

# Pieter-Ewald Share

## Education

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- 2018 Ph.D. Seismology, Department of Earth Sciences, University of Southern California (GPA=3.67)  
Dissertation title: Multi-scale imaging of major fault zones in Southern California  
Advisor: Prof. Yehuda Ben-Zion
- 2012 M.Sc. Magnetotellurics, School of Cosmic Physics (Geophysics), Dublin Institute for Advanced Studies and School of Geosciences, University of the Witwatersrand  
Thesis title: Prediction of DC current flow between the Otjiwarongo and Katima Mulilo regions, Namibia  
Advisors: Prof. Alan G. Jones and Dr. Susan J. Webb
- 2007 B.Sc. Hons. Geophysics, School of Geosciences, University of the Witwatersrand (Cum Laude)
- 2006 B.Sc. Physics and Geology, Nelson Mandela University

## Professional Experience

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- 2020-present Assistant Professor, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University
- 2018-2020 Green Postdoctoral Fellow, Institute of Geophysics and Planetary Physics (IGPP), Scripps Institution of Oceanography, University of California San Diego
- 2013-2018 Graduate Research and Teaching Assistant, Department of Earth Sciences, University of Southern California (USC)
- 2011-2013 Scientific Researcher and Consultant, Centre for Mining Innovation, Council for Scientific and Industrial Research (South Africa)

## Awards and Honors

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- 2018 IGPP Green Postdoctoral Fellowship
- 2013-2018 USC Outstanding Teaching Assistant Awards (5 total)
- 2009 Awarded the ExxonMobil Upstream Research Co. Scholarship by the SEG
- 2008 SAGA award for most outstanding Geophysics student in 2007
- 2008 University of the Witwatersrand Merit award
- 2007 London Bullion Market Scholarship

## Peer-reviewed Publications

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22. Vavra, E., Qiu, H., Chi, B., **Share, P.-E.**, Allam, A., Morzfeld, M., Vernon, F., Ben-Zion, Y., & Fialko, Y. (2023). Active dipping interface of the Southern San Andreas Fault revealed by space geodetic and seismic imaging. *Journal of Geophysical Research – Solid Earth*, in review.
21. **Share, P.-E.**, Vernon, F. L., & Ben-Zion, Y. (2023). The variable continuous bimaterial interface in the San Jacinto fault zone revealed by dense seismic array analysis of fault zone head waves. *Journal of Geophysical Research – Solid Earth*, <https://doi.org/10.1029/2022JB025070>.
20. **Share, P.-E.**, Peacock, J. R., Constable, S. C., & Vernon, F. L. (2023). Structural properties of the Southern San Andreas Fault system in northern Coachella Valley from magnetotelluric imaging. *Geophysical Journal International*, <https://doi.org/10.1093/gji/ggac356>.
19. **Share, P.-E.**, Qiu, H., Vernon, F. L., Allam, A. A., Fialko, Y., & Ben-Zion, Y. (2022). General Seismic Architecture of the Southern San Andreas Fault Zone around the Thousand Palms Oasis from a Large-N Nodal Array. *The Seismic Record*, <https://doi.org/10.1785/0320210040>.

