y., Hao, Z., **Feng, S.**, Zhang, X., & Hao, F. (2022). Changes and driving factors of compound agricultural droughts and hot events in eastern China. ***Agricultural Water Management***, 263, 107485.
- Meng, Y., Hao, Z., **Feng, S.**, Zhang, X., & Hao, F. (2022). Increase in compound dry-warm and wet-warm events under global warming in CMIP6 models. ***Global and Planetary Change***, 210, 103773.
- Hao, Y., Hao, Z., **Feng, S.**, Wu, X., Zhang, X., & Hao, F. (2021). Categorical prediction of compound dry and hot events in northeast China based on large-scale climate signals. ***Journal of Hydrology***, 602, 126729.

- Wu, X., Hao, Z., Tang, Q., Zhang, X., **Feng, S.**, & Hao, F. (2021). Population exposure to compound dry and hot events in China under 1.5 and 2 C global warming. ***International Journal of Climatology***, 41(12), 5766-5775.
- Zhang, Y., Hao, Z., **Feng, S.**, Zhang, X., Xu, Y., & Hao, F. (2021). Agricultural drought prediction in China based on drought propagation and large-scale drivers. ***Agricultural Water Management,*** 255, 107028.
- Hao, Y., Hao, Z., Fu, Y., **Feng, S.**, Zhang, X., Wu, X., & Hao, F. (2021). Probabilistic assessments of the impacts of compound dry and hot events on global vegetation during growing seasons. ***Environmental Research Letters***, 16(7), 074055.
- Hao, Y., Hao, Z., **Feng, S.**, Zhang, X., & Hao, F. (2020). Response of vegetation to El Niño-Southern Oscillation (ENSO) via compound dry and hot events in southern Africa. ***Global and Planetary Change***, 195, 103358.

SUMMER SCHOOL & WORKSHOP & CONFERENCE

Summer school

- 21st SWISS CLIMATE SUMMER SCHOOL, 2023/09, Monte Verità, Ascona, Switzerland, **CLIMATE-WATER-ENERGY-FOOD-NEXUS**

Workshop

- ISIMIP, 2023/05, Prague, Czech Republic, **Interdependence among subregional crop production affects global crop failure risk**, Poster
- AgMIP, 2023/05, New York, United States, **Interdependence among subregional crop production affects global crop failure risk**, Oral

Conference organization

- The 4th Hydro90 Hydrology Youth Symposium, 2024/06, Online, **Physical drivers and risks of compound extreme events**, Main convener
- The 3rd Hydro90 Hydrology Youth Symposium, 2023/06, Online, **Definition, simulation and impact of compound extreme climate events**, Main convener
- The 2nd Hydro90 Hydrology Youth Symposium, 2022/05, Online, **Evolution, impact and mechanism of compound extreme climate events**, Main convener
- The 1st Hydro90 Hydrology Youth Symposium, 2021/05, Online, **Agricultural Hydrology and Food Security under Climate Change**, Main convener

Presentation

- EGU, 2023/04, Vienna, Austria, **Interdependence among subregional crop production affects global crop failure risk. (**Oral**)**
- EGU, 2022/05, Vienna, Austria, **Linkage among different compound drought-hot events at a global scale. (**Oral**)**
- Beijing Normal University, 2022/06, Online, **How to use probability theory as a stepping stone for interdisciplinary research. (**Invited oral**)**
- Tsinghua University, 2022/05, Online, **Data Visualization. (**Invited oral**)**
- The 10th CAS/THU Hydrology and Water Resource Symposium, 2022/01, Beijing, China, **Nonlinear response of crop yield to compound dry-hot events. (**Oral**)**

- The First Hydro90 Hydrology Youth Symposium, 2021/05, Online, **Statistical modeling of climate extremes and crop yields at the global scale. (**Oral**)**
- EGU, 2021/04, Vienna, Austria, **Uncertainties in the variation of compound dry and hot events due to differences in drought indices. (**Oral**)**
- The 10th International Workshop on Statistical Hydrology, 2019/10, Nanjing, China, **Statistical modeling of climate extremes and crop yields at the global scale. (**Oral**)**
- AGU, 2019/10, San Francisco, United States, **Quantifying likelihoods of extreme occurrences causing maize yield reduction at the global scale**. (Poster)

GRANTS/SCHOLARSHIPS & HONORD/AWARDS

Ph.D.

First-Class Beijing Normal University scholarship (18,000 CNY)	2023
China Scholarship Council Joint Ph.D. Program (24,300 EUR)	2022.10-2024.04
Second-Class for Academic Innovation of Beijing Normal University (5,000 CNY)	2022
Liu Changming Scholarship (4 winners a year; 5,000 CNY)	2022
First-Class Beijing Normal University scholarship (10,000 CNY)	2022
First Prize for Academic Innovation of Beijing Normal University (10,000 CNY)	2021
China National Scholarship (Top 0.2%; 30,000 CNY)	2021
Doctoral Freshman Special Scholarship (Top 5%; 110,000 CNY)	2021

Master

Outstanding Graduate of Beijing Normal University (Top 10%)	2021
Outstanding Graduate of Beijing City (Top 5%)	2021
First-Class Beijing Normal University scholarship (10,000 CNY)	2020
First-Class Beijing Normal University scholarship (10,000 CNY)	2019
Graduate Freshman Scholarship of Beijing Normal University	2018

Bachelor

China National Scholarship (Top 0.2%; 8,000 CNY)	2017

SKILLS

Language	Mandarin (native) and English (working proficiency)
Programming	Python, R, MATLAB, Supercomputers, Linux, ArcGIS, CDO
Physical Models	Variable Infiltration Capacity (VIC) model
Statistical Tools	Multivariate statistics (e.g., Vine copula); Logistic regression; Optimal Fingerprinting
Sports	Bouldering, Chess, Orienteering, Running/Roller skating marathon, Swimming