

## Ryo Okuwaki

PhD student

Graduate School of Life and Environmental Sciences, University of Tsukuba

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Personal website: <https://rokuwaki.github.io>

### Education

2016–Present Ph.D. candidate, Science, University of Tsukuba, Advisor: Yuji Yagi

2014–2016 M.Sc., Science, University of Tsukuba, Advisor: Yuji Yagi

2010–2014 B.Sc., Science, University of Tsukuba, Advisor: Yuji Yagi

### Employment

2016–2019 Research Fellow of the Japan Society for the Promotion of Science (DC1)

### Grants

- 2016–2019 Grant-in-Aid for the Japan Society for the Promotion of Science for Research Fellows (DC1), "Irregular rupture evolution during the large/great earthquakes: resolved by high-frequency radiation sources and co-seismic slip distribution", 2016-04-22/2019-03-31 (16J00298)  
<https://kaken.nii.ac.jp/en/grant/KAKENHI-PROJECT-16J00298/>
- 2018 Young Researcher Travel Support for 10th ACES (APEC Cooperation for Earthquake Science) International Workshop, Awaji Island Japan, September 2018
- 2015 Travel Grant for the 3rd international summer school on Earthquake Science, Lake-Yamanaka Japan, Earthquake Research Institute of the University of Tokyo and Southern California Earthquake Center, September 2015
- 2014 Travel Grant for the 2014 VISES Summer School, Oxnard CA, Southern California Earthquake Center and Earthquake Research Institute of the University of Tokyo, September 2014
- 2014 Travel Grant for the 2014 Annual Meeting of Seismological Society of America, Anchorage Ak, Seismological Society of Japan, April 2014

### Awards

- 2018 Outstanding Student Presentation Award, JpGU Meeting 2018, May 2018
- 2018 Best Student Award, Doctoral Program in Earth Evolution Sciences, University of Tsukuba, March 2018
- 2017 Outstanding Student Presentation Award, JpGU-AGU Joint Meeting 2017, May 2017
- 2015 Best Poster Presentation Award, Tsukuba Global Science Week 2015, September 2015
- 2014 Outstanding Student Presentation Awards, Seismological Society of Japan 2014 Fall Meeting, November 2014
- 2014 Outstanding Student Award (Provost's Prize), University of Tsukuba, March 2014

### Service

#### Journal Referee ([publons](#))

- Earth and Planetary Science Letters
- Journal of Asian Earth Sciences
- Journal of Geophysical Research - Solid Earth
- Pure and Applied Geophysics

### Conference

- Primary convener of the session in the AGU Fall Meeting 2018  
Co-conveners: Wenyan Fan, Valère Lambert, Zacharie Duputel

S006: Earthquake Source Physics: Unified perspectives from Kinematic Source Imaging, Physics-based Modeling, Laboratory Experiments, and Earthquake Geology

<https://agu.confex.com/agu/fm18/prelim.cgi/Session/43148>

### Visiting Appointment

2016 University of California, Los Angeles (Prof. Lingsen Meng), September–October 2016

### Teaching Experiences

2013–2015 TA, Basic Mathematics for Geoscience, Yuji Yagi, Spring 2013/2014/2015

2013–2014 TA, Science Visualization Assignments, Sayoko Tanaka & Yuji Yagi, Summer 2013/2014

### Invited Talks

2015 Ryo Okuwaki & Yuji Yagi, "High-frequency rupture related to the complex fault system and variable slip motions, insights from hybrid backprojection image of the Mw 7.9 2008 Wenchuan, China, earthquake", The 3rd international summer school on Earthquake Science, Lake-Yamanaka Japan, Earthquake Research Institute of the University of Tokyo and Southern California Earthquake Center, September 2015

2018 Ryo Okuwaki & Yuji Yagi, "Shallow intraslab normal faulting: Rupture process of the Mw 8.1 2017 Chiapas Mexico earthquake", Japan Geoscience Union Meeting 2018, Chiba Japan, May 2018

### Publications

12 peer-reviewed articles

Total citations: 277 ([Google Scholar](#)), 136 ([ResearcherID](#))

h-index: 7 ([Google Scholar](#)), 5 ([ResearcherID](#))