18. **Share, P.-E.**, Castro, R. R., Vidal-Villegas, J. A., Mendoza, L., & Ben-Zion, Y. (2021). High-resolution seismic imaging of the plate boundary in northern Baja California and southern California using double-pair double-difference tomography. *Earth and Planetary Science Letters*, <https://doi.org/10.1016/j.epsl.2021.117004>.
17. Qin, L., **Share, P.-E.**, Qiu, H., Allam, A. A., Vernon, F. L., & Ben-Zion, Y. (2021). Internal structure of the San Jacinto fault zone at the Ramona Reservation, north of Anza, California, from data of dense array seismic data. *Geophysical Journal International*, <https://doi.org/10.1093/gji/ggaa482>.
16. Cheng, Y., Ben-Zion, Y., Brenguier, F., Johnson, C. W., **Share, P.-E.**, Mordret, A., Boué, P., Li, Z., & Vernon, F. (2020). An automated method for developing a catalog of small earthquakes using data of a dense seismic array and nearby stations. *Seismological Research Letters*, doi: 10.1785/0220200134.
14. **Share, P.-E.**, Taborik, P., Stepancikova, P., Stemberk, J., Rockwell, T. K., Wade, A., Arrowsmith, J. R., Donnellan, A., Vernon, F. L., & Ben-Zion, Y. (2020). Characterizing the uppermost 100 m structure of the San Jacinto fault zone southeast of Anza, California, through joint analysis of geological, topographic, seismic and resistivity data. *Geophysical Journal International*, doi: 10.1093/gji/ggaa204.
13. Brenguier, F., Boué, P., Ben-Zion, Y., Vernon, F., Johnson, C., Mordret, A., Coutant, O., **Share, P.-E.**, Beaucé, E., Hollis, D., & Lecocq, T. (2019). Turning vehicle traffic into a powerful seismic source for monitoring active faults. *Geophysical Research Letters*, doi: 10.1029/2019GL083438.
12. **Share, P.-E.**, Guo, H., Thurber, C. H., Zhang, H., & Ben-Zion, Y. (2019). Seismic imaging of the Southern California plate-boundary around the South-Central Transverse Ranges using double-difference tomography. *Pure and Applied Geophysics*, doi: 10.1007/s00024-018-2042-3.
11. **Share, P.-E.**, Allam, A. A., Ben-Zion, Y., Lin, F.-C., & Vernon, F. L. (2019). Structural properties of the San Jacinto fault zone at Blackburn Saddle from seismic data of a dense linear array. *Pure and Applied Geophysics*, doi: 10.1007/s00024-018-1988-5.
10. **Share, P.-E.**, & Ben-Zion, Y. (2018). A bimaterial interface along the northern San Jacinto fault through Cajon Pass. *Geophysical Research Letters*, doi: 10.1029/2018GL079834.
9. Qin, L., Ben-Zion, Y., Qiu, H., **Share, P.-E.**, Ross, Z. E., & Vernon, F. L. (2018). Internal structure of the San Jacinto fault zone in the trifurcation area southeast of Anza, California, from data of dense seismic arrays. *Geophysical Journal International*, doi: 10.1093/gji/ggx540.
8. **Share, P.-E.**, Ben-Zion, Y., Ross, Z. E., Qiu, H., & Vernon, F. L. (2017). Internal structure of the San Jacinto fault zone at Blackburn Saddle from seismic data of a linear array. *Geophysical Journal International*, doi: 10.1093/gji/ggx191.
7. Qiu, H., Ben-Zion, Y., Ross, Z. E., **Share, P.-E.**, & Vernon, F. L. (2017). Internal structure of the San Jacinto fault zone at Jackass Flat from data recorded by a dense linear array. *Geophysical Journal International*, doi: 10.1093/gji/ggx096.
6. **Share, P.-E.**, & Ben-Zion, Y. (2016). Bimaterial interfaces in the South San Andreas Fault with opposite velocity contrasts NW and SE from San Geronio Pass. *Geophysical Research Letters*, doi: 10.1002/2016GL070774.
5. **Share, P.-E.**, Jones, A. G., Muller, M. R., Khoza, D. T., Miensoopust, M. P., & Webb, S. J. (2014). An audio-magnetotelluric investigation of the Otjiwarongo and Katima Mulilo regions, Namibia. *Geophysics Case History*, doi: 10.1190/geo2013-0171.1.
4. **Share, P.-E.**, Milev, A., Durrheim, R., Kuijpers, J., Ogasawara, H. (2013). Relating high-resolution tilt measurements to the source displacement of an M 2.2 event located at Mponeng gold mine. *Journal of the Southern African Institute of Mining and Metallurgy*, 113, 787-793.
3. Khoza, D., Jones, A. G., Muller, M. R., Evans, R. L., Webb, S. J., Miensoopust, M., & the SAMTEX team (including **Share, P.-E.**) (2013). Tectonic model of the Limpopo belt: Constraints from magnetotelluric data. *Precambrian Research*, doi: 10.1016/j.precamres.2012.11.016.
2. Jones, A. G., Evans, R. L., Muller, M. R., Hamilton, M. P., Miensoopust, M. P., Garcia, X., Cole, P., Ngwisanyi, T., Hutchins, D., Fourie, C. J. S., Jelsma, H., Evans, S., Aravanis, T., Pettit, W., Webb, S., Wasborg, J., & the SAMTEX team (including **Share, P.-E.**) (2009). Area selection for diamonds using magnetotellurics: Examples from southern Africa. *Lithos*, doi: 10.1016/j.lithos.2009.06.011.

1. Muller, M. R., Jones, A. G., Evans, R. L., Grutter, H. S., Hatton, C., Garcia, X., Hamilton, M. P., Miensopust, M. P., Cole, P., Ngwisanyi, T., Hutchins, D., Fourie, C. J. S., Jelsma, H. A., Evans, S. F., Aravanis, T., Pettit, W., Webb, S. J., Wasborg, J., & the SAMTEX team (including **Share, P.-E.**) (2009). Lithospheric structure, evolution and diamond prospectivity of the Rehoboth Terrane and western Kaapvaal Craton, southern Africa: Constraints from broadband magnetotellurics. *Lithos*, doi: 10.1016/j.lithos.2009.06.023.

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### Other Publications

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4. Aderhold, K., Arrowsmith, R., Atkinson, G., Ben-Zion, Y., Elbanna, A., Griffith, W., **Share, P.-E.**, Steidl, J., Trugman, D., Vernon, F., & Woodward, R. (2022). Shaping of the Rupture and Fault Zone Observatory. *Southern California Earthquake Center December newsletter*.
3. **Share, P.-E.** (2021). Finding fault(s): Pieter Share peers into the Earth. *OSU College of Earth, Ocean, and Atmospheric Sciences newsletter*.
2. **Share, P.-E.**, Vernon, F. L., & Ben-Zion, Y. (2021). Cahuilla Reservation helps understand earthquakes on the San Jacinto fault. *Agua Caliente Band of Cahuilla Indians EPA Spring newsletter*.
1. **Share, P.-E.** (2008). SAMTEX – From a student’s perspective. *South African Geophysical Association (SAGA) November newsletter Vol. 2*.

