# Tian ZHAO

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### **EDUCATION**

**B.Sc., Geographical Science, Nanjing University** (Outstanding Graduate)

**June 2017** 

- Minor: Oceanographic Science
- Thesis: "<u>A Numerical Experiment on Tide-induced Sediment Transport Capacity Based on Process Analysis</u>." (with abstract in English)
- Mentored by Assoc. Prof. Oian YU (NJU) and Prof. Shu GAO (ECNU & NJU).
- GPA: 4.47/5 (89.4/100, 3.55/4)
- Relevant coursework: Geomorphology, Hydraulics, Physical Oceanography, Marine Biology, Marine Chemistry, Cartography and Surveying, Geographic Modeling, Experiments in Physical Geography, GIS Technology and Application, Marine Sediment Dynamics, Coastal Ocean Hydrodynamics

#### RESEARCH EXPERIENCE

**Research Assistant** 

September 2015 - Present

- MOE Key Laboratory for Coast and Island Development, Nanjing University
- Advisers: Prof. Shu GAO, Prof. Ya Ping WANG, and Assoc. Prof. Qian YU
- Projects: (for details, see <a href="https://tonytianzhao.github.io/research.html#projects">https://tonytianzhao.github.io/research.html#projects</a>)

### Numerical modeling of sediment transport capacity in shallow coastal seas

- Prepared a course report in *Marine Sediment Dynamics* on the classification of previous current-induced sediment carrying capacity formulae
- Built models in C language for cohesive and non-cohesive sediments accordingly
- Statistical analyses and *in-situ* observational verification for model-derived formulae in Origin and SPSS
- Result presenting: B.Sc. thesis, conference presentation, and two journal manuscripts in progress

# **CONFERENCE PRESENTATION**

Zhao, T., Yu, Q., Gao, S., 2017. <u>A Process-based Tide-induced Sediment Transport Capacity Formula</u>.
Oral Presentation, ECSA 2017 Where Land Meets Ocean: The Vulnerable Interface, 16-20 October 2017, Shanghai, China.

## FIELDWORK PARTICIPATION

- *In situ* sediment transport observation in South Yellow Sea, August 2016, participating undergraduate student.
  - Collected 165 bottles of water sample for SSC-profile study, set up the observation platform with the team, and participated in LISST, ADV, ADCP, OBS, RBR measurements.
- **Geological excursion in the Western Alps**, July 2016, team leader.
  - A 10-day English-based geological excursion in collaboration with Université d'Orléans.
  - 40 stops of observation regarding sedimentology, stratigraphy, lithology and tectonics.

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- Prepared presentation materials and slides for the team, on the topic of Foehn.
- Interview: http://www.nju.edu.cn/EN/80/a7/c4662a164007/page.htm
- **Coral-reef dynamics study**, January 2016, participating undergraduate student.
  - Positioned 26 stops of study, studied the lagoon environment, sand spits, coastal dunes, ripples, wave-cut platforms, mangroves, a volcanic coast, coral-reef dynamics and DJI-drone operation, around Hainan Island, China.
- **Practice of geographical sciences in Lushan Mountain**, September 2015, team leader and GPS-based navigator.
  - Personal work: Positioned 29 stops, collected meteorological data of 2 stops, surveyed 4 strata, 5 folds, 3 faults, 2 slides, 3 reservoirs and the Poyang Lake. Studied 4 typical kinds of cultural landscapes. Mapped the northern part of Lushan Mountain in a set of 6 feature-based maps in ArcGIS. Finished a report on this practice.
  - Team work: Studied 110 typical plant species and ecological succession, 6 kinds of typical soil. Measured pH, temperature, electrical conductivity, ammonia nitrogen, dissolved oxygen and flow velocity of Changchong River. Built a model of Lushan Church in SketchUp.
- **Bio-geomorphological study of** *Spartina alterniflora* **saltmarshes**, July-August 2015, participating undergraduate student and GPS-based navigator.
  - Positioned 5 profiles and 25 stops for study, photographed, counted and sampled 125 quadrats of soil and plant in *Spartina alterniflora* saltmarshes near Rudong, China.
- Saltmarsh cliff stability study, May 2015, participating undergraduate student.
  - Set up a RTK base station, measured 1 of 5 mudflat profiles, sampled 20 of 110 bags of surface sediment in a *Spartina alterniflora* saltmarsh near Yancheng, China.
- **Practice of General Geology**, July 2014, group leader.
  - Surveyed 18 strata, 2 folds, 2 faults, a dead volcano, a spring, and various types of rock in Jiangsu Province, China.

### **AWARDS, HONORS & SERVICE**

•	Outstanding Graduate of Nanjing University (Top 10%)	2017
•	Excellent Student of Nanjing University (Top 5%)	2015
•	Liao's Scholarship, Nanjing University (20 Awardees)	2015
•	People's Scholarship (First Grade), Nanjing University (Top 5%)	2014
•	Class Monitor of Geographical Science 2013	September 2014 – 2017
•	Teaching Assistant of <i>Marine Sediment Dynamics</i> (Graduate course)	Spring 2017

#### **SKILLS**

- Laboratory: grain-size analysis, elemental analysis
- Instrument: Garmin GPS, RTK, total station, LISST, ADV, ADCP, OBS, RBR, ALEC EM
- Software: C, ArcGIS, ERDAS IMAGINE, ENVI, SPSS, Origin, SketchUp
- Language: Chinese (native), English (fluent)

### STANDARDIZED EXAMS

•	TOEFL: 109/120 (Reading 28, Listening 28, Speaking 26, Writing 27)	Oct 29, 2016
•	GRE: Verbal 152 (55%), Quantitative 170 (97%), Analytical Writing 3.5 (42%)	May 8, 2016
•	Verbal 158 (~77%), Quantitative 170 (~97%), AW not available (unofficial)	Nov 5, 2017

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