

1. COLLEEN A. DALTON

Professor

Brown University | Department of Earth, Environmental and Planetary Sciences

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2. EDUCATION

- 2007 Harvard University, Cambridge, MA
Ph.D. in Geophysics. Thesis supervisor: Göran Ekström.
Thesis title: The global attenuation structure of the upper mantle.
- 2000 Brown University, Providence, RI
Sc.B. in Geology-Physics/Math. Magna cum laude with honors.

3. PROFESSIONAL APPOINTMENTS

- 2023 – present *Professor*, Department of Earth, Environmental and Planetary Sciences, Brown University
- 2017 – 2023 *Associate Professor*, Department of Earth, Environmental and Planetary Sciences, Brown University
- 2014 – 2017 *Assistant Professor*, Department of Earth, Environmental and Planetary Sciences, Brown University
- 2008 – 2013 *Assistant Professor*, Department of Earth and Environment, Boston University
- 2008 – 2021 *Adjunct Associate Research Scientist*, Lamont-Doherty Earth Observatory, Columbia University
- 2007 – 2008 *Postdoctoral Fellow*, Lamont-Doherty Earth Observatory, Columbia University
- 2002 – 2007 *Graduate Research Assistant*, Department of Earth and Planetary Sciences, Harvard University
- 2000 – 2002 *Geologist*, Applied Science Associates, Narragansett, Rhode Island

4. PUBLICATIONS

a. Refereed articles ([†]*undergrad advisee*; ^{*}*grad-student advisee*; [^]*post-doctoral advisee*)

Ma, Z., R.R. Mir, **C.A. Dalton**, and K.G. Godfrey, Choosing appropriate regularization parameters by splitting data into training and validation sets—application in global surface wave tomography, *Seismological Research Letters*, in revision.

Staats, M., K. Aderhold, K. Hafner, **C.A. Dalton**, M. Flanagan, H. Lau, F.J. Simons, M. Vallée S.S. Wei, W. Yeck, A. Frassetto, R. Bubsy, Inconsistent citation of the Global Seismographic Network in Scientific Publications, *Seismological Research Letters*, <https://doi.org/10.1785/0220230004>, 2023.

Tsai, V.C., C. Huber, and **C.A. Dalton**, Toward the geologic parameterization of seismic tomography, *Geophysical Journal International*, 234, <https://doi.org/10.1093/gji/ggad140>, 2023.

*Hariharan, A., and **C.A. Dalton**, Love wave tomography of the United States, *Geophysical Research Letters*, 49, e2022GL101374. <https://doi.org/10.1029/2022GL101374>, 2022.

Gama, I., K.M. Fischer, **C.A. Dalton**, and Z. Eilon, Variations in lithospheric thickness across the Denali Fault and in northern Alaska, *Geophysical Research Letters*, 49, e2022GL101256. <https://doi.org/10.1029/2022GL101256>, 2022.

^Russell, J.B., and **C.A. Dalton**, Rayleigh wave attenuation and amplification measured at ocean-bottom seismometer arrays using Helmholtz tomography, *Journal of Geophysical Research*, 127, e2022JB025174. <https://doi.org/10.1029/2022JB025174>, 2022.

Herbert, T.D., **C.A. Dalton**, Z. Liu, A. Salazar[†], W. Si, and D.S. Wilson, Tectonic degassing drove global temperature trends since 20 Myr, *Science*, 377, 116-119, [doi:10.1126/science.abl43](https://doi.org/10.1126/science.abl43), 2022.

- T.D.H. and C.A.D. contributed equally to this work

Dalton, C.A., D.S. Wilson, and T.D. Herbert, Evidence for a global slowdown in seafloor spreading since 15 Ma, *Geophysical Research Letters*, 49, e2022GL097937, <https://doi.org/10.1029/2022GL097937>, 2022.

*Hariharan, A., **C.A. Dalton**, J.C. Babikoff*, and G. Ekström, Controls on surface wave overtone interference, *Geophysical Journal International*, 228, 1665-1683, <https://doi.org/10.1093/gji/ggab424>, 2022.

Gama, I., K.M. Fischer, Z. Eilon, H.E. Krueger, **C.A. Dalton**, and L.M. Flesch, Shear wave velocity structure beneath Alaska from a Bayesian joint inversion of Sp receiver functions and Rayleigh wave phase velocities, *Earth and Planetary Science Letters*, 560, <https://doi.org/10.1016/j.epsl.2021.116785>, 2021.