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### Data Sets

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8. Mostafanejad, A., Bedrosian, P., **Share, P.-E.**, Lumley, D., Igonin, N., & Liberty, L. (2022). SAGE 2022 investigations of the Valles Caldera - Node [Data set]. International Federation of Digital Seismograph Networks. [https://doi.org/10.7914/SN/7M\\_2022](https://doi.org/10.7914/SN/7M_2022)
7. Peacock, J. R., & **Share, P.-E.** (2022). Magnetotelluric data across the Southern San Andreas Fault Zone, California: US Geological Survey data release, <https://doi.org/10.5066/P990U7GE>
6. Tréhu, A., & **Share, P.-E.** (2022). Recording signals from the Reser stadium implosion for site response and structure at the western edge of the Willamette Valley [Data set]. International Federation of Digital Seismograph Networks. [https://doi.org/10.7914/SN/YM\\_2022](https://doi.org/10.7914/SN/YM_2022)
5. Vernon, F., **Share, P.-E.**, Ben-Zion, Y., Fialko, Y., & Allam, A. (2020). Southern San Andreas Fault Zone [Data set]. International Federation of Digital Seismograph Networks. [https://doi.org/10.7914/SN/YA\\_2020](https://doi.org/10.7914/SN/YA_2020)
4. **Share, P.-E.**, & Vernon, F. (2019). Dense nodal deployment at some test sites for the upcoming Faultscan project [Data set]. International Federation of Digital Seismograph Networks. [https://doi.org/10.7914/SN/6E\\_2019](https://doi.org/10.7914/SN/6E_2019)
3. Allam, A. A., Lin, F.-C., **Share, P.-E.**, & Vernon, F. L. (2017). Dense seismic three-component nodal array at Bud Wellman Ranch [Data set]. International Federation of Digital Seismograph Networks. [https://doi.org/10.7914/SN/9A\\_2017](https://doi.org/10.7914/SN/9A_2017)
2. Allam, A. A., Lin, F.-C., **Share, P.-E.**, & Vernon, F. L. (2016). Dense seismic three-component nodal array at the Ramona Reservation [Data set]. International Federation of Digital Seismograph Networks. [https://doi.org/10.7914/SN/9D\\_2016](https://doi.org/10.7914/SN/9D_2016)
1. Vernon, F., **Share, P.-E.**, Allam, A., & Ben-Zion, Y. (2015). Blackburn Nodal Array [Data set]. International Federation of Digital Seismograph Networks. <https://doi.org/10.7914/r0hg-0k63>

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### Invited Talks

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10. Sahakian, V., **Share, P.-E.**, & Melgar, D. (2023). Earthquakes and Shaking in the Pacific Northwest. Presented at the American Association of Physics Teachers Winter Meeting, Portland, OR, 15 January.
9. **Share, P.-E.** (2022). The tale of two faults: The young and loud versus the old and quiet. Presented at the USGS GHSC Seminar Series, Golden, CO, 18 October.
8. **Share, P.-E.** (2022). The San Andreas fault system through the Salton Trough: Insights on structure from multi-scale geophysics. Presented at the IGPP Winter 2022 Seminar Series, La Jolla, CA, 4 January.

7. **Share, P.-E.** (2021). The San Andreas fault system through the Salton Trough: Insights on structure from multi-scale geophysics. Presented at the USC Earthquake Physics Seminar Series, Los Angeles, CA, 31 August.
6. **Share, P.-E.** (2021). Multi-scale multi-physics investigations of the plate boundary in Southern California and northern Baja California. Presented at the PGC Seminar Series, British Columbia, Canada, 7 April.
5. **Share, P.-E.** (2021). Multi-scale multi-physics investigations of the plate boundary in Southern California and northern Baja California. Presented at the University of Wyoming – Wyoming Geophysical Society Seminar Series, Laramie, WY, 12 February.
4. **Share, P.-E.**, Taborik, P., Stepancikova, P., Stemberk, J., Rockwell, T. K., Wade, A., Arrowsmith, J. R., Donnellan, A., Vernon, F. L., & Ben-Zion, Y. (2020). Characterizing the uppermost 100 m structure of the San Jacinto fault zone southeast of Anza, California, through joint analysis of geologic, topographic, seismic and resistivity data. Scheduled for the SSA Annual Meeting, Albuquerque, NM, 29 April (cancelled because of COVID-19).
3. **Share, P.-E.**, & Ben-Zion, Y. (2018). Multi-scale imaging of major fault zones in Southern California. Presented at IGPP, La Jolla, CA, 6 November.
2. **Share, P.-E.**, & Ben-Zion, Y. (2018). Deep fault bimaterial interfaces around Cajon Pass and their implications for large earthquake ruptures. Presented at the Cajon Pass Earthquake Gate Area Workshop (SCEC Annual Meeting), Palm Springs, CA, 9 September.
1. **Share, P.-E.**, Jones, A. G., Evans, R. L., Muller, M. R., Hamilton, M. P., Miensopust, M. P., Khoza, D., Garcia, X., Cole, P., Ngwisanyi, T., Jelsma, H., Aravanis, T., Pettit, W., Webb, S., Wasborg, J., & the SAMTEX team (2011). Magnetotelluric investigations of the southern African lithosphere, with special reference to the modelling of DC current flow between the Otjiwarongo and Katima Mulilo regions, Namibia. Presented at the 7<sup>th</sup> Annual AfricaArray Workshop, Johannesburg, South Africa, 17-22 November.

**Conference Presentations** \_\_\_\_\_ \*indicates an oral presentation \_\_\_\_\_ \*\*indicates student presentation \_\_\_\_\_

