
Won Sang Lee

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RESEARCH INTERESTS

I lead international research on Antarctic ice-ocean interaction, focusing on how warm ocean water reaches grounding zones, drives ice-shelf basal melting, and contributes to future sea-level rise. As a Principal Research Scientist at the Korea Polar Research Institute (KOPRI), I have participated in more than 16 Antarctic expeditions and have led large, complex field programs in some of the most logistically demanding environments on Earth. My research combines field observations, advanced technologies, and process-based analysis to better understand grounding-zone dynamics, ice-shelf stability, and polar change, with current focus on Terra Nova Bay, Thwaites Glacier, and the Getz Ice Shelf system. I am developing an integrated polar research program that links autonomous observing systems, under-ice exploration, and data-driven approaches to reduce uncertainty in ice-ocean change and sea-level rise. While Antarctica remains the scientific core of my work, I am extending this framework to Arctic environments to strengthen comparative polar science and leadership in integrated polar research. More broadly, I aim to build a durable, internationally connected research program that advances frontier science, technology innovation, future polar research leadership, and societal readiness for climate-driven polar change.

CONTACTS

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EMPLOYMENT

03/13 – present	<u>Principal Research Scientist</u> , Korea Polar Research Institute, Incheon, Korea
10/20 – 12/23	<u>Director</u> , Division of Glacial Environment Research, Korea Polar Research Institute, Incheon, Korea
08/16 – 10/20	<u>Unit Director</u> , Unit of Ice Sheet and Sea Level Changes, Korea Polar Research Institute, Incheon, Korea
09/15 – 08/18	<u>Professor</u> , Polar Sciences, University of Science and Technology, Korea
08/15 – 08/16	<u>Head</u> , Department of Polar Geophysics, Division of Polar Earth-System Sciences, Korea Polar Research Institute, Incheon, Korea
09/12 – 08/15	<u>Associate Professor</u> , Polar Sciences, University of Science and Technology, Korea
10/06 – 02/13	<u>Senior Research Scientist</u> , Korea Polar Research Institute, Incheon, Korea
10/04 – 09/06	<u>Postdoctoral Fellow</u> , Tohoku University, Sendai, Japan (Supervised by Prof. Haruo Sato)

EDUCATION

03/99 – 08/04	<u>Ph.D. in Geophysics</u> (Supervised by Prof. Kiehwa Lee) Seoul National University, Seoul, Korea
07/03 – 08/03	<u>Special Research Graduate Student</u> (Supervised by Prof. Haruo Sato) Tohoku University, Sendai, Japan
10/01 – 08/02	<u>Special Research Graduate Student</u> (Supervised by Prof. Haruo Sato) Tohoku University, Sendai, Japan
03/97 – 02/99	<u>MS in Geophysics</u> (Supervised by Prof. Kiehwa Lee) Seoul National University, Seoul, Korea
03/93 – 02/97	<u>BS in Geological Science</u> Seoul National University, Seoul, Korea

PROFESSIONAL EXPERIENCE

- 07/19 – 08/19 Visiting Scholar, University of Melbourne, Melbourne, Australia (Hosted by Prof. Dongryeol Ryu)
- 02/09 – 03/09 Guest Investigator, Woods Hole Oceanographic Institution (WHOI), Woods Hole, MA, USA (Hosted by Dr. Jian Lin)
- 09/08 – 09/08 Visiting Scientist, Pacific Marine Environmental Laboratory/NOAA, Newport, OR, USA (Hosted by Prof. Robert P. Dziak)
- 06/07 – 11/07 Visiting Scientist, Pacific Marine Environmental Laboratory/NOAA, Newport, OR, USA (Hosted by Prof. Robert P. Dziak)
- 05/99 – 07/01 Seismic Wave Analyst (Sergeant), Tunnel Detection Section, Republic of Korea Army, Korea

TEACHING EXPERIENCE

- 09/16 – 12/16 Lecturer, Understanding Climate Change, Underwood International College, Yonsei University, Korea
- 03/97 – 05/99 Teaching Assistant, School of Earth and Environmental Sciences, Seoul National University, Seoul, Korea

SERVICES

- 06/25 – present Expert Reviewer, *KISTEP Technology Evaluation Panel, Ministry of Science and ICT*
- 03/25 – present Expert Committee Member, *Earthquake and Volcanic Disaster Prevention Policy, Ministry of the Interior and Safety*
- 11/24 – present National Correspondent, *International Association of Cryospheric Sciences (IACS), International Union of Geodesy and Geophysics (IUGG)*
- 11/24 – present Member, *Amundsen and Bellingshausen Sector (ABS) Regional Working Group (RWG) Leadership Team, Southern Ocean Observing System (SOOS)*
- 11/23 – 12/24 Chair, *Local Organizing Committee (Media and Communication), Busan IAMAS-IACS-IAPSO Joint Assembly 2025 (BACO-25), Busan*
- 10/22 – present Advisor, *Advisory Committee, Association of Polar Early Career Scientists (APECS)*
- 10/22 – present Co-chair with Sandy Lucas, *Polar Panel under MOF-NOAA Joint Project Agreement (JPA)*
- 04/22 – 08/24 Member, *Local Organizing Committee (Financing subcommittee), The 37th International Geological Congress 2024 (IGC2024), Busan*
- 01/22 – 12/23 Expert Advisor, *IOC/UN Decade Subcommittee of the Korean Oceanographic Commission*
- 11/21 – 12/23 Member, *Climate Change Response Task Force, Ministry of Oceans and Fisheries (MOF)*
- 10/21 – 10/23 Chair, *Section of Cryosphere and Polar regions, The Geological Society of Korea*
- 07/21 – present Associate Editor, *Frontiers in Marine Science (Ocean observation)*
- 05/19 – 07/22 Co-chair with Karen Heywood, Anna Wählin, and Guy Williams, *The SOOS (Southern Ocean Observing System) Polar AUV (Autonomous Underwater Vehicle) Task Team*
- 07/18 – 06/23 Expert Reviewer, *KISTEP Technology Evaluation Panel, Ministry of Science and Technology Information and Communication*
- 03/17 – 10/19 Member, *Korean Government Delegation of IPCC*
- 05/16 – present Co-lead with Donald Blankenship, Giorgio Budillon, Craig Stevens, Christine Dow, Robert Dziak, Alexander Forrest, Guy Williams, and Christopher Zappa, *The international consortium for Land-Ice/Ocean Network Exploration with Semiautonomous Systems (LIONESS)*
- 09/15 – present Civilian Expert, *Integrated Weapon System Test and Evaluation Team, Joint Chiefs of Staff, Ministry of National Defense*

PROJECTS

(USD 1 = KRW 1K)