1. (Submitted) Okuwaki, R., Kasahara, A., Yagi, Y., Hirano, S., & Fukahata, Y., Backprojection to image slip, *Geophys. J. Int.*, Oxford University Press, doi: 10.31223/osf.io/dghkw.
2. Aránguiz, A., Urrea, L., Okuwaki, R., & Yagi, Y., Tsunami fragility curve using field data and numerical simulation of the 2015 tsunami in Coquimbo, Chile, *Nat. Hazards Earth Syst. Sci.*, Copernicus Publications, accepted.
3. Okuwaki, R., & Yagi, Y., Role of geometric barriers in irregular-rupture evolution during the 2008 Wenchuan earthquake, *Geophys. J. Int.*, Oxford University Press, 2018, doi: 10.1093/gji/ggx502.
4. Okuwaki, R., & Yagi, Y., Rupture Process during the MW 8.1 2017 Chiapas Mexico Earthquake: Shallow Intraplate Normal Faulting by Slab Bending, *Geophys. Res. Lett.*, AGU, 2017, doi:10.1002/2017GL075956.
5. Miyakawa, A., Sumita, T., Okubo, Y., Okuwaki, R., Otsubo, M., Uesawa, S., & Yagi, Y., Volcanic magma reservoir imaged as a low-density body beneath Aso volcano that terminated the 2016 Kumamoto earthquake rupture, *Earth, Planets and Space*, a SpringerOpen Journal, 2016, doi:10.1186/s40623-016-0582-2.
6. Yagi, Y., Okuwaki, R., Enescu, B., Kasahara, A., Miyakawa, A., & Otsubo, M., Rupture process of the 2016 Kumamoto earthquake in relation with the thermal structure around Aso volcano, *Earth, Planets and Space*, a SpringerOpen Journal, 2016, doi:10.1186/s40623-016-0492-3.
7. Okuwaki, R., Yagi, Y., Aránguiz, R., González, J., & González, G., Rupture process during the 2015 Illapel, Chile earthquake: Zigzag-along-dip rupture episodes, *Pure Appl. Geophys.*, Springer International Publishing, 2016, doi:10.1007/s00024-016-1271-6.
8. Mai, M., Schorlemmer, D., Page, M., Ampuero, J-P., Asano, K., Causse, M., Custodio, S., Fan, W., Festa, G., Galis, M., Gallovic, F., Imperatori, W., Käser, M., Malytskyy, D., Okuwaki, R., Pollitz, F., Passone, L., Razafindrakoto, H., Sekiguchi, H., Song, S., Somala, S., Thingbaijam, K., Twardzik, C., van Driel, M., Vyas, J., Wang, R., Yagi, Y., & Zielke, O., The Earthquake-Source Inversion Validation (SIV) Project, *Seismol. Res. Lett.*, SSA, 2016, doi:10.1785/0220150231.
9. Aranguiz, R., Gonzalez, G., Gonzalez, J., Catalan, P., Cienfuegos, R., Yagi, Y., Okuwaki, R., Urrea, L., Contreras, K., Del Rio, I., & Rojas, C., The 16 September 2015 Chile tsunami from the post-tsunami survey and numerical modeling perspectives, *Pure Appl. Geophys.*, Springer International Publishing, 2016, doi:10.1007/s00024-015-1225-4.
10. Yagi, Y., & Okuwaki, R., Integrated seismic source model of the 2015 Gorkha, Nepal, earthquake, *Geophys. Res. Lett.*, AGU, 2015, doi: 10.1002/2015GL064995.
11. Yagi, Y., Okuwaki, R., Enescu, B., & Fukahata, Y., Unusual low-angle normal fault earthquakes after the 2011 Tohoku-oki megathrust earthquake, *Earth, Planets and Space*, a SpringerOpen Journal, 2015, doi:10.1186/s40623-015-0271-6.

12. Okuwaki, R., Yagi, Y., & Hirano, S., Relationship between High-frequency Radiation and Asperity Ruptures, Revealed by Hybrid Back-projection with a Non-planar Fault Model, Sci. Rep., Nature Publishing Group, 2014, doi:10.1038/srep07120.
13. Yagi, Y., Okuwaki, R., Enescu, B., Hirano, S., Yamagami, Y., Endo, S., & Komoro, T., Rupture process of the 2014 Iquique Chile earthquake in relation with the foreshock activity, Geophys. Res. Lett., AGU, 2014, doi:10.1002/2014GL060274.

