

CHANG, Sung-Joon

PRESENT POSITION AND ADDRESS

Associate Professor
Division of Geology and Geophysics
Kangwon National University
Chuncheon, Gangwon-do
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EDUCATION

Ph.D. in Geophysics (Seismology), 2004

Seoul National University, Seoul, South Korea
Thesis Title: Estimation of the Crustal Velocity Structure in Southern Korea
Using Broadband Waveforms

Master of Science in Geophysics, 1997

Seoul National University, Seoul, South Korea
Thesis Title: Joint Inversion of P-SV and SH Type Waveforms for the Boundary Shape
of a Basin Structure

Bachelor of Science in Geology, 1995

Seoul National University, Seoul, South Korea

RESEARCH EXPERIENCE

Associate Professor, 2019-Present

Kangwon National University, Chuncheon, Gangwon-do, South Korea

Assistant Professor, 2013-2019

Kangwon National University, Chuncheon, Gangwon-do, South Korea

Honorary Research Associate, 2014-Present

University College London, London, UK

Senior Research Associate, 2011-2013

University of East Anglia, Norwich, Norfolk, UK

Postdoctoral Researcher, 2006-2011

Northwestern University, Evanston, IL, USA

Editorial Assistant, 2005-2006

Geosciences Journal, The Association of Korean Geoscience Societies

Postdoctoral Researcher, 2004-2006

Seoul National University, Seoul, South Korea

Graduate Research Assistant, 1997-2004

Seoul National University, Seoul, South Korea

KCRT: Refraction Survey to Image Crustal Structure in Korean Peninsula

- Participation in the installation of short-period seismometer arrays to record ground motions induced by artificial explosions.

Visiting Research Student, 2002

Center for Earthquake Research and Information (CERI),
University of Memphis, Memphis TN, USA

- Hosted by Prof. Charles A. Langston for receiver function analysis for the estimation of crustal structure in southern Korea.

TEACHING EXPERIENCE

Teaching Assistant, 1996-1998 at School of Earth and Environmental Sciences, Seoul National University.

Courses: *Seismology & Geodynamics, Gravity & Magnetism*

Guest lecture 2008, 2010, 2011 at Dept. of Earth and Planetary Sciences, Northwestern University

Course: *Advanced Topics in Geophysics* (438)

Classes at Kangwon National University

Physical Geology

Seismology

Physics of Earth's interior

GRADUATE STUDENTS ADVISED AT UEA

Kostas Lentas	2011-2013,	Ph.D. degree,	supervisor: Ana Ferreira
Laura Parisi	2011-2016,	Ph.D. degree,	supervisor: Ana Ferreira
Ana Domingues	2012-2016,	Ph.D. degree,	supervisor: Ana Ferreira

GRADUATE STUDENTS ADVISED AT KNU

Kyungmin Min	2015-2017,	M.S. degree
Seongheum Cho	2015-2017,	M.S. degree
Seolhan You	2015-2017,	M.S. degree
Doyoon Lim	2016-2018,	M.S. degree
Jung-A Lim	2018-2020,	M.S. degree
Yong-Woo Kim	2018-2020,	M.S. degree
Sun-Moo Lee	2019-2021,	M.S. degree
Rin-Hui Kim	2019-present	
Minkyung Kim	2020-present	
Sungwon Kim	2020-present	
Jihun Park	2021-present	
Seyoung Oh	2021-present	
Jiwon Ko	2021-present	
Taeshin Kim	2021-present	

AWARDS & HONORS

Distinguished Research Award, 2019, by Korean Society of Earth and Exploration Geophysicists.
 100 Excellent National R&D Award, 2017, by Ministry of Science and ICT, Korea
 Distinguished Teaching Award, 2017, by Kangwon National University
 Young Scientist Award, 2015, by Korean Society of Earth and Exploration Geophysicists.
 Postdoctoral fellowship, 2006, Granted by Korea Research Foundation.
 BK21 fellowship, 1999-2002, Granted by the Ministry of Education and Human Resources, Korean Government.
 Bachelor Scholarship, 1991-1994, Seoul National University