69. \*\*Nolan, S., Hooft, E., **Share, P.-E.**, Ashraf, A., Tréhu, A., Wirth, E., Ward, K., & Stone, I. (2022). Cascadia 2021: Developing a 3-D Seismic Velocity Model Across the Central Cascadia Subduction Margin. Abstract T32E-0189 presented at the AGU Fall Meeting, Chicago, IL, 12-16 December.
68. \*\*Herrera, V., Ajah, N., Hansenbury, J., Maroun-Gonzalez, N., Peck, T., Pennington, C., Bedrosian, P., Igonin, N., Kelley, S., Mostafanejad, A., Peacock, J., & **Share, P.-E.** (2022). Geophysical Investigations Into the Structure, Activity and Hydrology of the Valles Caldera, New Mexico. Abstract S32D-0288 presented at the AGU Fall Meeting, Chicago, IL, 12-16 December.
67. \*\*Angel, K., Ozkan-Haller, T. H., & **Share, P.-E.** (2022). Magnetotelluric Constraints on Geologic Structure and Geochemistry at Cotopaxi, Ecuador. Abstract V12C-0067 presented at the AGU Fall Meeting, Chicago, IL, 12-16 December.
66. \*\*Vavra, E., Qiu, H., Chi, B., **Share, P.-E.**, Allam, A. A., Morzfeld, M., Vernon, F., Ben-Zion, Y., & Fialko, Y. A. (2022). The Northeast Dip of the Southern San Andreas Fault from Space Geodetic and Seismic Imaging. Abstract T44A-01 presented at the AGU Fall Meeting, Chicago, IL, 12-16 December.
65. **Share, P.-E.**, Vernon, F. L., & Ben-Zion, Y. (2022). The variable continuous bimaterial interface in the San Jacinto fault zone revealed by dense seismic array analysis of fault zone head waves. Presented at the SCEC Annual Meeting, 11-14 September.
64. \*\*Angel, K. W. E., Ozkan-Haller, T., & **Share, P.-E.** (2022). Magnetotelluric constraints on geologic structure and geochemistry at Cotopaxi, Ecuador. Presented at the SEG/AGU Geophysics of Convergent Margins Workshop, Seattle, WA, 12-14 July.
63. \*\*Reinhard, H., & **Share, P.-E.** (2022). Internal Variations of the Banning and Mission Creek Fault Zones Near the Thousand Palms Oasis Preserve from a Large-N Seismic Array. Presented at the SSA Annual Meeting, Bellevue, WA, 19-23 April.
62. \*\*Vavra, E., Qiu, H., Chi, B., **Share, P.-E.**, Allam, A. A., Morzfeld, M., Vernon, F. L., Ben-Zion, Y., & Fialko, Y. (2021). Seismo-Geodetic Investigations of Subsurface Properties of the Southern San

- Andreas Fault. Abstract S51D-03 presented at the AGU Fall Meeting, New Orleans, LA, 13-17 December.
61. **Share, P.-E.**, Peacock, J. R., Constable, S. C., & Vernon, F. L. (2021). Structural properties of the Southern San Andreas Fault system in northern Coachella Valley from magnetotelluric imaging. Abstract GP25A-0401 presented at the AGU Fall Meeting, New Orleans, LA, 13-17 December.
  60. **Share, P.-E.**, Qiu, H., Chi, B., Vernon, F. L., Fialko, Y., Vavra, E., Allam, A. A., & Ben-Zion, Y. (2021). General Seismic Architecture of the Southern San Andreas Fault Zone around the Thousand Palms Oasis from a Large-N Nodal Array. Presented at the SCEC Annual Meeting (virtual), 12-17 September.
  59. Chi, B., Qiu, H., **Share, P.-E.**, Vernon, F. L., & Ben-Zion, Y. (2021). Reverse-time migration of fault zone reflected waves: Methodology and application to the Southern San Andreas fault. Presented at the SSA Annual Meeting (virtual), 19-23 April.
  58. **Share, P.-E.**, & Vernon, F. L. (2020). Deep San Jacinto fault zone geometric and bimaterial properties from analysis of fault zone head waves recorded by several across-fault arrays. Abstract T040-0002 presented at the AGU Fall Meeting (virtual), 1-17 December.
  57. **Share, P.-E.**, Vernon, F. L., Fialko, Y., Allam, A. A., & Ben-Zion, Y. (2020). Structural properties of the Southern San Andreas fault around Thousand Palms, California, from analysis of large-N seismic array data. Presented at the SCEC Annual Meeting (virtual), 14-17 September.
  56. Brenguier, F., Mordret, A., Ben-Zion, Y., Vernon, F. L., Boué, P., Johnson, C. W., & **Share, P.-E.** (2020). Passive seismic velocity monitoring of natural faults: The FaultScan project. Abstract EGU2020-5480 presented at the EGU General Assembly (virtual), 4-8 May.
  55. \***Share, P.-E.**, Taborik, P., Stepancikova, P., Stemberk, J., Rockwell, T. K., Wade, A., Arrowsmith, J. R., Donnellan, A., Vernon, F. L., & Ben-Zion, Y. (2020). Characterizing the uppermost 100 m structure of the San Jacinto fault zone southeast of Anza, California, through joint analysis of geologic, topographic, seismic and resistivity data. Scheduled for the SSA Annual Meeting, Albuquerque, NM, 27-30 April (cancelled because of COVID-19).
  54. Qin, L., **Share, P.-E.**, Qiu, H., Allam, A. A., Vernon, F. L., & Ben-Zion, Y. (2020). Internal structure of the San Jacinto fault zone at the Ramona Reservation, north of Anza, California, from data of dense seismic arrays. Scheduled for the SSA Annual Meeting, Albuquerque, NM, 27-30 April (cancelled because of COVID-19).
  53. \*Boué, P., Ben-Zion, Y., Brenguier, F., Vernon, F. L., Johnson, C. W., Mordret, A., Coutant, O., **Share, P.-E.**, Beaucé, E., Hollis, D. D., & Lecocq, T. (2019). Train traffic as a powerful noise source for monitoring active faults with seismic interferometry. Abstract S21A-02 presented at the AGU Fall Meeting, San Francisco, CA, 9-13 December.
  52. **Share, P.-E.**, Peacock, J., Constable, S., & Vernon, F. L. (2019). Structural properties of the Southern San Andreas Fault system near Coachella Valley from magnetotelluric imaging. Abstract GP13C-0606 presented at the AGU Fall Meeting, San Francisco, CA, 9-13 December.
  51. Brenguier, F., Boué, P., Ben-Zion, Y., Vernon, F. L., Johnson, C. W., Mordret, A., Coutant, O., **Share, P.-E.**, Beaucé, E., Hollis, D. D., & Lecocq, T. (2019). Train traffic as a powerful noise source for monitoring active faults with seismic interferometry. Presented at the SCEC Annual Meeting, Palm Springs, CA, 8-11 September.
  50. **Share, P.-E.**, Peacock, J., Constable, S., & Vernon, F. L. (2019). Structural properties of the Southern San Andreas Fault system near Coachella Valley from magnetotelluric imaging. Presented at the SCEC Annual Meeting, Palm Springs, CA, 8-11 September.
  49. Hu, J., Qiu, H., **Share, P.-E.**, Qian, J., Zhang, H., & Ben-Zion, Y. (2019). Time-Dependent Earthquake Tomography in Southern California. Presented at the SCEC Annual Meeting, Palm Springs, CA, 8-11 September.
  48. Castro, R. R., **Share, P.-E.**, Vidal, A., Mendoza, L., & Ben-Zion, Y. (2019). High resolution imaging of the San Andreas Fault System in Baja California using triple-difference tomography. Presented at the SCEC Annual Meeting, Palm Springs, CA, 8-11 September.