- 04/26 – 03/29 SYNCHRONY, *Horizon Europe, European Commission* (International Participant)
- 04/23 – 12/31 Korea Network for Observation and prediction of ice sheet and sea level changes in a Warming world (K-NOW) (USD 43M–9 years), *Korean Ministry of Oceans and Fisheries* (PI)
- 11/22 – 10/26 OCEAN:ICE, *Horizon Europe, European Commission and UKRI* (International Collaborator)
- 01/22 – 12/22 Korea-Norway Partnership Cooperation for High-resolution Mapping of Ice Sheet Margin, Antarctica (USD 15K), *National Research Foundation of Korea* (PI)
- 01/21 – 12/24 Australian Center for Excellence in Antarctic Science (ACEAS) (AUD 25M–4 years), *Australian Research Council, Australian Government* (Partner Investigator)
- 04/18 – 12/24 International Thwaites Glacier Collaboration (ITGC) (USD 50M–5 years), *NSF (US)-NERC (UK)* (LIONESS-TG is participating in the ITGC as ‘International Partner’ since June 2019)
- 06/19 – 05/23 Land-Ice/Ocean Network Exploration with Semiautonomous Systems: Thwaites Glacier (LIONESS-TG) (USD 20M–4 years), *Korean Ministry of Oceans and Fisheries* (PI)
- 01/19 – present International Collaborative Exploration of the Cryosphere through Airborne Profiling-East Antarctic Grounding Line Experiment (ICECAP-EAGLE), *Australian Antarctic Program* (Co-investigator)
- 09/14 – 05/19 Investigation of Cryospheric Evolution in the Victoria Land, Antarctica (USD 10.5M–5 years), *Korean Ministry of Oceans and Fisheries* (PI)
- 08/12 – 12/13 Interaction between cryosphere and lithosphere near the Jang Bogo Station: Integrated monitoring system for the David Glacier and study on evolution of the glacier (USD 4.5M–2 years), *Korea Polar Research Institute* (PI)
- 03/12 – 02/15 A study of T-wave generation modeling using scattering theory (USD 195K–3 years), *Center of Atmospheric Sciences and Earthquake Research, Korea Meteorological Administration* (PI)
- 01/11 – 07/12 Interaction between cryosphere and lithosphere near the Jang Bogo Station: Integrated monitoring system for the David Glacier and study on evolution of the glacier, *Korea Polar Research Institute* (CI)
- 06/10 – 05/13 Investigation of submarine tectonic activity using ocean bottom seismographs (OBSs), Antarctica (USD 210K–3 years), *Korea Polar Research Institute* (PI)
- 03/10 – 02/12 Attenuation structure in the Korean Peninsula using multiple scattering theory (USD 200K–2 years), *Center of Atmospheric Sciences and Earthquake Research, Korea Meteorological Administration* (PI)
- 04/09 – 03/12 Analysis of hydroacoustic data and its application to CTBT (USD 90K–3 years), *Korea Institute of Geology, Mining and Materials* (PI)
- 06/08 – 04/09 Attenuation structure in the Korean Peninsula using multiple scattering theory (USD 100K), *Center of Atmospheric Sciences and Earthquake Research, Korea Meteorological Administration* (PI)
- 11/06 – 03/08 Numerical simulation for understanding the T-wave generation mechanism through the multiple scattering theory (USD 20K), *Korea Polar Research Institute* (PI)

FIELD EXPERIENCE (16 X ANTARCTICA, 1 X GREENLAND)

- 12/25 – 02/26 39th Antarctic Summer Expedition, Chief Scientist, LIONESS/K-NOW, Thwaites Glacier, Antarctica (*IBRV Araon*)
- 12/23 – 02/24 37th Antarctic Summer Expedition, Chief Scientist, LIONESS/K-NOW, Thwaites Glacier, Antarctica (*IBRV Araon*)

- 01/22 – 02/22 35th Antarctic Summer Expedition, Chief Scientist, LIONESS/TG, Thwaites Glacier, Antarctica (*IBRV Araon*)
- 12/19 – 02/20 33rd Antarctic Summer Expedition, Chief Scientist, LIONESS/TG, Thwaites Glacier, Antarctica (*IBRV Araon*)
- 10/17 – 11/17 31st Antarctic Summer Expedition, Lead Scientist, Onshore field operations for maintaining geophysical observation network (Seismic, AMIGOS, GPS stations, etc.) in the Northern Victoria Land, Antarctica
- 01/17 – 03/17 30th Antarctic Summer Expedition, Chief Scientist, LIONESS/WRS, Integrated cryosphere observation in the Terra Nova Bay, Antarctica (*IBRV Araon*)
- 11/15 – 12/15 29th Antarctic Summer Expedition, Lead Scientist, Onshore field operations for maintaining geophysical observation network (Seismic, AMIGOS, GPS stations, etc.) in the Northern Victoria Land, Antarctica
- 11/14 – 12/14 28th Antarctic Summer Expedition, Chief Scientist, Recovery of OBSs and an OBH, and Deployment of oceanographic moorings near the Drygalski Ice Tongue, Antarctica (*IBRV Araon*)
- 11/13 – 12/13 27th Antarctic Summer Expedition, Lead Scientist, Onshore field operations for maintaining geophysical observation network (Seismic, AMIGOS, GPS stations, etc.) in the Northern Victoria Land, Antarctica
- 08/13 – 08/13 Participation in GLISN, Lead Scientist, Installation of a real-time broadband seismic station in Upernavik, Greenland
- 04/13 – 05/13 26th Antarctic Summer Expedition, Lead Scientist, Installation of seismic stations, K-AMIGOS stations, and High-definition lapse-time camera in the Antarctic Peninsula, Antarctica (*IBRV Araon*)
- 12/11 – 01/12 25th Antarctic Summer Expedition, Recovery of seismic data (Jang Bogo station), Deployment of OBSs in the Ross Sea, Antarctica (*IBRV Araon*)
- 12/10 – 12/10 24th Antarctic Summer Expedition, Recovery of hydrophones in the Bransfield Strait, Seismic survey, Antarctica (*IBRV Araon*)
- 01/10 – 01/10 23rd Antarctic Summer Expedition, Recovery, re-deployment of hydrophones and Reflection Seismic Survey in the Bransfield Strait, Antarctica (*RRS James Clark Ross*)
- 10/09 – 10/09 Test cruise in the East Sea, Calibration oceanographic equipment (EM122, SBP, EA600), South Korea (*IBRV Araon*)
- 11/08 – 12/08 22nd Antarctic Summer Expedition, Deployment of hydrophones in the Bransfield Strait, MAPR survey, Antarctica (*R/V Yuzhmorgeologiya*)
- 11/07 – 01/08 21st Antarctic Summer Expedition, Recovery, re-deployment and preliminary data analysis of hydrophones in the Bransfield Strait and the Scotia Sea, Antarctica (*R/V Yuzhmorgeologiya*)
- 11/06 – 12/06 20th Antarctic Summer Expedition, Recovery and re-deployment of hydrophones in the Bransfield Strait, Antarctica; Reflection Seismic Survey in the Drake Passage, Antarctica (*R/V Yuzhmorgeologiya*)

AWARDS AND HONORS

- 05/24 Presidential Citation, for the recognition of advancement in Ocean Sciences, Ministry of the Interior and Safety
- 10/04 Grant-in-Aid for Scientific Research, Japan Society for the Promotion of Science (JSPS, Two-year grant)
- 10/04 Postdoctoral Fellowships for Foreign Researchers, Japan Society for the Promotion of Science (JSPS, Two-year grant)
- 01/03 Outstanding Student Paper Award (AGU 2002 Fall Meeting), American Geophysical Union

DATA PRODUCTS

[2025]

5. Cornelissen, L., S. Yun, J. McInerney, B. Grant, F. Elliott, S. -T. Yoon, C. Zappa, **W. S. Lee**, and C. Stevens (2025), A decade-long hydrographic mooring dataset near the Drygalski Ice Tongue, Terra Nova bay, Antarctica, *SEANOE*, <https://doi.org/10.17882/102640>.

