

## 吳宗叡 Jeremy Tsung-jui Wu

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### Positions

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#### Postdoctoral Research Fellow

April 2022 – present

Department of Earth and Atmospheric Sciences  
University of Houston  
Supervisor: Jonny Wu

#### Research Assistant

2016 - 2017

Department of Geosciences  
National Taiwan University  
Supervisor: Bor-ming Jahn (江博明), Ching-hua Lo (羅清華)

### Education

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#### University of Houston, U.S.

2017 - 2021

Ph.D, Geology, Department of Earth and Atmospheric Sciences  
Thesis: NW Pacific-Eurasia Subduction History and Continental Arc Evolution Along  
NE Asia Since Cretaceous Times  
Supervisor: Jonny Wu

#### National Taiwan University, Taiwan

2013 - 2016

M.Sc, Department of Geoscience  
Thesis: Geochemical Characteristics and Petrogenesis of Adakites in Russian Far East  
Supervisor: Bor-ming Jahn

#### National Taiwan University, Taiwan

2007 - 2011

B.S, Department of Geoscience

## **Publications**

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**Wu, J. T. J.**, Wu, J., Alexandrov, I., Lapen, T., Lee, H. Y., & Ivin, V. Continental growth during migrating arc magmatism and terrane accretion at Sikhote-Alin (Russian Far East) and adjacent NE Asia. Submitted to the journal *Lithos*.

**Wu, J. T. J.**, Wu, J., & Okamoto, K. (2022). Intra-oceanic arc accretion along Northeast Asia during Early Cretaceous provides a plate tectonic context for North China craton destruction. *Earth-Science Reviews*, 103952.

Wu, J., Lin, Y. A., Flament, N., **Wu, J. T. J.**, & Liu, Y. (2022). Northwest Pacific-Izanagi plate tectonics since Cretaceous times from western Pacific mantle structure. *Earth and Planetary Science Letters*, 583, 117445.

**Wu, J. T. J.**, & Wu, J. (2019). Izanagi-Pacific ridge subduction revealed by a 56 to 46 Ma magmatic gap along the northeast Asian margin. *Geology*, 47(10), 953-957.

**Wu, J. T. J.**, Jahn, B. M., Nechaev, V., Chashchin, A., Popov, V., Yokoyama, K., & Tsutsumi, Y. (2017). Geochemical characteristics and petrogenesis of adakites in the Sikhote-Alin area, Russian Far East. *Journal of Asian Earth Sciences*, 145, 512-529.

Jahn, B. M., Valui, G., Kruk, N., Gonevchuk, V., Usuki, M., & **Wu, J. T. J.** (2015). Emplacement ages, geochemical and Sr–Nd–Hf isotopic characterization of Mesozoic to early Cenozoic granitoids of the Sikhote-Alin Orogenic Belt, Russian Far East: Crustal growth and regional tectonic evolution. *Journal of Asian Earth Sciences*, 111, 872-918.

In preparation:

**Wu, J. T. J.**, Wu, J., Chen, L., Wu, Y., Jun, M., Bajgiran., M. R. Plate tectonic controls on subduction arc magmatism from ancient and recent western Pacific arc geochemistry

**Wu, J. T. J.**, Yen, W., Wu, J., Lapen, T., Alexandrov, I. Plate-tectonics links to the origin of silicic magmatism within a long-lived continental arc in Sikhote-Alin (Russian Far East)

**Wu, J. T. J.,** Bajgiran., M. R., Jonny, Wu., Chen, T. W. Bottom-to-top dynamics of subduction factory in Circum-Pacific convergence margins through deep-time

### **Selected conference abstracts**

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**Wu, J. T. J.,** Wu, J., & Okamoto, K. (2022, August). Intra-oceanic arc accretion along Northeast Asia during Early Cretaceous provides a plate tectonic context for North China craton destruction and lithospheric mantle evolution. In 2022 AOGS Meeting (SE18-A014).

**Wu, J.T. J.,** Wu, J., Chen, L., & Jun, M. (2022, July). Plate tectonic controls on convergent margin arc magmatism at ~1 Ma timescales from multivariate analysis of large magmatic datasets. In AGU-SEG Collaboration Committee's 2022 workshop.

**Wu, J. T. J.,** & Wu, J. (2022 May). Cretaceous to Cenozoic NW Panthalassa plate-reconstruction and implications for the evolution of NE Asia convergence plate boundary. In 2022 JpGU Meeting (SIT20-01).

**Wu, J. T. J.,** Wu, J., & Okamoto, K. (2022 May). Intra-oceanic arc accretion along Northeast Asia during Early Cretaceous provides a plate tectonic context for North China craton destruction. In 2022 JpGU Meeting (SGL24-P01).

**Wu, J.T. J.,** Wu, J., Chen, L., & Jun, M. (2021, December). Late Cretaceous NE Asia continental arc magmatic signatures corresponding to ultrafast Izanagi plate subduction. In 2021 AGU Fall Meeting (Vol. 2021, pp. DI51A-01).

Wu, J., Lin, Y. A., Flament, N. E., **Wu, J.T. J.,** & Liu, Y. (2021, December). Unsubducting the western Pacific slabs to constrain Izanagi-Pacific plate tectonics along East Asia since the Cretaceous: significance of the 'Qingdao line' transform. In 2021 AGU Fall Meeting 2021.