47. Hu, J., **Share, P.-E.**, Qiu, H., Zhang, H., & Ben-Zion, Y. (2019). Time-Dependent Earthquake Tomography in Southern California. Presented at the SSA Annual Meeting, Seattle, WA, 27-30 April.
46. **Share, P.-E.**, Castro, R. R., Vidal, A., Mendoza, L., & Ben-Zion, Y. (2019). High resolution imaging of the San Andreas Fault System in Baja California using triple-difference tomography. Presented at the SSA Annual Meeting, Seattle, WA, 27-30 April.
45. **Share, P.-E.**, Stepancikova, P., Taborik, P., Stemberk, J., Rockwell, T. K., Wade, A., Arrowsmith, R., Donnellan, A., Vernon, F., & Ben-Zion, Y. (2019). Joint analysis of seismic, geologic, resistivity and topographic data collected within the San Jacinto fault zone trifurcation area near Anza, California. Presented at the SSA Annual Meeting, Seattle, WA, 27-30 April.
44. **Share, P.-E.**, Stepancikova, P., Taborik, P., Stemberk, J., Rockwell, T. K., Wade, A., Arrowsmith, R., Donnellan, A., Vernon, F., & Ben-Zion, Y. (2018). Joint analysis of seismic, geologic, resistivity and topographic data collected within the San Jacinto fault zone trifurcation area near Anza, California. Abstract T51G-0256 presented at the AGU Fall Meeting, Washington, DC, 10-14 December.
43. **Share, P.-E.**, Guo, H., Thurber, C., Zhang, H., & Ben-Zion, Y. (2018). Seismic imaging of the Southern California plate-boundary around the South-Central Transverse Ranges using double-difference tomography and fault zone head waves. Presented at the SCEC Annual Meeting, Palm Springs, CA, 8-12 September.
42. **Share, P.-E.**, Ben-Zion, Y., Thurber, C. H., Zhang, H., & Guo, H. (2017). Seismic imaging of the Southern California plate-boundary around the South-Central Transverse Ranges using double-difference tomography. Presented at the AGU Fall Meeting, New Orleans, LA, 11-15 December.
41. **Share, P.-E.**, Ben-Zion, Y., Thurber, C., Zhang, H., & Guo, H. (2017). Seismic imaging of the Southern California plate-boundary around the South-Central Transverse Ranges using double-difference tomography. Presented at the SCEC Annual Meeting, Palm Springs, CA, 9-13 September.
40. \*Allam, A. A., Lin, F., **Share, P.-E.**, Wang, Y., Rabade, S., Berg, E., Ben-Zion, Y., Vernon, F., Tape, C., Schuster, G., Karplus, M. (2017). Characterizing fault damage zone structure using low-cost large-N temporary deployments of Fairfield nodal three-component instruments: Case studies from the San Jacinto and Denali faults. Presented at the SSA Annual Meeting, Denver, CO, 18-20 April.
39. **Share, P.-E.**, Allam, A. A., Ben-Zion, Y., Lin, F., Vernon, F. L., Karplus, M., Schuster, G. (2017). Internal structure of the San Jacinto fault zone at Blackburn Saddle from a dense linear deployment across the fault. Presented at the SSA Annual Meeting, Denver, CO, 18-20 April.
38. Qiu, H., Ben-Zion, Y., Ross, Z. E., **Share, P.-E.**, Vernon, F. (2017). Internal structure of the San Jacinto fault zone at Dry Wash from data recorded by a dense linear array. Presented at the SSA Annual Meeting, Denver, CO, 18-20 April.
37. Qin, L., Ben-Zion, Y., Qiu, H., **Share, P.-E.**, Ross, Z., & Vernon, F. L. (2017). Internal Structure of the San Jacinto Fault Zone in the trifurcation area Southeast of Anza, California, from Data of Dense Seismic Arrays. Presented at the SSA Annual Meeting, Denver, CO, 18-20 April.
36. **Share, P.-E.**, Allam, A. A., Ben-Zion, Y., Lin, F.-C., & Vernon, F. (2016). Internal structure of the San Jacinto fault zone at Blackburn Canyon from a dense linear deployment across the fault. Abstract S43B-2848 presented at the AGU Fall Meeting, San Francisco, CA, 11-15 December.
35. Allam, A. A., Lin, F.-C., **Share, P.-E.**, Ben-Zion, Y., Vernon, F., Schuster, G. T., & Karplus, M. S. (2016). Constraints on fault damage zone properties and normal modes from a dense linear array deployment along the San Jacinto fault zone. Abstract S43B-2849 presented at the AGU Fall Meeting, San Francisco, CA, 11-15 December.
34. Qin, L., Ben-Zion, Y., Qiu, H., **Share, P.-E.**, Ross, Z. E., & Vernon, F. L. (2016). Internal structure of the San Jacinto fault zone in the trifurcation area southeast of Anza, California, from data of dense linear arrays. Presented at the SCEC Annual Meeting, Palm Springs, CA, 10-14 September.
33. Qiu, H., Ben-Zion, Y., Ross, Z. E., **Share, P.-E.**, & Vernon, F. L. (2016). Internal structure of the San Jacinto fault zone at Jackass Flat from data recorded by a dense linear array. Presented at the SCEC Annual Meeting, Palm Springs, CA, 10-14 September.
32. Allam, A. A., Lin, F.-C., **Share, P.-E.**, Ben-Zion, Y., Vernon, F. L., Schuster, G., & Karplus, M. (2016). Constraints on fault damage zone properties and normal modes from a dense linear array deployment