INVITED TALKS

Korea University, South Korea	May 2019
“Inference on water content in the mantle transition zone near subducted slabs from anisotropy tomography”	
2 nd Asia-Pacific workshop for lithosphere and mantle dynamics	Aug. 2018
“Mantle radial anisotropy beneath subduction zones: New constraints from seismology, geodynamics, and mineral physics”	
PyeongChang Forum 2018	Feb. 2018
“Why are you anxious about Earth’s inside?”	
Collaborative Research in Global Ocean and Subduction-Toward Pacific Array	
Korea-Japan Joint Symposium	Apr. 2017
“Ubiquitous lower mantle anisotropy beneath subduction zones: new rheological and mineralogical constraints”	
Joint symposium of KSEG & KIGAM	Sep. 2016
“Application of earthquakes: A tool for imaging Earth’s interior”	
International Workshop and Conference Commemorating the 20 th Anniversary of EESK	
	Sep. 2016
“Multifaceted aspects of earthquakes: A tool for imaging Earth’s interior”	
11th KINS-NIMR Joint Workshop, Gyeongju, South Korea,	Jul. 2016.
“Mid- and upper-mantle interaction between the Samoan plume and the Tonga-Kermadec slabs”	
King Abdullah University of Science and Technology, Saudi Arabia	Mar. 2015
“The evolution of the African superplume”, presented at Imaging and Active Tectonics of the Red Sea Region workshop, KAUST, Saudi Arabia, Mar 10-13, 2015.	
Yonsei University, South Korea	Dec. 2014
“Mid-mantle interaction between the big, active Samoan plume and the Tonga slab”	
9th KINS-NIMR Joint Workshop, Daejeon, South Korea,	Nov. 2014.
“Global radially anisotropic mantle structure from multiple datasets”	
Seoul National University, South Korea	Jun. 2014
“Global radially anisotropic mantle structure from multiple datasets”	
University College London, United Kingdom	Feb. 2014
“Global radially anisotropic mantle structure from multiple datasets”	
University of Cambridge, United Kingdom	May. 2013
“Mantle plumes and associated flow beneath Arabia and East Africa from joint tomography”	
University of Seoul, South Korea	Dec. 2012
“Mantle plumes and associated flow beneath Arabia and East Africa from joint tomography”	

King Abdullah University of Science and Technology, Saudi Arabia Nov. 2012
 “Mantle plumes and associated flow beneath Arabia and East Africa from joint tomography”
 Kangwon National University, South Korea Jul. 2012
 “Mantle plumes and associated flow beneath Arabia and East Africa from joint tomography”
 Chungnam National University, South Korea Jul. 2012
 “Mantle plumes and associated flow beneath Arabia and East Africa from joint tomography”
 Seoul National University,
 Dept. of Earth Science Education, South Korea Jun. 2012
 “Mantle plumes and associated flow beneath Arabia and East Africa from joint tomography”
 Korea University, South Korea Dec. 2011
 “Mantle plumes and associated flow beneath Arabia and East Africa from joint tomography”
 Seoul National University,
 School of Earth and Environmental Sciences, South Korea Dec. 2011
 “Mantle plumes and associated flow beneath Arabia and East Africa from joint tomography”
 Université Pierre et Marie Curie, France Oct. 2011
 “Mantle plumes and associated flow beneath Arabia and East Africa”
 University of East Anglia, United Kingdom Oct. 2011
 “Peeking into the interior of the Earth: Seismic tomography”
 University of Oklahoma, USA Dec. 2008
 “Peeking into the interior of the Earth: Joint seismic tomography and its application to West Eurasia and North Africa”
 Seoul National University, South Korea Mar. 2005
 “Estimation of crustal velocity structure using seismic waveform analysis”
 Kangwon National University, South Korea Nov. 2004
 “Estimation of the crustal velocity structure in southern Korea using receiver function analysis”
 Korea Institute of Nuclear Safety, South Korea Nov. 2004
 “Estimation of the crustal velocity structure in southern Korea using receiver function analysis”

PROFESSIONAL SERVICE

Reviewer for NSF, Nature Geoscience, Earth and Planetary Science Letters, Journal of Geophysical Research, Geophysical Research Letters, Geophysical Journal International, Tectonophysics, Bulletin of Seismological Society of America, Pure and Applied Geophysics, Journal of Geodynamics, and Arabian Journal of Geosciences.

