# TIANMEI WANG

Ph.D. Candidate, Department of Earth System Science, Stanford University

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## EDUCATION

**Stanford University** Sep. 2017 - present
*Ph.D. in Earth System Science* *Advisor: Prof. Scott Fendorf*

*Dissertation*: Unraveling and Predicting the Coupled Impacts of Climate Change and Soil Arsenic on Rice Yield and Grain Quality

**Stanford University** Sep. 2015 - June 2017
*M.S. in Environmental Science and Engineering*

**Shanghai Jiao Tong University** Sep. 2011 - July 2015
*B.S.E. in Environmental Science and Engineering*

*Thesis*: Factors Influencing the Fate and Transformation of C60 Nanocrystallines in Aqueous System

**Technical University of Munich** Oct. 2013 - March 2014
*Exchange student with DAAD scholarship, Civil Engineering*

## HONORS AND AWARDS

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| 1st place in student oral competition, 2021 ASA,CSSA,SSSA International Annual Meeting | 2021 |
| Stanford King Center on Global Development Graduate Student Fellowship | 2021-2022 |
| Data Science for All (DS4A) Fellowship by Correlation One | 2021 |
| Rising Environmental Leaders Program, Stanford Woods Institute | 2021 |
| Stanford Earth Certificate for Outstanding Mentoring | 2020 |
| Stanford Big Earth Data Hackathon, Second Prize, Best use of Planet Data [project] | 2018 |
| National Scholarship (the Ministry of Education, China) | 2013 |
| Kontaktstipendium (DAAD Scholarship for International Exchange Student) | 2013 |

## PUBLICATIONS

### PEER-REVIEWED JOURNAL

2. **Wang, T.**, Muehe, E.M., Jin, Z., Yin, Z., Fendorf, S. "Disproportionate nonlinear impact of coupled heat stress and soil arsenic on rice yields." , in prep.
1. Muehe, E.M.,**Wang, T.**, Kerl, C., Planer-Friedrich, B., Fendorf, S. "Rice production threatened by coupled stresses of climate and soil arsenic." *Nat.Commun.*, **10**, 1–10 (2019). [pdf]
Coverage: Top 50 read articles in *Nat Commun.*, Stanford News

## GRANT AWARDED

| | |
|---|---|
| 5. McGee Grant, **$3100** | 2020 |
| 4. Shell Fund Research Grant, **$625** | 2019 |
| 3. Stanford Earth Summer Undergraduate Research Program(SESUR), **$7500** (as mentor) | 2018, 2019, 2020 |

2. Stanford King Center on Global Development Graduate Student Research Funding, **PI-$24943**, "Coupled Effects of Climate and Soil Arsenic on Rice Yield and Quality in China" [link] [news] 2018

1. Kontaktstipendium, scholarship for exchange student from the German Academic Exchange Service (DAAD), **€3000** ($\sim$ $4000) 2013

## CONFERENCE PRESENTATIONS

7. **Wang, T.**, E.M. Muehe and S.E. Fendorf, "Disproportionate Nonlinear Impact of Coupled Heat Stress and Soil Arsenic on Rice Yields" 2021 ASA,CSSA,SSSA International Annual Meeting, Salt Lake City, UT (oral), 1st place in student oral competition

6. **Wang, T.**, E.M. Muehe and S. Fendorf, "Diminished Rice Yield by Coupled Impact of Climate Change and Soil Arsenic Contamination" 2020 Goldschmidt Conference (oral)

5. **Wang, T.**, E.M. Muehe and S.E. Fendorf, "Climate Change Couples with Soil Arsenic to Exacerbate Diminished Rice Yields" 2019 American Geophysical Union Fall Meeting, San Francisco, CA (oral)

4. Jain R.*, A. Hamann, **T. Wang**, and S.E. Fendorf, "Effect of Arsenic Coupled with Climate Change on Rice Yield and Grain Quality" 2019 American Geophysical Union Fall Meeting, San Francisco, CA (poster)

3. **Wang, T.**, E.M. Muehe and S.E. Fendorf, "Coupled Climatic and Soil Arsenic Stressors Threaten Future Rice Yields" 2018 American Geophysical Union Fall Meeting, Washington D.C. (poster)

2. **Wang, T.**, M. Plaganas, E.M. Muehe and S.E. Fendorf, "Productivity of Rice Grown on Arsenic Contaminated Soil under a Changing Climate" 2016 American Geophysical Union Fall Meeting, San Francisco, CA (poster)

1. Plaganas M.*,**T. Wang**, E.M. Muehe and S.E. Fendorf, "Pore Water Arsenic Dynamics in Rice Paddies Under Projected Future Climates" 2016 American Geophysical Union Fall Meeting, San Francisco, CA (poster)
(* denotes student mentee)

## PROFESSIONAL SERVICE

Referee for: *Environmental Pollution, Soil Systems, Science of the Total Environment, Plos One*

## TEACHING EXPERIENCE

Teaching Assistant for courses:

ESS 233: Mitigating Climate Change through Soil Management 2021 Winter

ESS 155/255: Science of Soils 2021 Spring, 2022 Spring

## MENTORING, LEADERSHIP & OUTREACH

**Research lead for Documentary Film: Grounded** 2020 Dec. -present

- Lead a group of 10 people to conduct research for the feature-length documentary on the impact and possible solutions of climate change on future agriculture and food systems

**Undergraduate and High School Student Research Mentor** 2016 - present

- Stanford King Center Undergraduate Research Program
Sofia Epifantseva (2022)
- Stanford Earth Summer Undergraduate Research Program (SESUR)
Hyunseok Hwang (2018), Olivia Kline (2019)

- Stanford Summer Undergraduate Research in Geoscience and Engineering Program (SURGE)
  Mariejo Plaganas (2016), Marcus Hill (2018), Valeria Nava (2019)
- Stanford Earth Young Investigators (High School Student Research Internship Program)
  Sindhu Goli (2018), Rishi Jain(2019)

**Student Mentor for First Year Graduate Student in Department of Earth System Science** 2018 - 2019

**Research Chair for Stanford American Society of Civil Engineers (ASCE) Student Chapter** 2015 - 2016
Promote research interest in undergraduate and graduate student; connect students to faculties; advise CEE undergraduate student on course selection and internship application; invite industry partners for seminars and recruiting

**Zero-waste Volunteer at Peninsula Sanitary Service Inc.(PSSI)/ Stanford Recycling Center** 2015 - 2016
Assess efficiency of desk-side trash bin program through waste audit; facilitate more installation of compost bins in Stanford buildings; outreach to primary school students for trash classification and sustainable lifestyle; help promote trash recycle rate at Stanford in RecycleMania competition.

## MENTORING RELATED WORKSHOPS

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| Workshop by Stanford Earth "How to be a great research mentor" | 2018 & 2019 |
| Workshop by VPGE "Managing Up: How to Build Relationships" | 2018 |
| Stanford Graduate Summer Institute (SGSI) "Public Policy Negotiation and Decision-Making" | 2016 |

## WORKSHOP AND CERTIFICATION

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| Wilderness First Aid Certificate by Stanford Medicine | 2021 |
| "Enahncing STEM Education with Drones" Embry-Riddle Aeronautical University MOOC | 2020 |
| FAA Part 107 Remote Pilot Certificate | 2019 |
| UC ANR DroneCamp | 2019 |
| E.I.T.Engineer in Training, Board for Professional Engineers, Land Surveyors, and Geologists | 2017 |