- along the San Jacinto fault zone. Presented at the SCEC Annual Meeting, Palm Springs, CA, 10-14 September.
31. Ben-Zion, Y., **Share, P.-E.**, Allam, A. A., Lin, F.-C., & Vernon, F. L. (2016). Internal structure of the San Jacinto fault zone at Blackburn Canyon from a dense linear deployment across the fault. Presented at the SCEC Annual Meeting, Palm Springs, CA, 10-14 September.
  30. **Share, P.-E.**, Ben-Zion, Y., Thurber, C. H., Zhang, H., & Guo, H. (2016). High-resolution imaging of the San Andreas Fault around San Gorgonio Pass using fault zone head waves and double-difference tomography, with implications for large earthquake ruptures. Presented at the SCEC Annual Meeting, Palm Springs, CA, 10-14 September.
  29. Qin, L., Ben-Zion, Y., Qiu, H., **Share, P.-E.**, Ross, Z. E., & Vernon, F. (2016). Internal structure of the San Jacinto fault zone in the trifurcation area southeast of Anza, California, from data of spatially-dense linear arrays. Presented at the SSA Annual Meeting, Reno, NV, 20-22 April.
  28. **Share, P.-E.**, Ben-Zion, Y., Ross, Z. E., Qiu, H., & Vernon, F. L. (2015). Characterization of the San Jacinto fault zone northwest of the trifurcation area from earthquake data recorded by a dense linear array. Abstract T51A-2865 presented at the AGU Fall Meeting, San Francisco, CA, 14-18 December.
  27. **Share, P.-E.**, Ben-Zion, Y., & Thurber, C. H. (2015). Elucidating fault zone structures in the South-Central Transverse Ranges region of the San Andreas fault with double-difference tomography. Presented at the SCEC Annual Meeting, Palm Springs, CA, 12-16 September.
  26. **Share, P.-E.**, Ben-Zion, Y., & Thurber, C. H. (2015). Elucidating fault zone structures in the South-Central Transverse Ranges area using double difference tomography. Presented at the SSA Annual Meeting, Pasadena, CA, 21-23 April.
  25. **Share, P.-E.**, Ben-Zion, Y., Ross, Z. E., Qiu, H., & Vernon, F. L. (2015). Characterization of the San Jacinto fault zone northwest of the trifurcation area from earthquake data recorded by a dense linear array. Presented at the SSA Annual Meeting, Pasadena, CA, 21-23 April.
  24. Ozakin, Y., Ben-Zion, Y., **Share, P.-E.**, Zigone, D., Ross, Z., & Vernon, F. (2015). Attenuation properties of the shallow San Jacinto fault zone from data of highly-dense seismic array. Presented at the SSA Annual Meeting, Pasadena, CA, 21-23 April.
  23. Qiu, H., Ben-Zion, Y., Ross, Z. E., **Share, P.-E.**, & Vernon, F. (2015). Internal structure of the San Jacinto fault zone at Jackass Flat from earthquake data recorded by a dense linear array. Presented at the SSA Annual Meeting, Pasadena, CA, 21-23 April.
  22. \* Milev, A., **Share, P.-E.**, Naoi, M., Durrheim, R., Yabe, Y., Ogasawara, H., & Nakatani, M. (2015). Evidence of post-seismic creep type deformations derived by tilt and acoustic emission monitoring of mining induced seismic events. Abstract EGU2015-12371 presented at the EGU General Assembly, Vienna, Austria, 12-17 April.
  21. Milev, A. M., **Share, P.-E.**, Durrheim, R. J., Naoi, M., Yabe, Y., & Ogasawara, H., & Nakatani, M. (2014). Characterization of mining induced seismic events around deep level mining excavations in South Africa using high-precision underground monitoring. Abstract S51A-4382 presented at the AGU Fall Meeting, San Francisco, CA, 15-19 December.
  20. \*Vernon, F., Reyes, J. C., White, M. C. A., Davis, G. A., Meyer, J. C., Sahakian, V. J., Mancinelli, N. J., Ben-Zion, Y., Zigone, D., Harris, C., Liu, X., Qiu, H., **Share, P.-E.**, Ozakin, Y., Hollis, D., & Barklage, M. (2014). Observations at a San Jacinto fault zone site (Sage Brush Flat) using a nodal seismic high frequency array. Abstract T11F-08 presented at the AGU Fall Meeting, San Francisco, CA, 15-19 December.
  19. **Share, P.-E.**, Ben-Zion, Y., Ross, Z., Qiu, H., & Vernon, F. (2014). Characterization of the San Jacinto Fault Zone northwest of the trifurcation area from dense linear array data. Presented at the SCEC Annual Meeting, Palm Springs, CA, 6-10 September.
  18. Qiu, H., Ben-Zion, Y., Ross, Z., **Share, P.-E.**, & Vernon, F. (2014). Internal structure of the San Jacinto fault zone at Jackass Flat from data recorded by a dense linear array. Presented at the SCEC Annual Meeting, Palm Springs, CA, 6-10 September.
  17. \*Khoza, D., Jones, A., Muller, M., Webb, S., **Share, P.-E.**, & the SAMTEX team (2013). Lithospheric structure of an Archean craton and adjacent mobile melt revealed from 2D and 3D inversion of