FUNDED GRANTS AS PI

2019 Research Grant from National Research Foundation
 Study on volcanoes in the Korean Peninsula using anisotropy tomography, 09/01/2019-2/29/2024, \$870,000
 2018 Research Grant from KMITI
 Study on subsurface velocity structure beneath the Ulleung Island using seismic tomography, 7/1/2018-12/31/2020,
 \$310,000
 2015 Research Grant from KMIPA
 Three-dimensional crustal and mantle structure of East Asia, 5/15/2015-5/14/2018,
 \$370,000
 2014 Research Grant from National Research Foundation

- Global radially anisotropic mantle structure from multiple datasets, 11/1/2014-4/30/2017, \$125,000
 2014 Research Grant from CATER
 Crustal structure estimation using surface-wave group velocities, 9/1/2014-8/30/2015, \$105,000
 2013 Research Grant from Kangwon National University
 Global radially anisotropic mantle structure from multiple datasets, 10/1/2013-9/30/2014, \$30,000
 BAA11-24 Simultaneous Inversion for Three-Dimensional Velocity Structure and Seismic Discontinuities Beneath Eastern Asia Using Gravity and Multiple Seismic Data (co-PI and Proposal preparer) funded by DOE/NNSA, 3/14/2011-3/13/2014, \$207,620

PEER-REVIEWED PUBLICATIONS

1. Kim, Y.-W., **S.-J. Chang**, M. Witek, J. Ning, and J. Wen (2021), S-velocity mantle structure of East Asia from teleseismic traveltimes tomography: Inferred mechanisms for the Cenozoic intraplate volcanoes, *J. Geophys. Res.*, 126, e2020JB020345. <https://doi.org/10.1029/2020JB020345>.
2. **Chang, S.-J.**, E. Kendall, A. Davaille, and A.M.G. Ferreira (2020), The evolution of mantle plumes in East Africa, *J. Geophys. Res.*, 125, e2020JB019929. <https://doi.org/10.1029/2020JB019929>.
3. Lim, J.-A., **S.-J. Chang**, P.M. Mai, and H. Zahran (2020), Asthenospheric flow of plume material beneath Arabia inferred from S-wave traveltimes tomography, *J. Geophys. Res.*, 125, e2020JB019668. <https://doi.org/10.1029/2020JB019668>.
4. Kim, K.Y., Y. Song, J. Byun, and **S.-J. Chang** (2020), Non-reflection events and common-midpoint range for virtual PP reflection images, *J. Geol. Soc. Korea*, 56, 355-364 (in Korean with English abstract).
5. Lee, S.-M., and **S.-J. Chang** (2019), A study on the dependence of focal depth of the 2017 Pohang earthquake on crustal velocity models using moment tensor inversion, *J. Geol. Soc. Korea*, 55, 649-662 (in Korean with English abstract).
6. Sturgeon, W., A.M.G. Ferreira, M. Faccenda, **S.-J. Chang**, and L. Schardong (2019), On the origin of radial anisotropy near subducted slabs in the mid-mantle, *Geochem. Geophys. Geosyst.* 20, <https://doi.org/10.1029/2019GC008462>.
7. Ferreira, A.M.G., M. Faccenda, W. Sturgeon, **S.-J. Chang**, and L. Schardong (2019), Ubiquitous lower-mantle anisotropy beneath subduction zones, *Nature Geoscience*, 12, 301-306.
8. **Chang, S.-J.**, and A. Ferreira (2019), Inference on water content in the mantle transition zone near subducted slabs from anisotropy tomography, *Geochem. Geophys. Geosyst.*, 20, 1189-1201.
9. Kim, R.-H., **S.-J. Chang**, M. Mai, and H. Zahran (2019), S-wave velocity structure and radial anisotropy of Saudi Arabia from surface wave tomography, *Geophys. Geophys. Explor.*, 22, 21-28 (in Korean with English abstract).
10. Witek, M., S. van der Lee, T.-S. Kang, **S.-J. Chang**, J. Ning, and S. Ning (2018), S-velocity model of East Asia from a cluster analysis of localized dispersion, *J. Geophys. Res.* 123, 9712-9732.
11. Tang, Z., M. Mai, **S.-J. Chang** and H. Zahran (2018), Evidence for shallow low shear-wave speed in western Saudi Arabia from multi-scale fundamental-mode Rayleigh-wave group-velocity tomography, *Earth Planet. Sci. Lett.* 495, 24-37.