Ringler, A.T., R.E. Anthony, **C.A. Dalton**, and D.C. Wilson, Rayleigh wave amplitude uncertainty across the Global Seismographic Network and potential implications for global tomography, *Bulletin of the Seismological Society of America*, <https://doi.org/10.1785/0120200255>, 2021.

Fischer, K.M., C.A. Rychert, **C.A. Dalton**, M.S. Miller, C. Beghein, and D.L. Schutt, A comparison of oceanic and continental mantle lithosphere, *Physics of the Earth and Planetary Interiors*, 309, <https://doi.org/10.1016/j.pepi.2020.106600>, 2020.

^Ma, Z., **C.A. Dalton**, J.B. Russell, J.B. Gaherty, G. Hirth, and D.W. Forsyth, Seismic attenuation and anelastic mechanisms in the central Pacific upper mantle, *Earth and Planetary Science Letters*, 536, doi.org/10.1016/j.epsl.2020.116148, 2020.

- *Hariharan, A., **C.A. Dalton**, Z. Ma., and G. Ekström, Evidence of overtone interference in fundamental-mode Rayleigh wave phase and amplitude measurements, *Journal of Geophysical Research*, 125, doi:10.1029/2019JB018540, 2020.
- *Babikoff, J.C., and **C.A. Dalton**, Long-period Rayleigh wave phase velocity tomography using USArray, *Geochemistry, Geophysics, Geosystems*, 20, <https://doi.org/10.1029/2018GC008073>, 2019.
- *Godfrey, K.E., **C.A. Dalton**, Z. Ma, V. Hjörleifsdóttir, and G. Ekström, A comparison of approaches to the prediction of surface-wave phase velocity, *Geophysical Journal International*, 217, doi: 10.1093/gji/ggz096, 2019.
- ^Ma, Z., and **C.A. Dalton**, Evidence for dehydration-modulated small-scale convection in the oceanic upper mantle from seafloor bathymetry and Rayleigh wave phase velocity, *Earth and Planetary Science Letters*, 510, doi.org/10.1016/j.epsl.2018.12.030, 2019.
- ^Eilon, Z., K.M. Fischer, and **C.A. Dalton**, An adaptive Bayesian inversion for upper mantle structure using surface waves and scattered body waves, *Geophysical Journal International*, 214, <https://doi.org/10.1093/gji/ggy137>, 2018.
- Mancinelli, N.J., K.M. Fischer, and **C.A. Dalton**, How sharp is the cratonic lithosphere-asthenosphere transition? *Geophysical Research Letters*, 43, <https://doi.org/10.1002/2017GL074518>, 2017.
- *Godfrey, K.E., **C.A. Dalton**, and J. Ritsema, Seafloor age dependence of Rayleigh wave phase velocities in the Indian Ocean, *Geochemistry, Geophysics, Geosystems*, 18, 1926-1942, doi:10.1002/2017GC006824, 2017.
- Dalton, C.A.**, X. Bao^, and Z. Ma^, The thermal structure of cratonic lithosphere from global Rayleigh wave attenuation, *Earth and Planetary Science Letters*, <http://dx.doi.org/10.1016/j.epsl.2016.10.014>, 2017.
- ^Ma, Z., and **C.A. Dalton**, Evolution of the lithosphere in the Indian Ocean from combined earthquake and ambient-noise tomography, *Journal of Geophysical Research*, 121, doi:10.1002/2016JB013516, 2017.
- ^Bao, X., **C.A. Dalton**, and J. Ritsema, Effects of elastic focusing on global models of Rayleigh wave attenuation, *Geophysical Journal International*, 207, doi:10.1093/gji/ggw322, 2016.
- ^Bao, X., **C.A. Dalton**, G. Jin, J.B. Gaherty, and Y. Shen, Imaging Rayleigh wave attenuation with USArray, *Geophysical Journal International*, 206, doi:10.1093/gji/ggw151, 2016.
- *Hirsch, A.C., **C.A. Dalton**, and J. Ritsema, Constraints on shear velocity in the cratonic upper mantle from Rayleigh wave phase velocity, *Geochemistry, Geophysics, Geosystems*, 16, doi:10.1002/2015GC006066, 2015.

