Curriculum Vitae March 31, 2021

Ryo Okuwaki

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Appointments	International Tenure Track assistant professor University of Tsukuba	06/2019-Present
	Visiting Professor University of Leeds / Mentor: Tim Wright	03/2020–03/2022
	Cooperative Research Fellow Geological Survey of Japan, AIST	09/2019–03/2020
	Visiting Scholar Florida State University / Mentor: Wenyuan Fan	09/2019–12/2019
	Research Fellow (PD) Japan Society for the Promotion of Science Geological Survey of Japan, AIST / Mentor: Takahiko Uchide	04/2019–06/2019
	Research Fellow (DC1) Japan Society for the Promotion of Science University of Tsukuba / Mentor: Yuji Yagi	04/2016–03/2019
	Visiting Scholar	09/2016–10/2016

Grants

JSPS Grant-in-Aid for Early-Career Scientists

University of California, Los Angeles / Mentor: Lingsen Meng

2020-04-01 - 2024-03-31

 $Unraveling\ unconventional\ seismic\ sources\ using\ dense\ seismic\ arrays\ (20K14570)$ $Budget\ amount:\ 3,770,000\ JPY\ (Direct\ cost:\ 2,900,000\ JPY,\ Indirect\ cost:\ 870,000\ JPY)$

Grant-in-Aid for JSPS Fellows

2019-04-01 - 2022-03-31*

Rupture evolution during the mega and large earthquakes resolved by multi-scale source analyses (19J00814)

Budget amount: 4,420,000 JPY (Direct cost: 3,400,000 JPY, Indirect cost: 1,020,000 JPY)

*Budgets for FY2020 and FY2021 have been declined due to resignation of JSPS fellow to accept tenure-track position at University of Tsukuba

Grant-in-Aid for JSPS Fellows

2016-04-01 - 2019-03-31

Irregular rupture evolution during the large/great earthquakes: resolved by high-frequency radiation sources and co-seismic slip distribution (16J00298)

Budget amount: 2,500,000 JPY (Direct cost: 2,500,000 JPY, Indirect cost: 0 JPY)

Young Researcher Travel Support

2018

10th ACES (APEC Cooperation for Earthquake Science) International Workshop, Awaji Island Japan, ACES

Travel Grant 2015

The 3rd international summer school on Earthquake Science, Lake-Yamanaka Japan, Earthquake

Research Institute of the University	y of Tokyo and Southern	California Farthquake Center
Research institute of the Offiversit	y or tokyo and Southern	California Lai linguare Cerrier

Travel Grant 2014

The 2014 VISES Summer School, Oxnard CA, Southern California Earthquake Center and Earthquake Research Institute of the University of Tokyo

Travel Grant 2014

The 2014 Annual Meeting of Seismological Society of America, Anchorage Ak, Seismological Society of Japan

Education Ph.D. (Science), University of Tsukuba 03/2019

M.Sc. (Science), University of Tsukuba	03/2016
B.Sc. (Science), University of Tsukuba	03/2014

Awards Excellent Reviewers for 2020, Earth, Planets and Space 2021

Excellent Neviewers for 2020, Earth, Flanets and Space	2021
President Prize, University of Tsukuba	
Outstanding Student Presentation Award, JpGU Meeting 2018	2018
Outstanding reviewer, Earth and Planetary Science Letters	
Best Student Award, Doctoral Program in Earth Science Evolution, University of Tsukuba	2017
Outstanding Student Presentation Award, JpGU-AGU Joint Meeting 2017	
Best Poster Presentation Award, Tsukuba Global Science Week 2015	
Outstanding Student Presentation Awards, Seismol. Society of Japan 2014 Fall Meeting	
Outstanding Student Award (Provost Prize), University of Tsukuba	

Services Journal referee (publons)

Earth and Planetary Science Letters, Earth, Planets and Space, Geophysical Journal International, Journal of Asian Earth Sciences, Journal of Geophysical Research - Solid Earth, Physics of the Earth and Planetary Interiors, Pure and Applied Geophysics, Tectonophysics

Conference convener

- Co-convener 2020

with Théa Ragon, Wenyuan Fan, and Dara Goldberg

AGU Fall Meeting 2020, S036/S037/S042/S043: Modeling and imaging complex earthquake ruptures