12. Kim, Y.-W., H.-J. Kim, J.-A. Lim, and **S.-J. Chang** (2018), S-wave relative travel time tomography for Northeast China, *Geophys. Geophys. Explor.* 21, 26-32 (in Korean with English abstract).
13. Lim, D.Y., and **S.-J. Chang** (2018), Three-dimensional S-wave velocity structure and radial anisotropy of crust and uppermost mantle beneath East Asia, *Geophys. Geophys. Explor.* 21, 33-40 (in Korean with English abstract).
14. **Chang, S.-J.**, and A. Ferreira (2017), Improving global radial anisotropy tomography: the importance of simultaneously inverting for crustal and mantle structure, *Bull. Seism Soc. Am.*, 107, 624-638.
15. Min, K., and **S.-J. Chang** (2017), 3D SH-wave velocity structure of East Asia using Love-wave tomography and implication on radial anisotropy, *Geophys. Geophys. Explor.* 20, 25-32 (in Korean with English abstract).
16. Cho, S., and **S.-J. Chang** (2017), S-wave relative travel time tomography for East Asia, *Geophys. Geophys. Explor.* 20, 18-24 (in Korean with English abstract).
17. You, S.-H., and **S.-J. Chang** (2017), 3D SV-wave velocity structure of East Asia using Rayleigh-wave tomography, *Geophys. Geophys. Explor.* 20, 12-17 (in Korean with English abstract).
18. Domingues, A., Graça Silveira, Ana M.G. Ferreira, **S.-J. Chang**, Susana Custódio, and João F.B.D. Fonseca (2016), Ambient noise tomography of the East African Rift in Mozambique, *Geophys. J. Int.* 204, 1565-1578.
19. **Chang, S.-J.**, A. Ferreira, and M. Faccenda (2016), Upper- and mid-mantle interaction between the Samoan plume and the Tonga-Kermadec slabs, *Nature Communications*, 7, doi:10.1038/ncomms10799.
20. Huang, H., N. Tosi, **S.-J. Chang**, S. Xia, and X. Qiu (2015), Receiver function imaging of the mantle transition zone beneath the South China Block, *Geochem. Geophys. Geosyst.*, 16, doi:10.1002/2015GC005978.
21. **Chang, S.-J.**, A. Ferreira, J. Ritsema, H. J. van Heijst, and J. H. Woodhouse (2015), Joint inversion for global isotropic and radially anisotropic mantle structure including crustal thickness perturbations, *J. Geophys. Res.*, 120, doi:10.1002/2014JB011824.
22. **Chang, S.-J.**, S. Van der Lee, and M. P. Flanagan (2014), Validation of regional travel time predictions along the Tethyan margin for three P-velocity models built with different approaches, *Bull. Seism Soc. Am.*, 104, 1525-1532.
23. **Chang, S.-J.**, A. Ferreira, J. Ritsema, H. J. van Heijst, and J. H. Woodhouse (2014), Global Radially Anisotropic Mantle Structure from Multiple Datasets: A Review, Current Challenges, and Outlook, *Tectonophysics*, 617, doi:10.1016/j.tecto.2014.01.033. (Invited review paper)
24. **Chang, S.-J.**, S. Van der Lee, and M. P. Flanagan (2012), A new P-velocity model for the Tethyan margin from a scaled S-velocity model and the inversion of regional and teleseismic P- and PKP-delay times, *Phys. Earth Planet. Inter.*, 210, 1-7, doi:10.1016/j.pepi.2012.08.005.
25. **Chang, S.-J.**, M. Merino, S. Van der Lee, S. Stein, and C. Stein (2011), Mantle flow beneath Arabia offset from the opening Red Sea, *Geophys. Res. Lett.*, 38, L04301, doi:10.1029/2010GL045852.
26. **Chang, S.-J.** and S. Van der Lee (2011), Mantle plumes and associated flow beneath Arabia and East Africa, *Earth Planet. Sci. Lett.*, 302, 448-454, doi:10.1016/j.epsl.2010.12.050.
27. Salah, M. K., **S.-J. Chang**, and J. F. B. D. Fonseca (2011), Crustal structure beneath the Lower Tagus Valley, southwestern Iberia using joint analysis of teleseismic receiver functions