[2024]

4. Zhou, S., P. Dutrieux, C. Giulivi, A. Silvano, C. Auckland, P. Abrahamsen, M. Meredith, I. Vanková, K. Nicholls, S. Østerhus, A. Gordon, T. Sebaginazzi Dotto, T. Scambos, K. Gunn, S. Rintoul, S. Aoki, C. Stevens, C. Liu, T. -W. Kim, and **W. S. Lee** (2024), Southern Ocean moored time series (south of 60°S) version 1 (OCEAN:ICE D1.1), *SEANOE*, <https://doi.org/10.17882/99922>.
3. Zhou, S., P. Dutrieux, C. Giulivi, **W. S. Lee**, T. -W. Kim, T. Hattermann, and M. Janout, (2024), Southern Ocean (90°S-45°S) conservative temperature and absolute salinity profiles compilation (OCEAN ICE D1.1), *SEANOE*, <https://doi.org/10.17882/99787>.

[2020]

2. **Lee, W. S.**, J. I. Lee, L. E. Lindzey, L. H. Beem, D. A. Young, E. Quartini, D. D. Blankenship, C.-K. Lee, J. Lee, and S. D. Kempf (2020) Aerogeophysical characterization of an active subglacial lake system in the David Glacier catchment, Antarctica (Version 55 1.0.0), *Zenodo*, <https://doi.org/10.5281/zenodo.3778452>.
1. **Lee, W. S.**, J. I. Lee, L. E. Lindzey, L. H. Beem, D. A. Young, E. Quartini, D. D. Blankenship, C.-K. Lee, J. Lee, and S. D. Kempf (2020), Radar observations of an active subglacial lake system in the David Glacier catchment, Antarctica, *Zenodo*, <https://doi.org/10.5281/zenodo.3874655>.

PUBLICATIONS

[Under review/in revision]

13. Alley, K. E., P. Washam, R. B. Alley, J. N. Bassis, D. I. Benn, D. A. Lilien, A. Luckman, E. C. Pettit, T. A. Scambos, M. Truffer, C. T. Wild, J. Åström, A. J. Crawford, P. E. D. Davis, T. S. Dotto, K. J. Heywood, D. M. Holland, A. O. Hoffman, B. Kulesa, **W. S. Lee**, M. Morlighem, A. Muto, B. R. Parizek, K. Riverman, D. M. Schroeder, M. Sharp, T. Snow, A. Wählin, S. Wang, L. Wanzer, S. -T. Yoon, and S. Yun, Ice-Shelf Collapse: A Long Time Coming, *Science Advances* (submitted).
12. Park, I. -W., E. K. Jin, M. Morlighem, M. Rückamp, **W. S. Lee**, and K. -K. Lee, Enhanced instability of Thwaites Glacier due to surface melt in 23rd century projections, *Journal of Geophysical Research: Earth Surface* (under review).
11. Choi, J., J. K. Kang, S. Kang, M. K. Kim, S. Y. Lee, A. Rho, S. Yun, **W. S. Lee**, and C. Y. Hwang, Freshening-induced Shifts in Prokaryotic Community Structure and Interaction Networks in the Amundsen Sea, Antarctica, *Microbial Ecology* (in revision).
10. Nyamgerel, Y., H. Jung, C. Kim, **W. S. Lee**, J. Lee, Flow-dependent isotopic exchange during melting of heterogeneous ice layers and implications for snowmelt isotope hydrology, *Journal of Hydrology* (submitted).
9. Zhou, S., P. Dutrieux, C. Giulivi, A. Meijers, **W. S. Lee**, T. -W. Kim, T. Hattermann, and M. Janout, The OCEAN ICE hydrography profiles compilation and climatology, *Earth System Science Data Discussions* (in revision).
8. Yuan, X., A. Wählin, G. Qiao1, M. Forbes, C. -K. Lee, L. Wang, Y. He, Y. Li, C. Hulbe, and W. S. Lee, Warm Ocean and Shear-Zone Weakening Drive the Ongoing Disintegration of Thwaites Eastern Ice Shelf, *Earth and Planetary Science Letters* (under review).
7. King, M. A., N. Bertler, S. Anandakrishnan, G. Barruol, M. Bentley, P. Christoffersen, F. Colleoni, L. De Santis, C. Eayrs, C. Escutia, D. Evangelinos, F. Ferraccioli, N. Golleddge, C. Hofstede, R. Jones, M. Harris, P. Heil, N. Hill, X. Huang, I. Hodgson-Johnston, C. Hofstede, S. Lagorio, **W. S. Lee**, A. Mackintosh, R. McKay, T. Noble, S. Rintoul, M. Siegert, C. Stevens, C. Stewart, C. Stokes, Y. Suganuma, F. Torricella, Y. Wang, T. Williams, and C. Zhao, Dynamic instability of the Wilkes Subglacial Basin Ice Sheet, East Antarctica, *Nature Reviews Earth & Environment* (in revision).
6. Chung, H., J. Park, M. Park, Y. Kim, U. Chun, J. S. Na, S. Yun, **W. S. Lee**, W. Y. Lee, Ecological Trade-offs Drive Partial Migration of Weddell Seals, *Animal Behaviour* (under review).
5. Kim, B. -H., C. Choi, C. -K. Lee, K. -W. Seo, **W. S. Lee**, J. S. Na, S. Yun, C. Eayrs, B. J. Wallis, A. E. Hogg, H. D. Pritchard, P. Dutrieux, Ice shelf retreat decouples Piglet Glacier from the Pine Island catchment and amplifies dynamic mass loss, *Science Advances* (in revision).
4. Chung, H., J. K. Park, M. Park, Y. Kim, U. Chun, S. Yun, **W. S. Lee**, H. A. Choi, C. Stevens, S. -T. Yoon, J. S. Na, W. Y. Lee, Seal-based detection of southward intrusion of mCDW on the Ross Sea continental shelf, *Geophysical Research Letters* (in revision).
3. Yoon, S. -T., **W. S. Lee**, C. Eayrs, C. -K. Lee, S. Yun, J. S. Na, A. Wählin, H. A. Choi, Y. Jeong, J. Ju, J. Kim, S. H. Nam, S. R. Cho, P. Dutrieux, T. A. Scambos, T. S. Dotto, S. W. Tyler, C. Wild, C. Stevens, and A. Jenkins, Warmer and Lighter Circumpolar Deep Water poses an escalating threat to West Antarctic Ice Shelves, *Science* (in revision).
2. Kim, J., M. -I. Lee, D. Kang, E. K. Jin, and **W. S. Lee**, Near-future Changes of the Antarctic Sea Ice by Enhanced ENSO Teleconnection, *Journal of Climate* (in revision).
1. Van der Merwe, P., D. Lannuzel, G. Liniger, S. -T. Yoon, I. Bowden-Floyd, M. Filleul, D. Guihen, J. Jung, P. King, A. Townsend, G. Williams, S. Yun, and **W. S. Lee**, Limited impact on micro-nutrient supply and net primary productivity due to increased basal melting of the Thwaites Ice Shelf, Amundsen Sea, Antarctica, *Elementa: Science of Anthropocene* (in revision).