**Research Interests**

Earthquake Seismology, Geophysics

**Languages**

Japanese (Mother tongue), English (Professional working proficiency)

Fortran, Python, matplotlib, GMT, SAC, UNIX utilities

**Academic Societies**

American Geophysical Union (AGU), Japan Geoscience Union (JpGU), Seismological Society of America (SSA), Seismological Society of Japan (SSJ), Southern California Earthquake Center (SCEC)

## 奥脇 亮

筑波大学大学院 生命環境科学研究科 地球進化科学専攻 博士後期課程

日本学術振興会特別研究員 DC1

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E-mail-alt: [rokuwaki@gmail.com](mailto:rokuwaki@gmail.com)

Personal website: <https://rokuwaki.github.io>

### 学歴

- 2016–現在 筑波大学大学院博士後期課程, 指導教員: 八木勇治  
2014–2016 筑波大学大学院博士前期課程, 修士 (理学), 指導教員: 八木勇治  
2010–2014 筑波大学地球学類, 学士 (理学), 指導教員: 八木勇治

### 職歴

- 2016–2019 日本学術振興会特別研究員 DC1

### 外部資金獲得歴

- 2016–2019 科学研究費 特別研究員奨励費「高周波励起源と断層すべりに基づく巨大地震の不規則な発展プロセスの解明」2016-04-22/2019-03-31 (16J00298)  
<https://kaken.nii.ac.jp/ja/grant/KAKENHI-PROJECT-16J00298/>  
2018 Young Researcher Travel Support for 10th ACES (APEC Cooperation for Earthquake Science) International Workshop, Awaji Island Japan, September 2018  
2015 Travel Grant for the 3rd international summer school on Earthquake Science, Lake-Yamanaka Japan, Earthquake Research Institute of the University of Tokyo and Southern California Earthquake Center, 2015年9月  
2014 Travel Grant for the 2014 VISES Summer School, Oxnard CA, Southern California Earthquake Center and Earthquake Research Institute of the University of Tokyo, 2014年9月  
2014 日本地震学会 海外渡航旅費助成金, 2014 Annual Meeting of Seismological Society of America, Anchorage Ak, 2014年4月

### 受賞歴

- 2018 学生優秀発表賞, 日本地球惑星科学連合2018年大会, 2018年5月  
2018 地球進化科学専攻長賞, 筑波大学, 2018年3月  
2017 学生優秀発表賞, JpGU-AGU Joint Meeting 2017, 2017年5月  
2015 Best Poster Presentation Award, Tsukuba Global Science Week 2015, 2015年9月  
2014 学生優秀発表賞, 日本地震学会2014年度秋季大会, 2014年11月  
2014 筑波大学生命環境学群 学群長賞, 2014年3月

### 査読歴 (publons)

- Earth and Planetary Science Letters
- Journal of Asian Earth Sciences
- Journal of Geophysical Research - Solid Earth
- Pure and Applied Geophysics

### 学会運営

- Primary convener of the session in the AGU Fall Meeting 2018  
Co-conveners: Wenyan Fan, Valère Lambert, Zacharie Duputel  
S006: Earthquake Source Physics: Unified perspectives from Kinematic Source Imaging, Physics-based Modeling, Laboratory Experiments, and Earthquake Geology

**渡航歴 (在外研究)**

2016 カルフォルニア大学ロサンゼルス校 (Lingsen Meng助教), 2016年9-10月

**教育歴**

2013-2015 TA, 地球基礎数学 (八木勇治准教授) 2013/2014/2015年夏学期

2013-2014 TA, サイエンス・ビジュアルゼーション (田中佐代子准教授, 八木勇治准教授) 2013/2014年夏学期

**招待講演**

2015 Ryo Okuwaki & Yuji Yagi, "High-frequency rupture related to the complex fault system and variable slip motions, insights from hybrid backprojection image of the Mw 7.9 2008 Wenchuan, China, earthquake", The 3rd international summer school on Earthquake Science, Lake-Yamanaka Japan, Earthquake Research Institute of the University of Tokyo and Southern California Earthquake Center, 2015年9月

2018 Ryo Okuwaki & Yuji Yagi, "Shallow intraslab normal faulting: Rupture process of the Mw 8.1 2017 Chiapas Mexico earthquake", 日本地球惑星科学連合2018年大会, 千葉, 2018年5月

**論文**

査読付き論文12報

引用数合計: 277 ([Google Scholar](#)), 136 ([ResearcherID](#))

h-指数: 7 ([Google Scholar](#)), 5 ([ResearcherID](#))