- and surface-wave dispersion, *Geophys. J. Int.*, *184*, 919-933, doi:10.1111/j.1365-246X.2010.04891.x.
28. **Chang, S.-J.**, S. Van der Lee, S., M. P. Flanagan, H. Bedle, F. Marone, E. M. Matzel, M. E. Pasyanos, A. Rodgers, B. Romanowicz, and C. Schmid (2010), Joint Inversion for 3-dimensional S-velocity mantle structure along the Tethyan margin, *J. Geophys. Res.*, *115*, B08309, doi:10.1029/2009JB007204.
 29. **Chang, S.-J.** S. Van der Lee, E. Matzel, and H. Bedle (2010), Radial anisotropy along the Tethyan margin, *Geophys. J. Int.*, *182*, 1013-1024, doi:10.1111/j.1365-246X.2010.04662.x.
 30. **Chang, S.-J.** and C. -E. Baag (2007), Moho depth and crustal Vp/Vs variation in southern Korea from teleseismic receiver functions: implication for tectonic affinity between the Korean Peninsula and China, *Bull. Seism. Soc. Am.*, *97*, 1621-1631.
 31. **Chang, S.-J.** and C.-E. Baag (2006), Crustal structure in southern Korea from joint analysis of regional broadband waveforms and travel times, *Bull. Seism. Soc. Am.*, *96*, 856-870.
 32. **Chang, S.-J.** and C.-E. Baag (2005), Crustal structure in southern Korea from joint analysis of teleseismic receiver functions and surface wave dispersion, *Bull. Seism. Soc. Am.*, *95*, 1516-1534.
 33. **Chang, S.-J.**, C.-E. Baag, and C. A. Langston (2004), Joint analysis of teleseismic receiver functions and surface wave dispersion using the genetic algorithm, *Bull. Seism. Soc. Am.*, *94*, 691-704.

