

# Shuang Song

Ph.D. candidate in Physical Geography, Beijing Normal University, China.



## Basic information

**Name:** Shuang Song  
**Birth:** December 24th 1996  
**Nationality:** China  
**Institution:** Beijing Normal University

## Address

No.19, Xijiekouwai St. Haidian District, Beijing, China, 100875

## Research Experiences

Water Resources Management  
Human-water relationship  
Social-ecological systems  
Complex system modelling  
Socio-hydrology

## PROGRAMMING

Python ● ● ● ● ● ● ● ● ● ●  
Shell ● ● ● ● ● ● ● ● ● ●  
LaTeX ● ● ● ● ● ● ● ● ● ●  
Matlab ● ● ● ● ● ● ● ● ● ●  
R ● ● ● ● ● ● ● ● ● ●

## LANGUAGES

Chinese | mother tongue  
English ● ● ● ● ● ● ● ● ● ●

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## RESEARCH DESCRIPTIONS

Mr. Shuang Song is a Ph.D. candidate at the State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University. His ongoing Ph.D. projects include quantitative analyses of human activities' impact on water resources and socio-hydrological systems modeling. His work also includes integrated geography and landscape ecology.

## EDUCATIONAL BACKGROUND

- 2018–now **Ph.D. Candidate in Geography**  
BEIJING NORMAL UNIVERSITY · Beijing, China ●  
**Representative Courses:** Agent-based modelling, Complex network analysis, Big data in Geography Analysis, Research Methods of Environmental Evolution, Higher Economic Geography, et al.  
**GPA: 3.7 / 5 [Supervisor: Prof. Dr. Shuai Wang Prof. Dr. Bojie Fu].**
- 2014–2018 **B.S. of Science, Physical Geography & History Study (The second major)**  
SUN YAT-SEN UNIVERSITY · Guangzhou, China ●  
**Representative Courses:** Hydrology, Physical Geography, Histocial Geography, et al.  
**Dissertation titled:** "Testing of Human-Flood Model: Taking floodplain of the Yellow River in Ningxia as an exapmle."  
**GPA: 3.7 / 5 [Supervisor: Prof. Dr. Yuxiang Dong].**

## CURRENT PROJECTS

>> MORE

- 2018–now **Yellow River Basin's Human-water relationship modelling**  
CORE MEMBER · Beijing Normal University ●  
**Abstract:** My Ph.D. dissertation titled "Evolution of human-water relationship and its mechanism in the Yellow River Basin". Here, I'm working on an Agent-Based Model to emulate the evolution of human-water relationship in the Yellow River Basin, China.
- 2017–2020 **Socio-hydrology and sustainability of the Yellow River, China**  
CORE MEMBER · Beijing Normal University ●  
**Abstract:** Participated in the finished program as a core member. I improved a classical socio-hydrological system dynamics model by coupling a social module. Furthermore, I quantitatively analyzed the regime shift of sediment transport for the past 2000 years in the Yellow River Basin, China, and attributed it to human activities.

## ACADEMIC PUBLICATIONS

>> MORE

- 2021 **Shuang Song** et al., Decreased Virtual Water Outflows from the Yellow River Basin Are Increasingly Critical to China. *Hydrology and Earth System Science (IF=5.748), Q1, openly discussing.* 🏛️
- 2021 **Shuang Song** et al., Improving representation of collective memory in socio-hydrological models and new insights into flood risk management. *Journal of Flood Risk Management (IF=3.884), Q2.* 🏛️
- 2021 **Shuang Song** et al., The responses of *Spinifex littoreus* to sand burial on the coastal area of Pingtan Island, Fujian Province, South China. *Écoscience (IF=1.950), Q4.* 🏛️
- 2020 Shuai Wang, **Shuang Song** et al., Achieving a Fit between Social and Ecological Systems in Drylands for Sustainability *Current Opinion in Environmental Sustainability (IF=6.984), Q2.* 🏛️
- 2020 **Shuang Song** et al., Sediment transport under increasing anthropogenic stress: Regime shifts within the Yellow River, China. *Ambio (IF=5.129), Q2.* 🏛️
- 2019 **Shuang Song** et al., Study on adaptive governance of social-ecological system: Progress and prospect *Acta Geographica Sinica (IF=7.204), in Chinese.* 🏛️

## AWARDS

- 2020 **Chinese National Scholarship** Beijing Normal University 🏛️
- 2019 **Academic Presentation: 1st & most popular** Beijing Normal University 🏛️
- 2018 **Excellent Graduation Thesis** Sun Yat-Sen University 🏛️
- 2017 **Chinese National Scholarship** Sun Yat-Sen University 🏛️
- 2016 **Chinese National University Geographic Science Presentation: Leader & 1st & Most Innovative award.** Geographical Society of China 🏛️

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🌐 More information accessible at Research Gate