[In preparation]

9. Legrand, A., J. -Y. Cheon, J. Park, J. S. Na, S. Yun, **W. S. Lee**, S. -T. Yoon, and W. Y. Lee, Helicopter-assisted surveys and tag deployment on Weddell Seals in the Amundsen Sea, Antarctica: efficiency, coverage, and operational safety (in prep).
8. Na, J. S., P. Dutrieux, P. E. D. Davis, K. Makinson, C. -K. Lee, B. -H. Kim, D. D. Blankenship, S. Polfrey, J. -w. Chung, J. Kim, and **W. S. Lee**, Undulating ice-base geometry controls basal melting and ice shelf water structure near the grounding line (in prep).
7. Greenbaum, J. S., T. Pelle, C. -K. Lee, M. Mazloff, B. Conger, C. F. Dow, C. Eayrs, D. M. Holland, J. S. Na, H. L. Seroussi, A. Wählin, S. -T. Yoon, S. Yun, and **W. S. Lee**, Meltwater-driven shallow ocean warming beneath the Thwaites Glacier Tongue (in prep).
6. Choi, H. A., C. Stevens, U. K. Miller, T. Kim, L. Cornelissen, S. -H. Choo, C. J. Zappa, **W. S. Lee**, S. Yun, J. H. Moon, and S. -T. Yoon, HSSW salinity modulated by summertime preconditioning in Antarctic coastal polynyas (in prep).
5. **Lee, W. S.**, C. -K. Lee, C. Eayrs, and others, The fate of B22 (in prep).
4. Yoon, S. -T., W. Y. Lee, J. Park, H. Chung, M. Park, **W. S. Lee**, S. Yun, and J. Lee, Influence of Glacial Meltwater on Spatio-Temporal Variations of Hydrography in continental shelf region of the Ross Sea observed by Instrumented Seals (in prep).