OTHER PUBLICATIONS

1. Van der Lee, S., **S.-J. Chang**, M. Witek, T.S. Kang, and M. Feng (2012), Joint inversion of multiple seismic data for three-dimensional velocity structure beneath southern and eastern Asia, *Conference Proceedings of the 34th Monitoring Research Review*, Nuclear Explosion Monitoring, Albuquerque, New Mexico, September 18-20, 2012, 6pp.
2. Flanagan, M. P., S. Van der Lee, S. C. Myers, **S.-J. Chang**, and M. E. Pasyanos (2009), Regional travel-time and location uncertainty assessment along the Tethyan margin using a new three-dimensional P-velocity model, *Conference Proceedings of the 31st Monitoring Research Review*, Nuclear Explosion Monitoring, Tucson, Arizona, September 21-23, 2009, 10pp.
3. **Chang, S.-J.**, M. P. Flanagan, S. Van der Lee, E. M. Matzel, and M. E. Pasyanos (2008), Evaluation of regional travel-time and location improvement along the Tethyan margin using a new three-dimensional velocity model, *Conference Proceedings of the 30th Monitoring Research Review*, Nuclear Explosion Monitoring, Portsmouth, VA, September 23-25, 2008, 10pp.
4. Van der Lee, S., **S.-J. Chang**, M. P. Flanagan, H. Bedle, F. Marone, E. M. Matzel, M. E. Pasyanos, A. Rodgers, B. Romanowicz, and C. Schmid (2007), Joint inversion for 3-dimensional mantle structure along the Tethyan margin, *Conference Proceedings of the 29th Monitoring Research Review*, Nuclear Explosion Monitoring, Denver, CO, September 25-27, 2007, 10pp.
5. Lee, D.-S., J. Ji, Y.-J. Yoo, and **S.-J. Chang** (1997), Fracture characterization using inverse VSP and crosswell seismic technology, *Proceeding of the Korean Geotechnical Society Fall 97 National conference*, 253-260, Seoul, Korea, Oct. 24-25, 1997, 8pp.

PRESENTATIONS

- Lee, S.-M., and **S.-J. Chang**, A study on the focal depth of the 2017 Pohang earthquake using moment tensor inversion, *Fall Joint Annual Conference of the Geological Societies in Korea*, Jeju, Jeju-do, South Korea, Oct 23-Oct. 26, 2019.
- Kim, Y.-W., **S.-J. Chang**, M. Witek, J. Ning, and J. Wen, Mantle upwelling beneath intraplate volcanoes in East Asia from S-wave travel time tomography, *Fall Joint Annual Conference of the Geological Societies in Korea*, Jeju, Jeju-do, South Korea, Oct 23-Oct. 26, 2019.
- Lim, J.A., **S.-J. Chang**, P.M. Mai, and H.M. Zahran, Asthenospheric flow of plume materials beneath Arabia and East Africa from S-wave travel time tomography: Implication for the seismic swarm in Harrat Lunayyir, *Fall Joint Annual Conference of the Geological Societies in Korea*, Jeju, Jeju-do, South Korea, Oct 23-Oct. 26, 2019.
- Kim, R., **S.-J. Chang**, M. Witek, P.M. Mai, and H.M. Zahran, S-velocity isotropic and radially anisotropic mantle structure beneath the Arabian Peninsula and East Africa using multi-mode dispersion curves, *Fall Joint Annual Conference of the Geological Societies in Korea*, Jeju, Jeju-do, South Korea, Oct 23-Oct. 26, 2019.
- Ferreira, A.M.G., E. Kendall, **S.-J. Chang**, and D. Peter, Full-waveform modelling of 3-D seismic anisotropy at Pacific lithosphere-asthenosphere depths, Abstract EGU2019-13198 presented at *2019 General Assembly, European Geosciences Union*, Vienna, 7-12 April 2019.
- Witek, M., D.Y. Lim, **S.-J. Chang**, J. Ning and S. Ning, Towards a model of radial anisotropy in the East Asian lithosphere, Abstract DI12A-02 presented at 2018 Fall Meeting, *American Geophysical Union*, Washington, D.C., Dec 10-14, 2018.
- Kim, Y.W., **S.-J. Chang**, J. Ning and J. Wen, S-wave relative travel time tomography for mantle structure beneath East Asia, Abstract T43F-0477 presented at 2018 Fall Meeting, *American Geophysical Union*, Washington, D.C., Dec 10-14, 2018.
- Lim, J.A., **S.-J. Chang**, P.M. Mai, and H.M. Zahran, Preliminary upper mantle structure beneath the Arabian Peninsula and East Africa from S-wave relative travel time tomography, Abstract T43G-0490 presented at 2018 Fall Meeting, *American Geophysical Union*, Washington, D.C., Dec 10-14, 2018.
- Chang, S.-J.**, A.M.G. Ferreira, and M. Faccenda, Mantle radial anisotropy beneath subduction zones: new constraints from seismology, geodynamics, and mineral physics (Invited), Abstract DI44A-05 presented at 2018 Fall Meeting, *American Geophysical Union*, Washington, D.C., Dec 10-14, 2018.
- Lim, J.A., **S.-J. Chang**, P.M. Mai, and H.M. Zahran, Preliminary upper mantle structure beneath the Arabian Peninsula and East Africa from S-wave relative travel time tomography, *Fall Joint Annual Conference of the Geological Societies in Korea*, Gyeongju, Gyeongsangbuk-do, South Korea, Oct 24-Oct. 27, 2018.
- Chang, S.-J.** and A.M.G. Ferreira, Constraints on water content in the mantle transition zone from seismic anisotropy, Presented at 2018 AOGS Meeting, *Asia Oceania Geoscience Society*, Honolulu, Hawaii, Jun 3-8, 2018.
- Chang, S.-J.** and A.M.G. Ferreira, Radial anisotropy in the mantle transition zone and its implications, Abstract DI52A-01 presented at 2017 Fall Meeting, *American Geophysical Union*, New Orleans, Louisiana, Dec 11-15, 2017.
- Kendall, E., A.M.G. Ferreira and **S.-J. Chang**, Waveform modelling of 3-D seismic anisotropy in the Earth's mantle, Abstract DI43B-0354 presented at 2017 Fall Meeting, *American Geophysical Union*, New Orleans, Louisiana, Dec 11-15, 2017.
- Witek, M., S. van der Lee, T.-S. Kang, **S.-J. Chang**, J. Ning and S. Ning, Cluster analysis applied to localized dispersion curves in East Asia: the limits of surface wave resolution, Abstract