1. (Submitted) Okuwaki, R., Kasahara, A., Yagi, Y., Hirano, S., & Fukahata, Y., Backprojection to image slip, *Geophys. J. Int.*, Oxford University Press, doi: 10.31223/osf.io/dghkw.
2. Aránguiz, A., Urrea, L., Okuwaki, R., & Yagi, Y., Tsunami fragility curve using field data and numerical simulation of the 2015 tsunami in Coquimbo, Chile, *Nat. Hazards Earth Syst. Sci.*, Copernicus Publications, accepted.
3. Okuwaki, R., & Yagi, Y., Role of geometric barriers in irregular-rupture evolution during the 2008 Wenchuan earthquake, *Geophys. J. Int.*, Oxford University Press, 2018, doi: 10.1093/gji/ggx502.
4. Okuwaki, R., & Yagi, Y., Rupture Process during the MW 8.1 2017 Chiapas Mexico Earthquake: Shallow Intraplate Normal Faulting by Slab Bending, *Geophys. Res. Lett.*, AGU, 2017, doi:10.1002/2017GL075956.
5. Miyakawa, A., Sumita, T., Okubo, Y., Okuwaki, R., Otsubo, M., Uesawa, S., & Yagi, Y., Volcanic magma reservoir imaged as a low-density body beneath Aso volcano that terminated the 2016 Kumamoto earthquake rupture, *Earth, Planets and Space*, a SpringerOpen Journal, 2016, doi:10.1186/s40623-016-0582-2.
6. Yagi, Y., Okuwaki, R., Enescu, B., Kasahara, A., Miyakawa, A., & Otsubo, M., Rupture process of the 2016 Kumamoto earthquake in relation with the thermal structure around Aso volcano, *Earth, Planets and Space*, a SpringerOpen Journal, 2016, doi:10.1186/s40623-016-0492-3.
7. Okuwaki, R., Yagi, Y., Aránguiz, R., González, J., & González, G., Rupture process during the 2015 Illapel, Chile earthquake: Zigzag-along-dip rupture episodes, *Pure Appl. Geophys.*, Springer International Publishing, 2016, doi:10.1007/s00024-016-1271-6.
8. Mai, M., Schorlemmer, D., Page, M., Ampuero, J-P., Asano, K., Causse, M., Custodio, S., Fan, W., Festa, G., Galis, M., Galovic, F., Imperatori, W., Käser, M., Malytsky, D., Okuwaki, R., Pollitz, F., Passone, L., Razafindrakoto, H., Sekiguchi, H., Song, S., Somala, S., Thingbaijam, K., Twardzik, C., van Driel, M., Vyas, J., Wang, R., Yagi, Y., & Zielke, O., The Earthquake-Source Inversion Validation (SIV) Project, *Seismol. Res. Lett.*, SSA, 2016, doi:10.1785/0220150231.
9. Aranguiz, R., Gonzalez, G., Gonzalez, J., Catalan, P., Cienfuegos, R., Yagi, Y., Okuwaki, R., Urrea, L., Contreras, K., Del Rio, I., & Rojas, C., The 16 September 2015 Chile tsunami from the post-tsunami survey and numerical modeling perspectives, *Pure Appl. Geophys.*, Springer International Publishing, 2016, doi:10.1007/s00024-015-1225-4.
10. Yagi, Y., & Okuwaki, R., Integrated seismic source model of the 2015 Gorkha, Nepal, earthquake, *Geophys. Res. Lett.*, AGU, 2015, doi: 10.1002/2015GL064995.
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12. Okuwaki, R., Yagi, Y., & Hirano, S., Relationship between High-frequency Radiation and Asperity Ruptures, Revealed by Hybrid Back-projection with a Non-planar Fault Model, *Sci. Rep.*, Nature Publishing Group, 2014, doi:10.1038/srep07120.

13. Yagi, Y., Okuwaki, R., Enescu, B., Hirano, S., Yamagami, Y., Endo, S., & Komoro, T., Rupture process of the 2014 Iquique Chile earthquake in relation with the foreshock activity, Geophys. Res. Lett., AGU, 2014, doi:10.1002/2014GL060274.

**専門分野**

地震学, 地球物理学

**使用言語**

日本語, 英語

Fortran, Python, matplotlib, GMT, SAC, UNIX utilities

**所属学会**

アメリカ地球物理学連合 (AGU), 日本地球惑星科学連合 (JpGU), アメリカ地震学会 (SSA), 日本地震学会 (SSJ), 南カルフォルニア地震センター (SCEC)

**その他の活動**

地球惑星科学NYS事務局