3. Eayrs, C., L. Beem, C. -K. Lee, **W. S. Lee**, J. Chung, C. Pierce, J. Stutz, and D. M. Holland, Variability of surface density at Dotson Ice Shelf, West Antarctica (in prep).
2. Na, J. S., **W. S. Lee**, and E. K. Jin, Effect of seabed structures in adjusting basal melt rates near grounding line of Pine Island Ice Shelf, West Antarctica (in prep).
1. Kim, H. -B., S. H. Nam, S. -T. Yoon, **W. S. Lee**, P. van de Merwe, P. King, G. Williams, D. Guihen, and R. Coleman, The pathways and heat transport of Circumpolar Deep Water into the Thwaites and the Pine Island Glaciers, West Antarctica (in prep).
- [2026]
77. Pierce, C., M. Skidmore, L. Beem, D. Blankenship, E. Adams, C. Gerekos, **W. S. Lee**, and C. -K. Lee, Characterizing the Sub-Glacial Environment of Lower Thwaites Glacier Using Radar Modeling, *Journal of Glaciology* (in print).
76. Matsuoka, K., G. Moholdt, J. F. Arthur, J. A. Bodart, X. Cui, F. Ferraccioli, R. Forsberg, V. Goel, T. A. Jordan, F. S. McCormack, R. Mottram, H. D. Pritchard, C. Shackleton, K. Tinto, F. Boberg, M. G. P. Cavitte, R. Drews, P. Dutrieux, J. Ebbing, O. Eisen, H. Eisermann, A. S. Gardner, C. A. Greene, N. Holschuh, S. S. R. Jamieson, B. -H. Kim, N. Krauzig, B. Kulesa, C. Leuschen, J. Li, L. Li, J. Liebsch, J. A. MacGregor, E. MacKie, A. Mahagonkar, J. Maton, M. Morlighem, F. Navarro, P. Neff, I. N. Otsaka, F. Pattyn, A. Ruppel, R. J. Sanderson, H. Seroussi, A. Shepherd, M. R. Siegfried, T. Slater, A. P. Stroeven, M. Studinger, T. Teisberg, R. A. Venturelli, P. J. Winberry, C. Zhao, L. An, J. L. Bamber, R. E. Bell, R. G. Bingham, J. Brehmer-Moltmann, G. Eagles, J. Greenbaum, J. Gronset, **W. S. Lee**, E. Le Meur, L. M. Jon, K. Lindbäck, S. Lidström, M. Lösing, M. Minowa, M. Pandey, Y. Ray, M. Scheinert, D. M. Schroeder, T. Seehaus, K. Shahateet, D. Steinhage, X. Tang, D. Taylor, H. Verboncoeur, J. Yang, and D. A. Young, Towards an improved understanding of the Antarctic coastal zone and its contribution to future global sea level, *Reviews of Geophysics* (in print).
75. Cornelissen, L., S. Yun, J. McInerney, B. Grant, F. Elliott, S. -T. Yoon, C. Zappa, **W. S. Lee**, and C. Stevens, A decade-long hydrographic moored time series near the Drygalski Ice Tongue, Terra Nova Bay, Ross Sea, *Earth System Science Data*, <https://doi.org/10.5194/essd-2025-540> (in print).
- [2025]
74. Zhou, S., P. Dutrieux, C. Giulivi, A. Jenkins, A. Silvano, C. Auckland, E. P. Abrahamson, M. Meredith, I. Vaňková, K. Nicholls, P. E. D. Davis, S. Osterhus, A. L. Gordon, C. J. Zappa, T. S. Dotto, T. Scambos, K. L. Gunn, S. R. Rintoul, S. Aoki, C. Stevens, C. Liu, S. Yun, T. -W. Kim, **W. S. Lee**, M. Janout, T. Hattermann, J. Lauber, E. Darelius, A. Wählin, L. Middleton, P. Castagno, G. Budillon, K. J. Heywood, J. Graham, S. Dye, D. Hirano, and U. K. Miller (2025), The OCEAN ICE mooring compilation: a standardised, pan-Antarctic database of ocean hydrography and current time series, *Earth System Science Data*, <https://doi.org/10.5194/essd-17-5693-2025>.
73. Wild, C. T., R. Drews, N. Neckel, J. Lee, S. Kim, H. Han, **W. S. Lee**, V. Helm, S. H. R. Rosier, O. J. Marsh, and W. Rack (2025), Monitoring Shear-Zone Weakening in East Antarctic Outlet Glaciers through Differential InSAR Measurements, *The Cryosphere*, **19**, 4533–4554, <https://doi.org/10.5194/tc-19-4533-2025>.
- 72.. Lee, H. -J., E. K. Jin, B. -H. Kim, and **W. S. Lee** (2025), Disappearance of the El Niño-driven ice mass accumulation in West Antarctica under future climate change, *npj Climate and Atmospheric Science*, **8**, 357, <https://doi.org/10.1038/s41612-025-01174-x>.
71. Kim, B. -H., C. -K. Lee, K. -W. Seo, **W. S. Lee**, and J. -W. Park (2025), New catalogue of the thwaites glacier's subglacial lakes and their activities revealed by Cryosat-2 satellite altimetry, *Journal of Geophysical Research: Earth Surface*, <https://doi.org/10.1029/2023JF007602>.
70. Lee, B. M., J. Y. Choi, S. Y. Lee, A. Roh, S. Yun, **W. S. Lee**, B. C. Cho, and C. Y. Hwang (2025), Description of *Qipengyuania profunda* sp. nov., isolated from deep seawater of the Amundsen Sea (Antarctica) and reclassification of *Qipengyuania aerephila* Liu *et al.* 2022 as a later heterotypic synonym of *Qipengyuania pacifica* Tareen *et al.* 2022, *International Journal of Systematic and Evolutionary Microbiology*, **75**, <https://doi.org/10.1099/ijsem.0.006713>.
- [2024]
69. Chung, H., J. Park, M. Park, Y. Kim, U. Chun, S. Yun, **W. S. Lee**, S. -T. Yoon, and W. Y. Lee (2024), Seasonal foraging behavior of Weddell seals relation to oceanographic environmental conditions in the Ross Sea, Antarctica, *Biogeosciences*, **21**, 5199–5217, <https://doi.org/10.5194/egusphere-2023-2757>.
68. Kim, B. -H., K. -W. Seo, C. -K. Lee, J. -S. Kim, **W. S. Lee**, E. K. Jin, and M. van den Broeke (2024), Partitioning the drivers of Antarctic glacier mass balance (2003–2020) using satellite observations and a regional climate model, *Proceedings of the National Academy of Sciences*, **121**(41), e2322622121, <https://doi.org/10.1073/pnas.2322622121>.
67. Miller, K. U., C. J. Zappa, A. L. Gordon, S. -T. Yoon, C. Stevens, L. Cornelissen, S. Yun, and **W. S. Lee** (2024), The coupling of winds, ocean turbulence, and High Salinity Shelf Water in the Terra Nova Bay Polynya, *Deep Sea Research Part II*, **218**, <https://doi.org/10.1016/j.dsr2.2024.105412>.
66. Stevens, C., S. -T. Yoon, C. Zappa, U. Miller, X. Wang, F. Elliott, L. Cornelissen, C. -K. Lee, S. Yun, **W. S. Lee** (2024), Ocean Processes South of the Drygalski Ice Tongue, Western Ross Sea, *Deep Sea Research Part II*, **217**, <https://doi.org/10.1016/j.dsr2.2024.105411>.
65. Pierce, C., C. Gerekos, M. Skidmore, L. Beem, D. Blankenship, **W. S. Lee**, E. Adams, and J. Stutz (2024), Characterizing sub-glacial hydrology using radar simulations, *The Cryosphere*, **18**, 1495–1515, <https://doi.org/10.5194/tc-18-1495-2024>.
64. Matsuoka, K., R. Clifton, X. Cui, G. Eagles, O. Eisen, F. Ferraccioli, R. Forsberg, J. Greenbaum, J. Guldahl, L. Jong, T. Jordan, **W. S. Lee**, C. Leuschen, S. Lidstrom, J. MacGregor, J. Roberts, D. Steinhage, B. Sun, K. Tinto, and D. Young (2024), Lessons learned from past aerogeophysical collaborations for effectively launching new pan-Antarctic RINGS surveys. 115–119, In "Proceedings of the COMNAP Symposium 2023 Antarctic Innovations and Collaborations, *Council of Managers of National Antarctic Programs*, IISBN 978-0-473-70742-2 (Softcover) ISBN 978-0-473-70743-9 (PDF).
63. Eayrs, C., **W. S. Lee**, E. Jin, J. -F. Lemieux, F. Massonnet, M. Vancoppenolle, L. Zampieri, L. Bennets, E. Blockley, E. -S. Chung, A. Fraser, Y. -g. Ham, J. Im, B. -m. Kim, B. -H. Kim, J. Kim, J. -H. Kim, S. -J. Kim, A. Korosov, C. -K. Lee, D. Lee, H. -J. Lee, J. -G. Lee, J. Lee, J. Na, I. -w. Park, J. Park, X. Wang, S. Xu, and S Yun (2024), Advances in machine learning techniques can assist across a variety of stages in sea ice applications, *Bulletin of the American Meteorological Society*, **105**(3), E527–E531, <https://doi.org/10.1175/BAMS-D-23-0332.1>.
62. Dow, C., D. Mueller, P. Wray, D. Friedrichs, A. Forrest, J. McInerney, J. Greenbaum, D. Blankenship, C. -K. Lee, and **W. S. Lee** (2024), The complex basal morphology and ice dynamics of the Nansen Ice Shelf, East Antarctica, *The Cryosphere*, **18**, 1105–1123, <https://doi.org/10.5194/tc-18-1105-2024>.
61. Miller, K. U., C. J. Zappa, A. L. Gordon, S. -T. Yoon, C. Stevens, and **W. S. Lee** (2024), High Salinity Shelf Water production in Terra Nova Bay, Ross Sea from high-resolution near-surface salinity observations, *Nature Communications*, **15**:373, <https://doi.org/10.1038/s41467-023-43880-1>.
60. Lee, D., B. -H. Kim, K. -W. Seo, **W. S. Lee**, C. -K. Lee, T. Jeon, and E. K. Jin (2024), Empirical projection of global sea level in 2050 driven by Antarctic and Greenland ice mass variations, *Environmental Research Letters*, **19**(1), <https://doi.org/10.1088/1748-9326/ad13b8>.

[2023]