- DI51D-0639 presented at 2017 Fall Meeting, *American Geophysical Union*, New Orleans, Louisiana, Dec 11-15, 2017.
- Lim, D.Y., and **S.-J. Chang**, Three-dimensional S-wave velocity structure and radial anisotropy of crust and uppermost mantle beneath East Asia, *Fall Joint Annual Conference of the Geological Societies in Korea*, Seoguipo, Jeju-do, South Korea, Oct 25-Oct. 28, 2017.
- Kim, Y.W., H.J. Kim, J.A. Lim, and **S.-J. Chang**, Relative travel time tomography for Northeast China, *Fall Joint Annual Conference of the Geological Societies in Korea*, Seoguipo, Jeju-do, South Korea, Oct 25-Oct. 28, 2017.
- Chang, S.-J.**, A.M.G. Ferreira, and M. Faccenda, Ubiquitous mid mantle anisotropy around subduction zones, *Gordon Research Conference*, Mt. Holyoke College, South Hadley, Massachusetts, USA, June 4-9, 2017.
- Ferreira, A.M.G., M. Faccenda, **S.-J. Chang**, W. Sturgeon, and L. Schardong, Global radial anisotropy in the Earth's mantle: new constraints from seismology and geodynamics, Abstract EGU2017-5944 presented at *2017 General Assembly, European Geosciences Union*, Vienna, 23-28 April 2017.
- Tang, Z., P.M. Mai, **S.-J. Chang**, and H. Zahran, Rayleigh-wave group-velocity tomography of Saudi Arabia, Abstract EGU2017-6285 presented at *2017 General Assembly, European Geosciences Union*, Vienna, 23-28 April 2017.
- Min, K.M., S.H. Yu and **S.-J. Chang**, 3D S-wave velocity structure and radial anisotropy of East Asia using surface wave tomography, Abstract T23B-2934 presented at 2016 Fall Meeting, *American Geophysical Union*, San Francisco, California, Dec 12-16, 2016.
- Cho, S.H., and **S.-J. Chang**, Relative travel time tomography for East Asia, Abstract T23B-2935 presented at 2016 Fall Meeting, *American Geophysical Union*, San Francisco, California, Dec 12-16, 2016.
- Ferreira, A.M.G., M. Faccenda, **S.-J. Chang**, W. Sturgeon, and L. Schardong, Ubiquitous lower mantle anisotropy beneath subduction zones: new rheological and mineralogical constraints, Abstract DI22A-04 presented at 2016 Fall Meeting, *American Geophysical Union*, San Francisco, California, Dec 12-16, 2016.
- Min, K.M., S.H. Yu and **S.-J. Chang**, 3D S-wave velocity structure and radial anisotropy of East Asia using surface wave tomography, *Fall Joint Annual Conference of the Geological Societies in Korea*, Pyungchang, Gangwon-do, South Korea, Oct 26-Oct. 29, 2016.
- Cho, S.H., and **S.-J. Chang**, Relative travel time tomography for East Asia, *Fall Joint Annual Conference of the Geological Societies in Korea*, Pyungchang, Gangwon-do, South Korea, Oct 26-Oct. 29, 2016.
- Chang, S.-J.**, Understanding Earthquakes and its applications: a tool for imaging Earth's interior, *KSEG-KIGAM Joint Symposium*, Seoul, South Korea, Sep. 22, 2016.
- Chang, S.-J.**, Multifaceted aspects of earthquakes: a tool for imaging Earth's interior, *International workshop of the Earthquake Engineering Society of Korea*, Seoul, South Korea, Sep. 22, 2016.
- Chang, S.-J.**, A.M.G. Ferreira, and Manuele Faccenda, Mid-mantle interaction between the big, active Samoan plume and the Tonga-Kermadec slabs, Abstract DI21B-07 presented at 2015 Fall Meeting, *American Geophysical Union*, San Francisco, California, Dec 14-18, 2015.
- Ferreira, A.M.G., and **S.-J. Chang**, SGLOBE-rani: a new global whole-mantle model of isotropic and radially anisotropic shear-wave velocity structure, Abstract DI13C-02 presented at 2015 Fall Meeting, *American Geophysical Union*, San Francisco, California, Dec 14-18, 2015.

