

ZIYU HUANG

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EDUCATION

University of Southern California, Los Angeles, CA, USA 2018 -
Doctor of Philosophy student
Department of Astronautical Engineering GPA: 3.98

Beihang University, Beijing, China 2014 - 2018
Bachelor of Engineering in Aerospace Engineering
School of Energy and Power Engineering Overall GPA: 3.80 (top 10%) Major GPA: 3.92

EMPLOYMENT EXPERIENCE

Teaching Assistant at University of Southern California 08/2019-present
Funded by **Department of Astronautical Engineering(ASTE)**

Research Assistant at University of Southern California 05/2020-08/2020
Funded by **Air Force Research Laboratory(AFRL)**
Molecular dynamics modeling of ionic liquid.

ACADEMIC ACTIVITY

o Peer-reviewed Journal

- 2 **Huang, Z.**, K. Nomura, J. Wang., (2021). Molecular Dynamics Simulations of Water Formation and Retention by Micrometeoroid Impact on Lunar Surface. *Geophysical Research Letters*, 48, e2021GL093509 <https://doi.org/10.1029/2021GL093509>
- 1 **Huang, Z.**, Nomura, K., Nakano, A., Wang, J. (2021). Molecular Dynamics Simulations of Dielectric Breakdown of Lunar Regolith: Implications for Water Ice Formation on Lunar Surface. *Geophysical Research Letters*, 48, e2020GL091681 <https://doi.org/10.1029/2020GL091681>

o Conference Paper/Abstract

- 11 **Ziyu Huang**, K. Nomura, J. Wang. Modeling Solar Wind Implantation and Its Contributions to Volatile Formation on Lunar Surface *52nd Lunar and Planetary Science Conference*(**Poster**)
- 10 **Ziyu Huang**, K. Nomura, J. Wang. Modeling Lunar Water Formation Induced by Micrometeorite Impacts *AGU Fall Meeting 2020 P023-0009*(**Poster**)
- 9 **Ziyu Huang**, J. Wang. Dusty Spacesuit Charging/Discharge and Its Effects on Spacesuit Material Property *7th annual NASA Exploration Science Forum*(**Poster**)
- 8 **Ziyu Huang**, K. Nomura, A. Nakano, J. Wang. Molecular Dynamics Simulations of Water and Hydrogen Formation on Lunar Surface *7th annual NASA Exploration Science Forum*(**Oral Presentation**)
- 7 **Ziyu Huang**, K. Nomura, J. Wang. The Role of Dielectric Breakdown in the Formation of Water Molecules in Lunar Regolith. *51st Lunar and Planetary Science Conference*(**Oral Presentation**)
- 6 **Ziyu Huang**, Joseph Wang. Modeling Plasma-Dust-Spacesuit Interactions on Lunar Surface: Charging, Arcing, and Dielectric Breakdown *16th Spacecraft Charging Technology Conference 2020*(**Oral Presentation**)

- 5 J. Wang.,**Ziyu Huang**, Modeling Astronaut Dust Effects on Spacesuit Charging/Arcing: Implications for Astronaut Safety on Lunar Surface. *The Impact of Lunar Dust on Human Exploration Workshop 2020*(**Oral Presentation**)
- 4 J. Wang, **Ziyu Huang** Dusty Spacesuit Charging/Arcing in Plasma: Implications for Astronaut Safety at the Lunar Terminator and Far-Side *AGU Fall Meeting 2019,P33C-09*(**Oral Presentation**)
- 3 Chen Cui, **Ziyu Huang**, Yuan Hu, J. Wang, 2019. Grid-Based Kinetic Simulations of Collisionless Plasma Expansion *36th International Electric Propulsion Conference, IEPC-2019-862*
- 2 **Ziyu Huang**, J. Wang. Numerical simulations of astronaut charging at lunar terminator.*10th annual Lunar and Small Bodies Graduate Forum*(**Oral Presentation**)
- 1 **Ziyu Huang**, Kevin Chou, J. Wang. Modeling Astronaut Charging/Arcing at Lunar Terminator and Lunar Far-Side. *Applied Space Environments Conference 2019*(**Oral Presentation**)

AWARDS AND HONORS

Graduate Fellowship, University of Southern California (2018-2019)

Wu Da Guan Memorial Scholarship(2015,2016,2017)

Third Prize, Beihang University 27th Scientific and Technological Competition.(2017)

Third Prize, Beihang University 26th Scientific and Technological Competition.(2016)

Second Prize, Mathematical Contest in Modeling(MCM)(2016)

Second Prize, Beihang University 25th Innovation Competition. (2015)

TECHNICAL STRENGTHS

Programming Language

Python, C++, C, FORTRAN, IDL, OpenMPI, CUDA

Others

Latex, Markdown, git