**Wu, J. T. J.,** Wu, J., Alexandrov, I., & Lapen, T. (2019, December). Early Cretaceous to Paleocene magmatism at Sikhote-Alin, Russian Far East, and its implications for Paleo-Pacific subduction. In 2019 AGU Fall Meeting (Vol. 2019, pp. T51E-0322).

Wu, J., Lin, Y. A., Flament, N. E., **Wu, J. T. J.**, & Liu, Y. (2019, December). Unsubducting the western Pacific slabs to link the Pacific-Panthalassa and Tethys Oceans during the Cretaceous. In 2019 AGU Fall Meeting (Vol. 2019, pp. T51E-0326).

**Wu, J.T.J.**, Wu, J., Alexandrov, I., & Lapen, T. (2019, May). Early Cretaceous to Paleocene magmatism in the Sikhote-Alin area and their implications for Paleo-Pacific plate subduction and continental evolution. In 2019 JpGU Meeting (SIT26-09).

**Wu, J. T. J.**, Lin, Y. A., Flament, N. E., & Wu, T. J. (2018, December). Reconstructing Izanagi-Pacific ridge subduction under East Asia from imaged and predicted mantle structure. In 2018 AGU Fall Meeting (Vol. 2018, pp. T31D-0354).

**Wu, J. T. J.**, & Wu, J. (2018, May). Geochemical constraints on Pacific-Izanagi ridge subduction along the NE Asian margin from the magmatic record of Japan, Sikhote-Alin and Sakhalin. In 2018 JpGU Meeting (SIT23-10).

**Wu, J. T. J.**, Jahn, B. M., Nechaev, V., Chashchin, A., Popov, V., Yokoyama, K., & Tsutsumi, Y. (2017, November). Geochemical Characteristics and Petrogenesis of Adakites in the Sikhote-Alin Area, Russian Far East. In the international conference in memory of Prof. Bor-ming Jahn: Asian Orogeny and Continental Evolution: New Advances from Geologic, Geophysical and Geochemical Perspectives.

**Wu, J. T. J.**, Jahn, B. M., Nechaev, V., Chashchin, A., Yokoyama, K., & Tsutsumi, Y. (2016, April). Geochemical characteristics and petrogenesis of adakites in Sikhote-Alin, Russian Far East. In 2016 EGU meeting. EGU General Assembly Conference Abstracts (pp. EPSC2016-11203).

### **Awards and honors**

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- Third place winner for student presentation contest in CAPA Annual Technical Forum, 2019
- Outstanding Student Presentation Award in JpGU meeting, 2018
- Dean's Award of College of Science, 2016
- Member of the Phi Tau Phi Scholastic Honor Society, 2016
- Excellent Award for Student Paper Competition in Annual Congress of Geological

Society of Taiwan, 2015

- First prize for Competition of Topics Research on Earth Science, 2011
- Bronze Medal Award for Multidisciplinary Science Education Program, 2010

### **Research experience**

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**Postdoctoral researcher** University of Houston 2022 - present  
**Research assistant** National Taiwan University 2016 – 2017

### **Teaching experience**

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**Teaching Assistant** National Taiwan University  
Introduction to Field Geology II (instructor: Ya-Hsuan Liou) 2015 - 2017  
Geological Surveying IV (instructor: Louis S. Teng) 2016

### **Research supervision**

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Jefferey Lee: Multivariate Analysis of Volcanism and Plate Convergence in the East Asia  
(Undergraduate project co-supervised with Jonny Wu)

### **Field experience**

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2015 Jul 14-days in the Sakhalin Island and Sikhote-Alin (Russian Far East)  
2014 Oct 6-days in Sikhote-Alin (Russian Far East)  
2013 Sep 8-days in Sikhote-Alin (Russian Far East)

### **Fellowship and grants**

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- 2022 Travel sponsorship for SEG-AGU workshop from IRIS: \$1,641.83
- 2022 SEG Registration support from Student and Early Career Development Student Program: \$300
- 2017 Graduate Tuition Fellowship at the University of Houston: \$7,000 per year

- 2017 Research Assistantship at the University of Houston: \$21,600 per year
- 2016 Sponsorship for Graduate Students to Attend International Conference:  
TWD 50,000 (MOST-105-2922-I-002-083)

### **Invited talks**

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Aug 2022 Asia Oceania Geosciences Society annual meeting  
 May 2022 Japan Geoscience Union Meeting  
 Feb 2022 Department of Geoscience, National Taiwan University, Taiwan  
 Feb 2022 Academia Sinica, Taiwan  
 Oct 2021 Institute of Oceanography, National Taiwan University, Taiwan

### **Professional Activity**

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#### Reviewer

Geology (Jul and Dec 2020), Journal of Geophysical Research: Solid Earth (Jan, Mar 2021, and Aug 2022), Science China Earth Sciences (Dec and Jan 2022), Lithos (Feb and May 2022), Island Arc (Mar and Jul 2022), and Gondwana Research (May 2022).

#### Certifications

Scientific Programming with Python (HPE Data Science Institute at UH)	2022
Physical Science Responsible Conduct of Research (CITI program)	2021
R For Data Science (HPE Data Science Institute at UH)	2020
Hydrofluoric Acid Safety Lecture (U of Houston)	2019
Radioactive Material Safety (U of Houston)	2019
General Laboratory Safety & Hazardous Materials Orientation (U of Houston)	2018

#### Convener

May 2022 Convener of East Asia Tectonics workshop sponsored by University of Houston and Sun Yat-sen University  
 Oct 2021 Student host of UH EAS Department seminar (Speaker: Lydian Boschman)