59. Silvano, A., S. Purkey, A. L. Gordon, P. Castagno, A. Stewart, S. R. Rintoul, A. Foppert, K. L. Gunn, L. Herraiz-Borreguero, S. Aoki, Y. Nakayama, A. C. Naveira Garabato, C. Spingys, C. Hayatte Akhondas, J. -B. Sallée, C. de Lavergne, E. P. Abrahamsen, A. J. S. Meijers, M. P. Meredith, S. Zhou, T. Tamura, K. Yamazaki, K. I. Ohshima, P. Falco, G. Budillon, T. Hattermann, M. A. Janout, P. Llanillo, M. M. Bowen, E. Darelus, S. Osterhus, K. Nicholls, C. Stevens., D. Fernandez, L. Cimoli, S. S. Jacobs, A. K. Morrison, A. McC. Hogg, F. A. Haumann, A. Mashayek, Z. Wang, R. Kerr, G. Williams, and **W. S. Lee** (2023), Observing Antarctic Bottom Water in the Southern Ocean, Observing Antarctic Bottom Water in the Southern Ocean, *Frontiers in Marine Science*, **10**, <https://doi.org/10.3389/fmars.2023.1221701>.
58. Hong, S. -B., Y. Nyamgerel, **W. S. Lee**, and J. Lee (2023), High snow accumulation observed on Amundsen Sea coastal ice rise, West Antarctica, *Polish Polar Research*, **44**(4), 365-384, <https://doi.org/10.24425/ppr.2023.145440>.
57. Na, J., P. E. D. Davis, B.-H. Kim, E. K. Jin, and **W. S. Lee** (2023), Ice shelf water structure beneath the Larsen C Ice Shelf in Antarctica, *Geophysical Research Letters*, **50**, e2023GL104088, <https://doi.org/10.1029/2023GL104088>.
56. Heil, P., C. Stevens, **W. S. Lee**, C. Eayrs, H. C. Shin, S. Alexander, and W. Rack (2023), Bridging the gap for ice-ocean-ecosystem processes: Integrated Observing System for the Ross Sea to the Far East Antarctic Region RSfEAR, *Frontiers in Marine Science*, **10**, <https://doi.org/10.3389/fmars.2023.1206119>.
55. Kim, T., J. -S. Hong, E. K. Jin, J. -H. Moon, S. -K. Song, and **W. S. Lee** (2023), Spatiotemporal variability in ocean-driven basal melting of cold-water cavity ice shelf in Terra Nova Bay, East Antarctica: Roles of tide and cavity geometry, *Frontiers in Marine Science*, **10**, <https://doi.org/10.3389/fmars.2023.1249562>.
54. Zabolotn, N., O. A. Godin, P. D. Bromirski, G. Jee, **W. S. Lee**, S. Yun, and L. Zabolotina (2023), Low-frequency wave activity in the ocean–Ross Ice Shelf–atmosphere system, *Earth and Space Science*, **10**, e2022EA002621, <https://doi.org/10.1029/2022EA002621>.
53. Kim J., D. Kang, M. -I. Lee, E. K. Jin, J. -S. Kug, and **W. S. Lee** (2023), Remote Influences of ENSO and IOD on the Interannual Variability of the West Antarctic Sea Ice, *Journal of Geophysical Research: Atmosphere*, **128**, e2022JD038313, <https://doi.org/10.1029/2022JD038313>.
52. Liggett, D., A. Herbert, R. Badhe, G. E. C. Charnley, K. Hudson, I. Kelman, **W. S. Lee**, C. Lorenzo, P. Marques-Quinteiro, M. Nash, J. Pickett, Y. Yermakova (2023), Researchers on ice? How the COVID-19 pandemic has impacted on Antarctic researchers, *Antarctic Science*, **35**(2), 141-160, <https://doi.org/10.1017/S0954102023000020>.

[2022]

51. Kim, T., E. K. Jin, J. Na, C. -K. Lee, **W. S. Lee**, and J. -H. Moon (2022), Numerical Simulation of Ocean-Ice Shelf Interaction: Water Mass Circulation in the Terra Nova Bay, Antarctica, *Ocean and Polar Research*, **44**:4, 269–285, <https://doi.org/10.4217/OPR.2022027> (in Korean with English abstract).
50. Na, J. S., T. Kim, E. K. Jin, S. -T. Yoon, **W. S. Lee**, S. Yun, and J. Lee (2022), Large-eddy simulations of the ice-shelf–ocean boundary layer near the ice front of Nansen Ice Shelf, Antarctica, *The Cryosphere*, **16**, 3451–3468, <https://doi.org/10.5194/tc-16-3451-2022>.
49. Yun, S., **W. S. Lee**, R. P. Dziak, and H. Matsumoto, Numerical Study on the Characteristics of Abyssal T-wave Envelopes Controlled by Earthquake Source Parameters (2022), *Seismological Research Letters*, **93**, 2189–2200, <https://doi.org/10.1785/0220210264>.
48. Friedrichs, D. M., J. B. McInerney, H. J. Oldroyd, **W. S. Lee**, S. Yun, S. -T. Yoon, C. Stevens, C. J. Zappa, C. F. Dow, D. Mueller, O. S. Steiner, and A. L. Forrest (2022), Observations of submesoscale eddy-driven heat transport at an ice shelf calving front, *Communications Earth & Environment*, **3**:140, <https://doi.org/10.1038/s43247-022-00460-3>.
47. Lee, J., **W. S. Lee**, H. Jung, and S. -G. Lee (2022), Comparison between Total Least Squares and Ordinary Least Squares for Calculating the Linear Relationship between Stable Water Isotopes, *Geoscience Letters*, **9**:11, <https://doi.org/10.1186/s40562-022-00219-w>.
46. Yoon, S. -T., **W. S. Lee**, S. H. Nam, C. -K. Lee, S. Yun, K. Heywood, L. Boehme, Y. Zheng, I. -H. Lee, Y. Choi, A. Jenkins, E. K. Jin, R. Larter, J. Wellner, P. Dutrieux, and A. Bradley (2022), Ice front retreat reconfigures meltwater-driven gyres modulating ocean heat delivery to an Antarctic ice shelf, *Nature Communications*, **13**:306, <https://doi.org/10.1038/s41467-022-27968-8>.

[2021]

45. Yun, S., **W. S. Lee**, R. P. Dziak, L. Roche, H. Matsumoto, T. -K. Lau, A. Sremba, D. K. Mellinger, J. H. Haxel, S. -G. Kang, J. K. Hong, and Y. Park (2021), Quantifying soundscapes in the Ross Sea, Antarctica using long-term autonomous hydroacoustic monitoring systems, *Frontiers in Marine Science*, **8**:703411, <https://doi.org/10.3389/fmars.2021.703411>.
44. **Lee, W. S.**, Y. Park, and C. -K. Lee (2021), Recent anomalous seismic activity in the Bransfield Strait, Antarctic Peninsula (August 2020–February 2021), *Journal of the Geological Society of Korea*, **57**, No. 5, 717–726, <http://dx.doi.org/10.14770/jgsk.2021.57.5.717> (in Korean with English abstract).
43. Miller, B. S., K. M. Stafford, I. van Opzeeland, D. Harris, F. Samaran, A. Širović, S. Buchan, K. Findlay, N. Balcazar, S. Nieuwkerk, E. C. Leroy, M. Aulich, F. W. Shabangu, R. P. Dziak, **W. S. Lee**, and J. K. Hong (2021), An open access dataset for developing automated detectors of Antarctic baleen whale sounds and performance evaluation of two commonly used detectors, *Scientific Reports*, **11**, 806, <https://doi.org/10.1038/s41598-020-78995-8>.

[2020]

42. Lindzey, L. E., L. H. Beem, D. A. Young, E. Quartini, D. D. Blankenship, C. -K. Lee, **W. S. Lee**, J. I. Lee, and J. Lee (2020), Aerogeophysical characterization of an active subglacial lake system in the David Glacier catchment, Antarctica, *The Cryosphere*, **14**, 2217–2233, <https://doi.org/10.5194/tc-14-2217-2020>.
41. Jang, G. I., I. Lee, T. T. Ha, S. J. Yoon, Y. J. Hwang, H. Yi, S. Yun, **W. S. Lee**, and C. Y. Hwang (2020), *Pseudomonas neustonica* sp. nov., isolated from the sea surface microlayer of the Ross Sea (Antarctica), *International Journal of Systematic and Evolutionary Microbiology*, **70**, 3832–3838, <https://doi.org/10.1099/ijsem.0.004240>.
40. Wei, W., D. Blankenship, J. Greenbaum, N. Gourmelen, C. F. Dow, T. Richter, D. Young, S. Lee, T. W. Kim, **W. S. Lee**, and K. Assmann (2020), Getz Ice Shelf melt enhanced by freshwater discharge from beneath the West Antarctic Ice Sheet, West Antarctica, *The Cryosphere*, **14**, 1399–1408, <https://doi.org/10.5194/tc-14-1399-2020>.
39. Yoon, S. -T., **W. S. Lee**, C. Stevens, S. Jendersie, S. H. Nam, S. Yun, C. Y. Hwang, G. I. Jang, and J. Lee (2020), Spatio-temporal variations in High-Salinity Shelf Water production in Terra Nova Bay polynya, Antarctica, *Ocean Science*, **16**, 373–388, <https://doi.org/10.5194/os-16-373-2020>.
38. Morlighem M., E. Rignot, T. Binder, D. Blankenship, R. Drews, G. Eagles, O. Eisen, F. Ferraccioli, R. Forsberg, P. Fretwell, V. Goel, J. S. Greenbaum, H. Gudmundsson, J. Guo, V. Helm, C. Hofstede, I. Howat, A. Humbert, W. Jokat, N. B. Karlsson, **W. S. Lee**, K. Matsuoka, R. Millan, J. Mouginot, J. Paden, F. Pattyn, J. Roberts, S. Rosier, A. Ruppel, H. Seroussi, E. C. Smith, D. Steinhage, B. Sun, M. R. van den Broeke, T. D. van Ommen, M. van Wessem, and D. Young (2020), Deep glacial troughs and stabilizing ridges unveiled beneath the margins of the Antarctic ice sheet, *Nature Geoscience*, **13**, 132–137, <http://dx.doi.org/10.1038/s41561-019-0510-8>.