- Co-convener 2019

with Théa Ragon, Wenyuan Fan, and Harsha Bhat

AGU Fall Meeting 2019, S42B/S51E: Resolving the complexity of earthquake processes

- Co-convener 2019

with Saeko Kita, Tomohiro Ohuchi, and Marcel Thielmann

JpGU Meeting 2019, S-CG50: Intraslab and intraplate earthquakes

- Primary convener 2018

with Wenyuan Fan, Valére Lambert, and Zacharie Duputel

AGU Fall Meeting 2018, S41A/S42A/S43C: Earthquake Source Physics: Unified perspectives from Kinematic Source Imaging, Physics-based Modeling, Laboratory Experiments, and Earthquake Geology

Invited talks Imperial College London, Earth and planets seminars 2021

Jį	pGU Meeting 2018, Session: Intraslab and intraplate earthquake	2018
S	CEC-ERI, The 3rd international summer school on Earthquake Science	2015

Affiliated societies American Geophysical Union (AGU), Japan Geoscience Union (JpGU), Seismological Society of

America (SSA), Seismological Society of Japan (SSJ), Southern California Earthquake Center

(SCEC)

Research interests Geophysics

Seismology
Earthquake seismology
Earthquake-source kinematics and physics
Earthquake-source imaging (backprojection, finite-fault modeling)
Earth's subsurface phenomena
Environmental seismology
Array seismology

Publications

Total citations: 593 (Google Scholar), 424 (Web of Science), 444 (Scopus) h-index: 12 (Google Scholar), 10 (Web of Science), 11 (Scopus) (†advisee)

- 22. Okuwaki, R., Fan, W., Yamada, M., Osawa, H., & Wright, T. J., Identifying landslides from continuous seismic surface waves: a case study of multiple small-scale landslides triggered by Typhoon Talas, 2011, *Geophysical Journal International*, , –, April 2021. doi:10.1093/gji/ggab129
- 21. Yamashita, S., Yagi, Y., Okuwaki, R., Shimizu, K., Agata, R., & Fukahata, Y., Consecutive Ruptures on a Complex Conjugate Fault System During the 2018 Gulf of Alaska Earthquake, Scientific Reports, 11, 1–11, March 2021.

 doi:10.1038/s41598-021-85522-w
- 20. Tadapansawut, T.[†], Okuwaki, R., Yagi, Y., & Yamashita, S., Rupture Process of the 2020 Caribbean Earthquake along the Oriente Transform Fault, Involving Supershear Rupture and Geometric Complexity of Fault, *Geophysical Research Letters*, 48, 1–9, January 2021. doi:10.1029/2020GL090899
- Shimizu, K., Yagi, Y., <u>Okuwaki, R.</u>, & Fukahata, Y., Construction of fault geometry by finite-fault inversion of teleseismic data, *Geophysical Journal International*, 224, 1003–1014, October 2020. doi:10.1093/gji/ggaa501
- 18. Okuwaki, R., Hirano, S., Yagi, Y., & Shimizu, K., Inchworm-like source evolution through a geometrically complex fault fueled persistent supershear rupture during the 2018 Palu Indonesia earthquake, Earth and Planetary Science Letters, 547, 116449 (1–8), October 2020.