- magnetotelluric data: Example from southern Congo Craton in northern Namibia. Presented at the 13<sup>th</sup> SAGA Biennial Technical Meeting and Exhibition, Kruger National Park, South Africa, 6-9 October.
16. \*Khoza, D., Jones, A., Muller, M., Webb, S., **Share, P.-E.**, & the SAMTEX team (2013). Tectonic evolution of the Limpopo Belt: Constraints from magnetotelluric data. Presented at the 13<sup>th</sup> SAGA Biennial Technical Meeting and Exhibition, Kruger National Park, South Africa, 6-9 October.
  15. \* **Share, P.-E.**, Milev, A., Durrheim, R., Kuijpers, J., Ogasawara, H. (2013). Relating tilt measurements recorded at Mponeng gold mine, South Africa, to the rupture of an M 2.2 event. Presented at 8<sup>th</sup> International Symposium on Rockbursts and Seismicity in Mines, St. Petersburg and Moscow, Russia, 1-7 September.
  14. \* Milev, A., **Share, P.-E.**, Durrheim, R., Naoi, M., Nakatani, M., Yabe, Y., & Ogasawara, H. (2013). Joint interpretation of high-precision tilt data and mining induced seismic events recorded underground in deep level gold mine in South Africa. Abstract EGU2013-633 presented at the EGU General Assembly, Vienna, Austria, 7-12 April.
  13. \*Jones, A. G., Muller, M. R., Evans, R. L., Miensopust, M. P., Khoza, D. T., & the SAMTEX team (including **Share, P.-E.**) (2011). Results from SAMTEX: The Southern African lithospheric mantle - electrical structures and geometries and comparison with seismological information. Abstract T32A-05 presented at the AGU Fall Meeting, San Francisco, CA, 5-9 December.
  12. \* **Share, P.-E.**, Jones, A. G., Muller, M. R., Miensopust, M. P., Khoza, D., Webb, S. J., Thunehed, H., & the SAMTEX team (2011). Modelling of DC current flow between the Otjiwarongo and Katima Mulilo regions, Namibia. Presented at the Geosynthesis Conference and Exhibition, Cape Town, South Africa, 28 August – 2 September.
  11. Khoza, D. T., Jones, A. G., Muller, M. R., Miensopust, M. P., Webb, S. J., & **Share, P.-E.** (2010). Electromagnetic evidence of high angle convergence between the Congo and Kalahari cratons in southern Africa. Abstract D123A-1966 presented at the AGU Fall Meeting, San Francisco, CA, 13-17 December.
  10. **Share, P.-E.**, Jones, A. G., Muller, M. R., Miensopust, M. P., Khoza, D., Webb, S. J., Thunehed, H., & the SAMTEX team (2010). Prediction of DC return current flow in northern Namibia and Botswana. Presented at the 6<sup>th</sup> Annual AfricaArray Workshop, Johannesburg, South Africa, 19-22 November.
  9. **Share, P.-E.**, Jones, A. G., Muller, M. R., Miensopust, M. P., Khoza, D., Webb, S. J., Thunehed, H., & the SAMTEX team (2010). Prediction of DC return current flow in northern Namibia and Botswana. Presented at the 20<sup>th</sup> Electromagnetic Induction Workshop, Giza, Egypt, 18-24 September.
  8. \* Miensopust, M. P., Jones, A. G., Muller, M. R., Evans, R. L., & the SAMTEX team (including **Share, P.-E.**) (2010). Lithospheric structures and geometries in northeastern Botswana revealed through SAMTEX magnetotelluric profiling. Abstract EGU2010-9672 presented at the EGU General Assembly, Vienna, Austria, 2-7 May.
  7. \***Share, P.-E.**, Jones, A. G., Muller, M. R., Miensopust, M. P., Khoza, D. T., Fourie, C. J. S., Webb, S. J., & Thunehed, H. (2009). Prediction of DC current flow between the Otjiwarongo and Katima Mulilo regions, using 3D DC resistivity forward modelling and magnetotelluric and audio-magnetotelluric data recorded during SAMTEX. Abstract GP43C-06 presented at the AGU Fall Meeting, San Francisco, CA, 14-18 December.
  6. \*Jones, A. G., Evans, R. L., Muller, M. R., Hamilton, M. P., Miensopust, M. P., Garcia, X., Cole, P., Ngwisanyi, T., Hutchins, D., Fourie, C. J. S., Evans, S., Jelsma, H., Aravanis, T., Pettit, W., Webb, S., Wasborg, J., & the SAMTEX team (including **Share, P.-E.**) (2009). The SAMTEX experiment: Overview and preliminary results. Presented at the 11<sup>th</sup> SAGA Biennial Technical Meeting and Exhibition, Swaziland, 13-18 September.
  5. \* Muller, M. R., Jones, A. G., Evans, R. L., Grutter, H. S., Hatton, C., Garcia, X., Hamilton, M. P., Miensopust, M. P., Cole, P., Ngwisanyi, T., Hutchins, D., Fourie, C. J. S., Jelsma, H. A., Evans, S. F., Aravanis, T., Pettit, W., Webb, S., Wasborg, J., & the SAMTEX team (including **Share, P.-E.**) (2009). Rapid Mesozoic thermal and chemical modification of the Rehoboth Terrane and Kaapvaal Craton from broadband magnetotellurics and xenolith geochemistry. Presented at the 11<sup>th</sup> SAGA Biennial Technical Meeting and Exhibition, Swaziland, 13-18 September.