[2019]

37. Ham, J. -Y., S. Hur, **W. S. Lee**, Y. Han, H. Jung, and J. Lee (2019), Isotopic variations of meltwater from ice by isotopic exchange between liquid water and ice, *Journal of Glaciology*, **65**, 1035–1043, <https://doi.org/10.1017/jog.2019.75>.
36. Chen, Z., P. Bromirski, R. Gerstoft, R. Stephen, **W. S. Lee**, S. Yun, S. Olinger, R. Aster, D. Wiens, and A. Nyblade (2019), Ross Ice Shelf Icequakes Associated with Ocean Gravity Wave Activity, *Geophysical Research Letters*, **46**, 8893–8902, <https://doi.org/10.1029/2019GL084123>.
35. Dziak, R. P., **W. S. Lee**, J. H. Haxel, H. Matsumoto, G. Tepp, T. -K. Lau, L. Roche, S. Yun, C. -K. Lee, J. Lee, and S. -T. Yoon (2019), Hydroacoustic, Meteorologic and Seismic Observations of the 2016 Nansen Ice Shelf Calving Event and Iceberg Formation, *Frontiers in Earth Science*, **7**:183, <https://doi.org/10.3389/feart.2019.00183>.

[2018]

34. Dow, C. F., **W. S. Lee**, J. S. Greenbaum, C. A. Greene, D. D. Blankenship, K. Poinar, A. L. Forrest, D. A. Young, and C. J. Zappa (2018), Basal channels drive active surface hydrology and transverse ice-shelf fracture, *Science Advances*, **4**, No. 6, eaao7212, <https://doi.org/10.1126/sciadv.aao7212>.

[2017]

33. Lee, J., H. -B. Choi, **W. S. Lee**, and S. -G. Lee (2017), Comparison between Total Least Squares and Ordinary Least Squares for Linear Relationship of Stable Water Isotopes, *Economic and Environmental Geology*, **50**, No. 6, 517–523, <https://doi.org/10.9719/EEG.2017.50.6.517> (in Korean with English abstract).
32. Stevens, C., **W. S. Lee**, G. Fusco, S. Yun, B. Grant, N. Robinson, and C. Y. Hwang (2017), The influence of the Drygalski Ice Tongue on the local ocean, *Annals of Glaciology*, **58**, No. 74, 51–59, <https://doi.org/10.1017/aog.2017.4>.
31. Ham, J. -Y., **W. S. Lee**, Y. Han, S. D. Hur, H. Jung, and J. Lee (2017), A study on isotopic exchange between ice and meltwater using a melting experiment and 1-D model, *Journal of the Geological Society of Korea*, **53**, No. 6, 773–780, <https://doi.org/10.14770/jgsk.2017.53.6.773> (in Korean with English abstract).
30. Lee, S. H., I. W. Yeo, K. -K. Lee, and **W. S. Lee** (2017), The role of eddies in solute transport and recovery in rock fractures: Implication for groundwater remediation, *Hydrological Processes*, **31**, 3580–3587, <https://doi.org/10.1002/hyp.11283>.
29. Kanao, M., Y. Park, T. Murayama, **W. S. Lee**, M. Yamamoto, H. J. Yoo, Y. Ishihara, J. Kim, T. Oi, and J. H. Jung (2017), Characteristic atmosphere and ocean interaction in the coastal and marine environment inferred from infrasound at Terra Nova Bay, Antarctica - observation and initial data -, *Annals of Geophysics*, **60**, No. 5, A0554, <https://doi.org/10.4401/ag-7364>.
28. Bell, R. E., W. Chu, J. Kingslake, I. Das, M. Tedesco, K. J. Tinto, C. J. Zappa, M. Frezzotti, A. Boghosian, and **W. S. Lee** (2017), Antarctic ice shelf potentially stabilized by export of meltwater in surface river, *Nature*, **544**, 344–348, <https://doi.org/10.1038/nature22048>.

[2016]

27. Kim, B. -H., C. -K. Lee, K. -W. Seo, **W. S. Lee**, and T. Scambos (2016), Active subglacial lakes and channelized water flow beneath the Kamb Ice Stream, *The Cryosphere*, <https://doi.org/10.5194/tc-10-2971-2016>.
26. Hwang, C. Y., I. Lee, S. J. Yoon, Y. M. Lee, **W. S. Lee**, and H. K. Lee (2016), Reclassification of *Halomonas caseinilytica* Wu *et al.* 2008 as a later synonym of *Halomonas sinaiensis* Romano *et al.* 2007, and emendation of the species description, *Antonie van Leeuwenhoek*, **109**, 1345–1352, <https://doi.org/10.1007/s10482-016-0733-2>.
25. Hwang, C. Y., I. Lee, Y. J. Hwang, S. J. Yoon, **W. S. Lee**, and B. C. Cho, *Pseudoalteromonas neustonica* sp. nov., isolated from the sea surface microlayer of the Ross Sea (Antarctica), and emended description of the genus *Pseudoalteromonas* (2016), *International Journal of Systematic and Evolutionary Microbiology*, <https://doi.org/10.1099/ijsem.0.001202>.

[2015]

24. Park, Y., H. J. Yoo, **W. S. Lee**, C. -K. Lee, J. Lee, H. Park, J. Kim, and Y. Kim, P-wave velocity structure beneath Mt. Melbourne in northern Victoria Land, Antarctica: Evidence of partial melting and volcanic magma sources (2015), *Earth and Planetary Science Letters*, **432**, 293–299, <https://doi.org/10.1016/j.epsl.2015.10.015>.
23. Williams, M., G. Budillon, W. Smith, S. Ackley, D. Blankenship, J. Greenbaum, S. Lee, and **W. S. Lee**, Observation Activities in the Ross Sea: Current and future national contributions to the Southern Ocean Observing System (2015), *Southern Ocean Observation System Report Series*, <https://doi.org/10.5281/zenodo.21169>.
22. Dziak, R. P., D. R. Bohnenstiehl, H. Matsumoto, K. M. Stafford, M. Park, **W. S. Lee**, M. J. Fowler, T. K. Lau, J. H. Haxel, and D. K. Mellinger, Sources and levels of ambient ocean sound near the Antarctic Peninsula (2015), *PLoS ONE*, **10**, No. 4, e0123425, <https://doi.org/10.1371/journal.pone.0123425>.
21. **Lee, W. S.**, K. -W. Seo, J. Eom, D. -H. Sheen, C. -K. Lee, Y. Park, S. Yun, and H. J. Yoo, Detection of long period seismic events by using a portable gravity meter, gPhone (2015), *Geophysics and Geophysical Exploration*, **18**, No. 1, 31–34.