 doi:10.1016/j.epsl.2020.116449
- 17. Hicks, S., Okuwaki, R., Steinberg, A., Rychert, C., Harmon, N., Abercrombie, R., Bogiatzis, P., Schlaphorst, D., Zahradník, J., Kendall, J.-M., Yagi, Y., Shimizu, K., & Sudhaus, H., Backpropagating supershear rupture in the 2016 Mw 7.1 Romanche transform fault earthquake, *Nature Geoscience*, 13, 647–653, September 2020. doi:10.1038/s41561-020-0619-9
- Takemura, S., Okuwaki, R., Kubota, T., Shiomi, K., Kimura, T., & Noda, A., Centroid moment tensor inversions of offshore earthquakes using a three-dimensional velocity structure model: Slip distributions on the plate boundary along the Nankai Trough, *Geophysical Journal International*, 220, 1109–1125, August 2020. doi:10.1093/gji/ggaa238
- 15. Aránguiz, R., Esteban, M., Takagi, H., Mikami, T., Takabatake, T., Gomez, M., Gonzalez, J., Shibayama, T., Okuwaki, R., Yagi, Y., Shimizu, K., Achiari, H., Stolle, J., Robertson, I., Ohira, K., Nakamura, R., Nishida, Y., Krautwald, C., Goseberg, N., & Nistor, I., The 2018 Sulawesi tsunami in Palu city as a result of several landslides and coseismic tsunamis, *Coastal Engineering Journal*, 0, 1–15, June 2020. doi:10.1080/21664250.2020.1780719
- Shimizu, K., Yagi, Y., <u>Okuwaki, R.</u>, & Fukahata, Y., Development of an inversion method to extract information on fault geometry from teleseismic data, *Geophysical Journal International*, 220, 1055–1065, February 2020. doi:10.1093/gji/ggz496
- 13. Okuwaki, R., Kasahara, A., Yagi, Y., Hirano, S., & Fukahata, Y., Backprojection to image slip, Geophysical Journal International, 216, 1529–1537, March 2019. doi:10.1093/gji/ggy505

- 12. Aránguiz, R., Urra, L., Okuwaki, R., & Yagi, Y., Development and application of a tsunami fragility curve of the 2015 tsunami in Coquimbo, Chile, Natural Hazards and Earth System Sciences, 18, 2143–2160, August 2018.

 doi:10.5194/nhess-18-2143-2018
- Okuwaki, R., & Yagi, Y., Role of geometric barriers in irregular-rupture evolution during the
 2008 Wenchuan earthquake, Geophysical Journal International, 212, 1657–1664, March 2018.
 doi:10.1093/gji/ggx502
- 10. Okuwaki, R., & Yagi, Y., Rupture Process During the Mw 8.1 2017 Chiapas Mexico Earthquake:

 Shallow Intraplate Normal Faulting by Slab Bending, Geophysical Research Letters, 44, 11816–11823, December 2017.

 doi:10.1002/2017GL075956
 - 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, 68, 9 pages, December 2016. doi:10.1186/s40623-016-0582-2
- 8. Yagi, Y., Okuwaki, R., Enescu, B., Kasahara, A., Miyakawa, A., & Otsubo, M., Rupture process of the 2016 Kumamoto earthquake in relation to the thermal structure around Aso volcano, *Earth, Planets and Space*, 68, 6 pages, July 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 and Applied Geophysics*, 173, 1011–1020, April 2016.
 doi:10.1007/s00024-016-1271-6
- Mai, P. M., Schorlemmer, D., Page, M., Ampuero, J., 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. N. T., Sekiguchi, H., Song, S. G., Somala, S. N., Thingbaijam, K. K. S., Twardzik, C., van Driel, M., Vyas, J. C., Wang, R., Yagi, Y., & Zielke, O., The Earthquake-Source Inversion Validation (SIV) Project, Seismological Research Letters, 87, 690–708, April 2016.
 doi:10.1785/0220150231
- Aránguiz, R., González, G., González, J., Catalán, P. A., 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 and Applied Geophysics, 173, 333–348, February 2016. doi:10.1007/s00024-015-1225-4
- 4. Yagi, Y., & Okuwaki, R., Integrated seismic source model of the 2015 Gorkha, Nepal, earth-quake, *Geophysical Research Letters*, 42, 6229–6235, August 2015. doi:10.1002/2015GL064995
- 3. 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*, 67, 7 pages, June 2015.

 doi:10.1186/s40623-015-0271-6
- 2. 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, *Scientific Reports*, 4, 6 pages, November 2014. doi:10.1038/srep07120
- 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, Geophysical Research Letters, 41, 4201–4206, June 2014. doi:10.1002/2014GL060274

Non-peer reviewed / submitted articles

- Hu, Y., Yagi, Y., Okuwaki, R., & Shimizu, K., Back-propagating rupture evolution within a curved slab during the 2019 Peru intraslab earthquake (submitted). doi:10.31223/x5fg7x
- Hirano, S., & Okuwaki, R., Note on "Backprojection to image slip", September 2020. doi:10.17605/osf.io/pb7hk