4. \* Khoza, D. T., Jones, A. G., Muller, M. R., Evans, R. L., Hamilton, M. P., Miensoopust, M. P., Garcia, X., Cole, P., Ngwisanyi, T., Hutchins, D., Pettit, W., Jelsma, H., Aravanis, T., Fourie, C. J. S., Webb, S., Wasborg, J., & the SAMTEX team (including **Share, P.-E.**) (2009). Magnetotelluric imaging across a Neoproterozoic collision zone: Damara Belt and surrounding tectonic blocks. Presented at the 11<sup>th</sup> SAGA Biennial Technical Meeting and Exhibition, Swaziland, 13-18 September.
3. \* Miensoopust, M. P., Jones, A. G., Muller, M. R., Hamilton, M. P., Garcia, X., Evans, R. L., Cole, P., Ngwisanyi, T., Hutchins, D., Fourie, C. J. S., Jelsma, H., Aravanis, T., Pettit, W., Webb, S., Wasborg, J., & the SAMTEX team (including **Share, P.-E.**) (2009). Magnetotelluric study in northeastern Botswana. Presented at the 11<sup>th</sup> SAGA Biennial Technical Meeting and Exhibition, Swaziland, 13-18 September.
2. \* **Share, P.-E.**, Jones, A. G., Evans, R. L., Muller, M. R., Hamilton, M. P., Khoza, D., Miensoopust, M. P., Garcia, X., Cole, P., Ngwisanyi, T., Hutchins, D., Fourie, C. J. S., Jelsma, H. A., Aravanis, T., Pettit, W., Webb, S. J., Wasborg, J., & the SAMTEX team (2009). Prediction of DC current flow between the Otjiwarongo and Katima Mulilo regions, using 3D DC resistivity forward modelling and magnetotelluric and audio-magnetotelluric data recorded during SAMTEX. Presented at the 11<sup>th</sup> SAGA Biennial Technical Meeting and Exhibition, Swaziland, 13-18 September.
1. \* Jones, A. G., Muller, M. R., Miensoopust, M. P., Khoza, D., **Share, P.-E.**, & the SAMTEX team (2009). Results from SAMTEX: The Southern African lithospheric mantle - electrical structures and geometries and comparison with seismological information. Abstract EGU2009-6789 presented at the EGU General Assembly, Vienna, Austria, 19-24 April.

### **Teaching Experience**

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- 2022-present Faculty at the Summer of Applied Geophysical Experience (SAGE, passive seismology)
- 2022-present OSU Lecturer for GPH650 – Geophysical Inverse Theory
- 2021-present OSU Lecturer for GEO463/563 – Geophysics and Tectonics
- 2021-present OSU Lecturer for eGEO100 – Natural Disasters: Hollywood versus Reality
- 2013-2018 USC Teaching Assistant for courses GEOL130 and CORE103
- 2012 Tutor in high school physics and mathematics
- 2008 Teaching Assistant for the AfricaArray field school (potential field methods)

### **Advising and Mentoring Experience**

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- 2021-present OSU graduate and undergraduate students – Hannah Reinhard, Nathaniel Edmonds, Sarah Nolan, Rachel Way, Kaitlan Angel
- 2015 USC Young Researchers Program (YRP) high school student mentor
- 2011 Co-supervised Miss Ariane Wetie (University of the Witwatersrand B.Sc. Hons. Geophysics student)

### **Field Experience**

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- 2022 Seismic field work (active and passive) for SAGE, Sante Fe, New Mexico
- 2022 Seismic nodal array deployments, Corvallis, Oregon
- 2019 Magnetotelluric imaging project, Southern San Andreas fault, California
- 2018 Magnetotelluric imaging project, Mono Basin, California
- 2014-2020 Installation and management of broadband and nodal-type seismometers, Southern California
- 2011-2013 Installation and management of underground in-mine seismic instrumentation as part of Japanese-German underground acoustic emission research in South Africa (JAGUARS)
- 2009 Participant in the Summer of Applied Geophysical Experience field school, Santa Fe, NM
- 2008 Magnetotelluric and Audio-magnetotelluric fieldwork, Botswana, Namibia and South Africa - Southern African Magnetotelluric Experiment (SAMTEX)
- 2007 Participant in the AfricaArray geophysical field school (South Africa)

## **Professional Service**

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2022-present Summer of Applied Geophysical Experience faculty member (passive seismology)  
2022-present IRIS (EarthScope Consortium) Summer Intern application review committee  
2021 OSU Salmon Bowl volunteer  
2020-present OSU UNAVCO representative  
2020-present Community Organized, Peer Assisted Expertise Exchange in Electromagnetic Geophysics (COOPERATE EM) organizing committee member  
2020-present IRIS Electromagnetic Advisory Committee (EMAC) member and chair (2022-present)  
2020-present American Geophysical Union (AGU) session convener  
2017-present Reviewer for *Bulletin of the Seismological Society of America*, *Earth and Space Science*, *Geophysical Research Letters*, *Geosphere*, *Journal of Geophysical Research*, *Pure and Applied Geophysics*, *Seismological Research Letters*, *Sensors*  
2016-2017 USC Department of Earth Sciences Graduate Student Representative  
2015 Program Coordinator for USC Young Researchers Program

## **Relevant Skills**

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Expert experience (15+ years) with the Windows, Linux and Unix environments as well as programming in Fortran (f77 and f90), MATLAB and Python.

## **Society Memberships**

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2015-Present Member of the American Geophysical Union (AGU)  
2015-Present Member of the Seismological Society of America (SSA)  
2007-2009 Member of the Society of Exploration Geophysicists (SEG)  
2007 Member of the University of Witwatersrand Student Geophysical Society (WSGS)  
2007 Member of the South African Geophysical Association (SAGA)