[2014]

20. Park, Y., H. J. Yoo, **W. S. Lee**, J. Lee, Y. Kim, S. -H. Lee, D. Shin, and H. Park, Deployment and performance of a broadband seismic network near the new Korean Jang Bogo research station, Terra Nova Bay, East Antarctica (2014), *Seismological Research Letters*, **85**, No. 6, 1–7, <https://doi.org/10.1785/0220140107>.
19. Clinton, J., M. Nettles, F. Walter, K. Anderson, T. Dahl-Jensen, D. Giardini, A. Govoni, W. Hanka, S. Lasocki, **W. S. Lee**, D. McCormack, S. Mykkeltveit, E. Stutzmann, and S. Tsuboi, Seismic Network in Greenland Monitors Earth and ice System (2014), *EOS Trans. AGU*, **95**, No. 2, 13–14, <https://doi.org/10.1002/2014EO02>.

[2013]

18. Park, M. and **W. S. Lee**, Hydroacoustic monitoring in the Antarctica, in *Our Challenge toward the Polar Regions, Antarctica, and King Sejong Station (25 year's Research Outcomes in King Sejong Station)* (2013), edited by KOPRI, pp. 84–85, Korea Polar Research Institute.
17. Yun, S. and **W. S. Lee**, Hydroacoustic Observation on the 2011 Tohoku Earthquake (2013), *Geophysics and Geophysical Exploration*, **16**, No. 4, 234–239.
16. Dziak, R. P., M. Fowler, H. Matsumoto, D. R. Bohnenstiehl, M. Park, K. Warren, **W. S. Lee**, Life and death sounds of iceberg A53a (2013), *Oceanography*, **26**, No. 2, 10–12.
15. **Lee, W. S.**, J. Lee, and S. Han, Seismic Ambient Noise and Its Applicability to Monitor Cryospheric Environment (2013), in *Engineering Seismology, Geotechnical and Structural Earthquake Engineering*, edited by Sebastiano D'Amico, pp. 147–155, InTech, ISBN 978-953-51-1038-5.

- [2012]
14. **Lee, W. S.**, Y. Park, S. Yun, K. -W. Seo, T. -G. Yee, H. Choe, H. I. Yoon, and N. Chae, Installation of Very Broadband Seismic Stations to Observe Seismic and Cryogenic Signals, Antarctica (2012), *Geophysics and Geophysical Exploration*, **15**, No. 3, 144–149.
- [2011]
13. **Lee, W. S.**, Observation of underwater earthquakes by using a hydroacoustic monitoring system (2011), *Physics and High Technology*, **20**, 2–7, <https://doi.org/10.3938/PhiT.20.029> (in Korean).
 12. **Lee, W. S.**, D. -H. Sheen, S. Yun, and K. -W. Seo, The origin of double-frequency microseism and its seasonal variability at King Sejong Station, Antarctica (2011), *Bulletin of the Seismological Society of America*, **101**, 1446–1451, <https://doi.org/10.1785/20100143>.
- [2010]
11. **Lee, W. S.**, S. Yun, and J. -Y. Do, Scattering and intrinsic attenuation of short period *S*-waves in the Gyeongsang Basin, South Korea, revealed from *S*-wave seismogram envelopes based on the radiative transfer theory (2010), *Bulletin of the Seismological Society of America*, **100**, 833–840, <https://doi.org/10.1785/20090149>.
 10. Dziak, R. P., M. Park, **W. S. Lee**, H. Matsumoto, D. R. Bohnenstiehl, and J. H. Haxel, Tectonomagmatic activity and ice dynamics in the Bransfield Strait back-arc basin, Antarctica (2010), *Journal of Geophysical Research*, **115**, B01102, <https://doi.org/10.1029/2009JB006295>.
- [2009]
9. **Lee, W. S.**, H. Sato, and S. Yun, Estimation of coda *Q* in the mantle and characteristics of regional *S*-wave envelope (2009), *Geosciences Journal*, **13**, 363–369, <https://doi.org/10.1007/s12303-009-0034-0>.
 8. Yun, S., S. Ni, M. Park, and **W. S. Lee**, Southeast Indian Ocean-Ridge earthquake sequences from cross-correlation analysis of hydroacoustic data (2009), *Geophysical Journal International*, **179**, 401–407, <https://doi.org/10.1111/j.1365-246X.2009.04292.x>.
- [2007]
7. Dziak, R. P., M. Park, H. Matsumoto, D. R. Bohnenstiehl, J. H. Haxel, D. K. Mellinger, K. Stafford, and **W. S. Lee**, Hydroacoustic monitoring of the Bransfield Strait and Drake Passage, Antarctica: A first analysis of seafloor seismicity, cryogenic acoustic sources, and cetacean vocalizations in Antarctica (2007): A Keystone in a Changing World; edited by A. K. Cooper and C. R. Raymond et al., *USGS Open-File Report 2007-1047, 011*, 4 p.
 6. Yun, S., **W. S. Lee**, K. Lee, and M. Noh, Spatial distribution of coda *Q* in South Korea (2007), *Bulletin of the Seismological Society of America*, **97**, 1012–1018, <https://doi.org/10.1785/0120060097>.
- [2006]
5. **Lee, W. S.**, Quantification of the Earth medium inhomogeneity (2006), *Progress reports on wave propagation and scattering since IUGG2003: IASPEI Task Group on Scattering and Heterogeneity*, 21–23.
 4. **Lee, W. S.** and H. Sato, Power-law decay characteristic of coda envelopes revealed from the analysis of regional earthquakes (2006), *Geophysical Research Letters*, **33**, L07317, <https://doi.org/10.1029/2006GL025840>.
 3. **Lee, W. S.**, H. Sato, and K. Lee, Scattering coefficients in the mantle revealed from the seismogram envelope analysis based on the multiple isotropic scattering model (2006), *Earth and Planetary Science Letters*, **241**, 888–900, <https://doi.org/10.1016/j.epsl.2005.10.035>.
- [2003]
2. **Lee, W. S.**, H. Sato, and K. Lee, Estimation of *S*-wave scattering coefficient in the mantle from envelope characteristics before and after the *ScS* arrival (2003), *Geophysical Research Letters*, **30**, No.24, 2248, <https://doi.org/10.1029/2003GL018413>.
- [1999]
1. **Lee, W. S.** and K. Lee, *Q* estimates using the coda waves in the Kyeongsang Basin (1999), *Journal of Earthquake Engineering Society of Korea*, **3**, 67–73 (in Korean with English abstract).