

**Ryo Okuwaki**

PhD candidate, JSPS Research Fellow  
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)
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**Grants**

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/>

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

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

Travel Grant for the 2014 Annual Meeting of Seismological Society of America, Anchorage Ak, Seismological Society of Japan, April 2014

**Awards**

Best Student Award, Doctoral Program in Earth Evolution Sciences, University of Tsukuba, March 2018

Outstanding Student Presentation Award, JpGU-AGU Joint Meeting 2017, May 2017

Best Poster Presentation Award, Tsukuba Global Science Week 2015, September 2015

Outstanding Student Presentation Awards, Seismological Society of Japan 2014 Fall Meeting, November 2014

Outstanding Student Award (Provost's Prize), University of Tsukuba, March 2014

## Service

Journal Referee      *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: Wenyuan 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

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

## Teaching Experiences

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

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

## Invited Talks

**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

**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 article)

Total citations: 276 (Google Scholar), 134 (ResearcherID)

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

Google Scholar: <https://scholar.google.co.jp/citations?user=SQ9MZgEAAAAJ&hl>

ResearcherID: <http://www.researcherid.com/rid/A-1601-2016>

1. Aránguiz, A., Urra, 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.
2. **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.

3. **Okuwaki, R.**, & Yagi, Y., Rupture Process during the  $M_w$  8.1 2017 Chiapas Mexico Earthquake: Shallow Intraplate Normal Faulting by Slab Bending, *Geophys. Res. Lett.*, AGU, 2017, doi:10.1002/2017GL075956.
4. 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.
5. 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.
6. **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.
7. 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., 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.
8. 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.
9. Yagi, Y., & **Okuwaki, R.**, Integrated seismic source model of the 2015 Gorkha, Nepal, earthquake, *Geophys. Res. Lett.*, AGU, 2015, doi:10.1002/2015GL064995.
10. 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.
11. **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.
12. 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

〒305-8572 茨城県つくば市天王台 1-1-1

電話番号: 029-853-4473

E-mail: rokuwaki@geol.tsukuba.ac.jp

E-mail-alt: 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  
2010–201 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**

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/>

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

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

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**

地球進化科学専攻長賞, 筑波大学, 2018 年 3 月

学生優秀発表賞, JpGU-AGU Joint Meeting 2017, 2017 年 5 月

Best Poster Presentation Award, Tsukuba Global Science Week 2015, 2015 年 9 月

学生優秀発表賞, 日本地震学会 2014 年度秋季大会, 2014 年 11 月

筑波大学生命環境学群 学群長賞, 2014 年 3 月

**査読歴**

*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: Wenjuan 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>

**渡航歴 (在外研究)**

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**

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

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**

**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

**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

**業績 (査読付き論文 12 本)**

引用件数: 276 (Google Scholar), 134 (ResearcherID)

h 指標: 7 (Google Scholar), 5 (ResearcherID)

Google Scholar: <https://scholar.google.co.jp/citations?user=SQ9MZgEAAAAJ&hl>

ResearcherID: <http://www.researcherid.com/rid/A-1601-2016>

1. Aránguiz, A., Urra, 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.
2. **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.

3. **Okuwaki, R.**, & Yagi, Y., Rupture Process during the  $M_w$  8.1 2017 Chiapas Mexico Earthquake: Shallow Intraplate Normal Faulting by Slab Bending, *Geophys. Res. Lett.*, AGU, 2017, doi:10.1002/2017GL075956.
4. 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.
5. 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.
6. **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.
7. 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., 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.
8. Aranguiz, R., Gonzalez, G., Gonzalez, J., Catalan, P., Cienfuegos, R., Yagi, Y., **Okuwaki, R.**, Urra, 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.
9. Yagi, Y., & **Okuwaki, R.**, Integrated seismic source model of the 2015 Gorkha, Nepal, earthquake, *Geophys. Res. Lett.*, AGU, 2015, doi:10.1002/2015GL064995.
10. 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.
11. **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.
12. 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), 南カリ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 事務局メンバー