- *James, E.K., **C.A. Dalton**, and J.B. Gaherty, Rayleigh wave phase velocities in the Atlantic upper mantle, *Geochemistry, Geophysics, Geosystems*, doi:10.1002/2014GC005518, 2014.
- Dalton, C.A.**, C.H. Langmuir, and A. Gale, Geophysical and geochemical evidence for deep temperature variations beneath mid-ocean ridges, *Science*, 344, doi:10.1126/science.1249466, 2014.
- Gale, A., C.H. Langmuir, and **C.A. Dalton**, The global systematics of ocean ridge basalts and their origin, *Journal of Petrology*, 55, doi:10.1093/petrology/egu017, 2014.
- Dalton, C.A.**, V. Hjörleifsdóttir, and G. Ekström, A comparison of approaches to the prediction of surface-wave amplitude, *Geophysical Journal International*, 196, doi:10.1093/gji/ggt365, 2014.
- Dalton, C.A.**, and J.B. Gaherty, Seismic anisotropy in the continental crust of northwestern Canada, *Geophysical Journal International*, 193, doi:10.1093/gji/ggs108, 2013.
- Gale, A., **C.A. Dalton**, C.H. Langmuir, Y. Su, and J.-G. Schilling, The mean composition of ocean ridge basalts, *Geochemistry, Geophysics, Geosystems*, doi:10.1029/2012GC004334, 2013.
- Dalton, C.A.**, C.P. Conrad, and A.M. Trehu, What is the Lithosphere-Asthenosphere Boundary?, *Eos, Transactions, AGU*, 92, 51, p. 481, 2011.
- Dalton, C.A.**, J.B. Gaherty, and A.M. Courtier, Crustal V_s structure in northwestern Canada: Imaging the Cordillera-craton transition with ambient-noise tomography, *Journal of Geophysical Research*, 116, doi:10.1029/2011JB008499, 2011.
- Dalton, C.A.**, and U.H. Faul, The oceanic and cratonic upper mantle: Clues from joint interpretation of global velocity and attenuation models, *Lithos*, 120, 160–172, doi:10.1016/j.lithos.2010.08.020, 2010.
- Dalton, C.A.**, G. Ekström, and A.M. Dziewonski, Global seismological shear velocity and attenuation: A comparison with experimental observations, *Earth and Planetary Science Letters*, 284, 65–75, doi:10.1016/j.epsl.2009.04.009, 2009.
- Dalton, C.A.**, G. Ekström, and A.M. Dziewonski, The global attenuation structure of the upper mantle, *Journal of Geophysical Research*, 113, doi:10.1029/2007JB005429, 2008.
- Dalton, C.A.**, and G. Ekström, Global models of surface-wave attenuation, *Journal of Geophysical Research*, 111, doi:10.1029/2005JB003997, 2006.
- Dalton, C.A.**, and G. Ekström, Constraints on global maps of phase velocity from surface-wave amplitudes, *Geophysical Journal International*, 167, doi:10.1111/j.1365-246X.2006.03142.x, 2006.

Ekström, G., C.A. Dalton, and M. Nettles, Observations of time-dependent errors in the long-period instrument gain at global seismic stations, *Seismological Research Letters*, 77, 12–22, 2006.