- Huang, H., N. Tosi, **S.-J. Chang**, S. Xia, and X. Qiu, Receiver function imaging of the mantle transition zone beneath the South China Block, Abstract DI41A-2586 presented at 2015 Fall Meeting, *American Geophysical Union*, San Francisco, California, Dec 14-18, 2015.
- Chang, S.-J.**, A.M.G. Ferreira, and M. Faccenda, Mid-mantle interaction between the big, active Samoan plume and the Tonga-Kermadec slabs, *Fall Joint Annual Conference of the Geological Societies in Korea*, Jeju-si, Jeju-do, South Korea, Oct 27-Oct. 31, 2015.
- Witek, M., S. Ning, T.-S. Kang, S. Van der Lee, **S.-J. Chang**, and J. Ning, S-velocity structure of the crust and uppermost mantle of East Asia from ambient seismic noise, Abstract SE01-A018 presented at *2015 Annual Meeting, Asia Oceania Geosciences Society*, Singapore, August 2-7, 2015
- Chang, S.-J.** A.M.G. Ferreira, and M. Faccenda, Mid-mantle interaction between the big, active Samoan plume and the Tonga-Kermadec slab, *Gordon Research Conference*, Mt. Holyoke College, South Hadley, Massachusetts, USA, June 7-12, 2015.
- Witek, M., S. Ning, T.-S. Kang, S. Van der Lee, **S.-J. Chang**, and J. Ning, S-velocity structure of the crust and uppermost mantle of East Asia from ambient seismic noise, Abstract SIT03-P05 presented at *2015 Annual Meeting, Japan Geoscience Union*, Chiba, Japan, May 24-28, 2015
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