

Curriculum Vitae

PERSONAL DETAILS

Name: Lu Zhou

Sex: Female

Date of Birth: 28th March 1993

Nationality: China

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EDUCATION

Tsinghua University

Beijing, China

Ph.D. in Earth System Science

2015 ~ 2020 (*Expected*)

Topic: Sea Ice Parameter Retrieval with Satellite Data Synergy

Nanjing University of Information Science & Technology

Nanjing, China

B.A. in Atmospheric Science

2011 ~ 2015

GPA: 3.93, **Rank:** 5-th of 360

RESEARCH EXPERIENCE

Graduate research (advisor: professor Shiming Xu)

Sep 2015 – present

Department of Earth System Science, Tsinghua University

- Design of retrieval algorithms for sea ice and snow parameters through satellite data synergy, and basin-scale retrieval studies
- Arctic sea ice and climate change study using observational, modeling and reanalysis data

Graduate research group (with Ruyan Chen and Mingcheng Wang)

Dec 2015 – Feb 2016

Department of Earth System Science, Tsinghua University

- Impact of sea surface temperature and surface heat flux on the development of midlatitude cyclones with numerical simulation with WRF model

Undergraduate research assistant (advisor: Dr. Daili Qian)

Sep 2014 – Nov 2014

Department of Atmospheric Science, Nanjing University of Information Science & Technology

- Comparative study and projection of historical and future weather systems and weather patterns with numerical prediction products from ECMWF, JMA and CMA (T639).

Undergraduate research assistant (advisor: Dr. Jia Liang)

Apr 2014 – Jun 2014

Department of Atmospheric Science, Nanjing University of Information Science & Technology

- Sensitivity of modeled track and central pressure of typhoon *Bilis* to parameterization schemes with WRF model

RELEVANT EXPERIENCE

Research assistant

Jul 2017 – Aug 2017

Shanghai Climate Center, Shanghai Meteorological Bureau

- Status-quo and changes of wind and wind energy in Shanghai with 150 years' observational station data

Research assistant

Dec 2014 – Feb 2015

Meteorological Bureau of Jiangning District, Nanning

- Daily synoptic circulation operational discussion for the determination of major influence systems and local weather physical quantity features

Research assistant

Jul 2013 – Jul 2013

Meteorological Bureau, Hebei Province

- Meteorological disaster prevention & mitigation and shelter engineering and improvements to early warning system in the countryside

TEACHING EXPERIENCE

Teaching Assistant, Introduction to Fortran

Oct 2014 – Jan 2015

Nanjing University of Information Science & Technology

- Course assessment design and evaluation for 40 freshmen students
- Computer training by collaboration with advisor

Teaching Assistant, Practice to atmospheric integrated observation

Sep 2013 – Nov 2014

Nanjing University of Information Science & Technology

- Tutoring of atmospheric observation equipment usage to sophomore and junior students
- Professional touring guide to undergraduate, high-school and middle-school students

HONORS

2015 Excellent graduation thesis of Jiangsu Province

2015 Outstanding Graduates, Nanjing University of Information Science & Technology

2013 & 2014 Presidential scholarship, Nanjing University of Information Science & Technology

PUBLICATIONS

- **Lu Zhou**, Shiming Xu*, Jiping Liu and Bin Wang. 2018. *On the Retrieval of Sea Ice Thickness and Snow Depth using Concurrent Laser Altimetry and L-Band Remote Sensing Data*, *The Cryosphere*, 12, 993–1012 (**Highlight Article**).
- Shiming Xu*, **Lu Zhou**, Jiping Liu, Hui Lu and Bin Wang. 2017. *Data synergy between altimetry and L-band passive microwave remote sensing for the retrieval of sea ice parameters – a theoretical study of methodology*, *Remote Sensing*, 9(10):1079.
- **Lu Zhou**, Shiming Xu*, Jiping Liu, Hui Lu and Bin Wang. 2017. *Improving L-band radiation model and representation of small-scale variability to simulate brightness temperature of sea ice*, *International Journal of Remote Sensing*, 38:23, 7070-7084.
- Shiming Xu*, **Lu Zhou**, Jiping Liu, Hui Lu and Bin Wang. *Simultaneous retrieval of sea ice thickness and snow depth by combining radar altimetry and L-band remote sensing - a study with SMOS and Operation IceBridge data*, in revision.

PRESENTATIONS

- **Lu Zhou**, Shiming Xu, et al., *Large-scale Arctic sea ice thickness and snow depth retrieval using active and passive satellite data*, oral presentation, POLAR 2018, Davos, Switzerland, Jun 2018
- **Lu Zhou**, Shiming Xu, et al., *On the Efficacy of Snow Data in Satellite Altimetry for Arctic Sea Ice*, poster presentation, POLAR 2018, Davos, Switzerland, Jun 2018
- **Lu Zhou**, Shiming Xu, et al., *Simultaneous retrieval of sea ice thickness and snow depth using concurrent active altimetry and passive L-band remote sensing data*, oral presentation, 2017 AGU Fall Meeting, New Orleans, USA, Dec 2017

SKILLS

- Programming Skills: Matlab [advanced], NCL [advanced], Python [upper-intermediate], Fortran [upper-intermediate]
- Language Skills: GRE: 324+4

REFERENCES

Prof. Shiming Xu (thesis supervisor)
Department of Earth System Science, Tsinghua
University
E-mail: xusm@tsinghua.edu.cn

Prof. Jiping Liu (thesis committee member)
Department of Atmospheric and Environmental
Sciences, University at Albany, State University of
New York
E-mail: jliu26@albany.edu