b. Invited lectures since 2010

Invited Keynote and Conference Presentations

- “Changes in the rate of ocean crust production over the past 20 Myr and implications for global climate”, COOL Climate-Tectonics Workshop, MIT, August 2023.
- “The structure and thickness of cratonic lithosphere from seismic attenuation”, AGU Fall Meeting, Section DI-008, December 2022
- AGU Fall Meeting, Section DI-13, December 2020 (declined).
- “Shear attenuation beneath the central Pacific and implications for anelasticity and hydration in the oceanic upper mantle”, AGU Fall Meeting, Section MR34, San Francisco, CA. December 2019.
- “The evolution of a continent as revealed by seismic-wave attenuation”, EarthScope Speaker Series, five talks scheduled during 2018-2019.
- “Distinctions between cratonic and Phanerozoic lithosphere in North America”, EarthScope National Meeting, Anchorage, AK. May 2017.
- “Estimating mantle temperature and composition: Combining constraints from seismology, mineral physics, and geochemistry”, Cooperative Institute for Dynamic Earth Research, Pre-AGU Workshop, University of California, Berkeley. December 2015.
- “Geophysical and geochemical evidence for deep temperature variations beneath mid-ocean ridges”, AGU Fall Meeting, Section DI23, San Francisco, CA. December 2014.
- “Science grand challenges: Thermochemical dynamics and volatile distribution”, Incorporated Research Institutions for Seismology (IRIS) Workshop, Sunriver, OR. June 2014.
- “Geophysical and geochemical evidence for deep temperature variations beneath mid-ocean ridges”, European Geosciences Union General Assembly, Vienna. April 2014.
- “The nature of cratonic lithosphere: Combining constraints from seismology, mineral physics, and petrology”, European Geosciences Union General Assembly, Vienna. April 2014.
- “Taking the temperature of the mantle: A global comparison of seismic models, axial ridge depths, and the petrology of mid-ocean-ridge basalts”, AGU Fall Meeting, Section V23, San Francisco, CA. December 2013.
- “Imaging and interpreting seismic attenuation in the mantle”, CIDER Mantle Attenuation Workshop, Lamont-Doherty Earth Observatory, Columbia University. May 2013.
- “Estimating temperature and composition in the mantle from seismic models”, Cooperative Institute for Dynamic Earth Research, Post-AGU Workshop, University of California, Berkeley. December 2011.
- “Constraints on the thermal, chemical, and mineralogical properties of the continental lithosphere”, EarthScope Institute on the Lithosphere-Asthenosphere Boundary, Portland, OR. September 2011.
- “Estimating the temperature and composition of the mantle from seismic attenuation and velocity”, Consortium for Minerals Properties Research Annual Meeting, Williamsburg, VA. June 2011.

“Seismic constraints on the thermal, chemical, and mineralogical properties of the continental upper mantle”, Gordon Research Conference on Interior of the Earth, Mount Holyoke College, MA. June 2011.

“Imaging attenuation in the mantle and interpreting seismic images”, Cooperative Institute for Dynamic Earth Research, Seismology Lecture, University of California, Santa Barbara. July 2010.

Invited Departmental Lectures

December 2023—Columbia Univ., Lamont-Doherty Earth Observatory Colloquium
May 2023—MIT Geophysics Seminar
February 2023—Washington Univ. of St. Louis, Earth & Planetary Sciences Colloquium
November 2022—Stony Brook Univ., Dept. of Geosciences Colloquium
February 2022—Univ. of Memphis, Center for Earthquake Research & Information Seminar
April 2021—Scripps Institution of Oceanography, IGPP Virtual Seminar Series
March 2021—Univ. of Memphis, Center for Earthquake Research & Information Seminar
September 2020—Brown Univ., Earth, Environmental and Planetary Sciences Colloquium
February 2020—Michigan State Univ., Earth and Environmental Sciences Colloquium
February 2019—Boston College, Earth and Environmental Sciences Colloquium
October 2018—Columbia Univ., Lamont-Doherty Earth Observatory Colloquium
September 2018—Yale Univ., Geology and Geophysics Colloquium
November 2017—Cornell Univ., Earth & Atmospheric Sciences Department Seminar
September 2017—Harvard Univ., BISEPPS seminar
March 2017—The Univ. of Texas at Austin, Institute for Geophysics Seminar
March 2016—UCLA, Earth, Planetary, & Space Sciences Colloquium
March 2016—Woods Hole Oceanographic Institution, Geochemistry & Geophysics Seminar
January 2015—Univ. of Massachusetts, Amherst, Geosciences Guest Lecture Series
November 2014—Princeton Univ., Geoscience Department Seminar
February 2013—Brown Univ., Solid Earth Dynamics Lunch Bunch
February 2013—Brown Univ., Geological Sciences Colloquium
October 2012—Lamont-Doherty Earth Observatory, Attenuation Seminar
April 2012—Yale Univ., Geology and Geophysics Colloquium
October 2011—GSO/URI, Marine Geology & Geophysics Seminar Series
April 2011—Friday Informal Seminar, Earth Resources Laboratory, MIT
October 2010—Univ. of Southern California, Earth Sciences Colloquium
October 2010—Colby College Geoseminar
May 2010—Scripps Institution of Oceanography, Earth Section Seminar Series
May 2010—Lamont-Doherty Earth Observatory, Seismology Seminar
March 2010—Science for the Public, “Earthquakes!” Lecture
February 2010—Princeton Univ., Solid Earth Brown Bag Seminar
January 2010—Carnegie Institution, Department of Terrestrial Magnetism Seminar

c. Abstracts since 2020 ([†]*undergrad advisee*; ^{*}*grad-student advisee*; [^]*post-doctoral advisee*)

- [^]Russell, J.B., **C.A. Dalton**, C. Havlin, B.Holtzman, Z.C. Eilon, J.B. Gaherty, and D. Forsyth, The anelastic fingerprint of small-scale convection: Grain-size reduction in Pacific asthenosphere revealed by regional shear attenuation, Abstract submitted for the 2024 Seismological Society of America meeting, Apr. 2024.
- Gaherty, J.B., Z. Eilon, J.B. Russell, J. Phillips, A. Hariharan, **C.A. Dalton**, and D.W. Forsyth, An ocean-bottom view of mantle convection beneath the Pacific basin, Abstract submitted for the 2024 Seismological Society of America meeting, Apr. 2024.
- Dalton, C.A.**, T.D. Herbert, D.S. Wilson, and W. Si, Changes in the rate of ocean crust production over the past 19 Myr: Implications for sea level, mantle heat loss, and climate. Abstract submitted for the 2024 European Geosciences Union General Assembly, Apr. 2024.
- Bowers, S., K.M. Fischer, and **C.A. Dalton**, Imaging the Antarctic lithosphere with Sp converted waves, Abstract presented at the 2023 Fall Meeting, AGU, Dec. 2023.
- ^{*}Huang, Y., **C.A. Dalton**, and K.M. Fischer, Seismic structure of the cratonic lithosphere in Fennoscandia from the joint inversion of Rayleigh wave phase velocity and amplification, Abstract presented at the 2023 Fall Meeting, AGU, Dec. 2023.
- ^{*}Krueger, H.E., **C.A. Dalton**, J.B. Russell, and K.M. Fischer, Exploring regional-scale heterogeneity in the Antarctic uppermost mantle with Rayleigh phase velocities and attenuation, Abstract presented at the 2023 Fall Meeting, AGU, Dec. 2023.
- [^]Russell, J.B., **C.A. Dalton**, C. Havlin, B.K. Holtzman, Z. Eilon, J.B. Gaherty, and D.W. Forsyth, Dynamic oceanic asthenosphere revealed by high shear attenuation in the Pacific, Abstract presented at the 2023 Fall Meeting, AGU, Dec. 2023.
- Talavera-Soza, S., R. van Tent, L.J. Cobden, U. Faul, G. Laske, **C.A. Dalton**, and A. Deuss, Constraining temperature in the transition zone using normal modes and surface waves, Abstract presented at the 2023 Fall Meeting, AGU, Dec. 2023.
- [†]Wilderman, D., **C.A. Dalton**, and A. Hariharan, Inferring mantle flow patterns beneath Iceland from the phase velocity of Rayleigh and Love waves, Abstract presented at the 2023 Fall Meeting, AGU, Dec. 2023.
- ^{*}Huang, Y., and **C.A. Dalton**, Estimating the local amplification of Rayleigh waves with regional broadband seismic arrays, Abstract presented at the 2023 SAGE-GAGE workshop, Mar. 2023.
- Gaherty, J.B., Z. Eilon, J.B. Russell, J. Phillips, A. Hariharan, **C.A. Dalton**, and D.W. Forsyth, An ocean-bottom view of mantle convection beneath the Pacific basin, Abstract presented at the 2023 SAGE-GAGE workshop, Mar. 2023.
- Dalton, C.A.**, The structure and thickness of cratonic lithosphere from seismic attenuation, Abstract presented at the 2022 Fall Meeting, AGU, Dec. 2022.
- [†]Jones, U., **C.A. Dalton**, and J.B. Russell[^], Rayleigh wave phase velocity and attenuation tomography of Alaska using the EarthScope Transportable Array, Abstract presented at the 2022 Fall Meeting, AGU, Dec. 2022.
- [†]Schultz, A., and **C.A. Dalton**, Imaging the crust and upper mantle of the Pacific Northwest using Rayleigh wave phase velocities, Abstract presented at the 2022 Fall Meeting, AGU, Dec. 2022.
- ^{*}Hariharan, A., and **C.A. Dalton**, High-resolution constraints on radial anisotropy in the North American lithosphere, Abstract presented at the 2022 Fall Meeting, AGU, Dec. 2022.
- ^{*}Huang, Y., **C.A. Dalton**, and K.M. Fischer, Toward a new model of the seismic structure of

- cratonic lithosphere in Fennoscandia, Abstract presented at the 2022 Fall Meeting, AGU, Dec. 2022.
- [^]Russell, J.B., **C.A. Dalton**, C. Havlin, and B.K. Holtzman, Quantifying asthenospheric temperature and partial melt in the Pacific using ocean-bottom observations of shear attenuation and velocity, Abstract presented at the 2022 Fall Meeting, AGU, Dec. 2022.
- Tsai, V.C., C. Huber, and **C.A. Dalton**, Toward the geologic parameterization of seismic tomography, Abstract presented at the 2022 Fall Meeting, AGU, Dec. 2022.
- [^]Russell, J.B., and **C.A. Dalton**, Pacific upper-mantle shear attenuation and velocity from ocean-bottom observations and implications for asthenospheric temperature and melt, Abstract presented at the 2022 SAGE/GAGE workshop, Pittsburgh, PA, Jun. 2022.
- [^]Russell, J.B., and **C.A. Dalton**, Upper-mantle shear attenuation and velocity from ocean-bottom observations in the Pacific, Abstract presented at the 2022 Seismological Society of America Meeting, Bellevue, WA, Apr. 2022.
- Dalton, C.A.**, and J.C. Babikoff*, Rayleigh wave amplification: sensitivity to elastic structure and application to Alaskan crust and upper mantle, Abstract presented at the 2021 Fall Meeting, AGU, Dec. 2021.
- [^]Russell, J.B., **C.A. Dalton**, and A. Hariharan*, Array-based observations of Rayleigh wave attenuation in the Pacific, Abstract presented at the 2021 Fall Meeting, AGU, Dec. 2021.
- [†]Grossman, J., A. Hariharan*, and **C.A. Dalton**, A new metric for improving the quality of Rayleigh wave phase-velocity measurements, Abstract presented at the 2021 Fall Meeting, AGU, Dec. 2021.
- *Hariharan, A., and **C.A. Dalton**, Minimizing Love wave overtone interference in phase velocity measurements via targeted selection of earthquake sources, Abstract presented at the 2021 Fall Meeting, AGU, Dec. 2021.
- Gama, I., K.M. Fischer, Z. Eilon, H.E. Krueger, **C.A. Dalton**, and L.M. Flesch, Imaging the lithosphere and asthenosphere beneath Alaska with a Bayesian inversion of Sp and Ps phases and Rayleigh waves, Abstract presented at the 2021 Fall Meeting, AGU, Dec. 2021.
- [^]Ma, Z., **C.A. Dalton**, J.B. Russell, J.B. Gaherty, G. Hirth, and D.W. Forsyth, Shear attenuation and anelastic mechanisms in the central Pacific upper mantle, Abstract presented at the 2020 Fall Meeting, AGU, Dec. 2020.
- Dalton, C.A.**, T.D. Herbert, D.S. Wilson, and W. Si, Changes in the rate of ocean crust production over the past 20 Myr, Abstract presented at the 2020 Fall Meeting, AGU, Dec. 2020.
- [†]Munguia, E., and **C.A. Dalton**, Imaging the lithosphere of the Colorado Plateau using Rayleigh waves phase velocities, Abstract presented at the 2020 Fall Meeting, AGU, Dec. 2020.
- Herbert, T.D., **C.A. Dalton**, A.M. Salazar[†], W. Si, Z. Liu, and D.S. Wilson, Global temperature trends since 20 Ma driven by tectonic degassing of carbon dioxide, Abstract presented at the 2020 Fall Meeting, AGU, Dec. 2020.
- *Hariharan, A., **C.A. Dalton**, J.C. Babikoff*, and G. Ekström, Controls on surface wave overtone interference, Abstract presented at the 2020 Fall Meeting, AGU, Dec. 2020.
- Gama, I., K.M. Fischer, Z. Eilon, H.E. Krueger, **C.A. Dalton**, and L.M. Flesch, The seismic structure of the Alaskan crust and upper mantle, Abstract presented at the 2020 Fall Meeting, AGU, Dec. 2020.
- Dalton, C.A.**, Z. Ma[^], J.B. Russell, J.B. Gaherty, G. Hirth, and D.W. Forsyth, Shear attenuation beneath the central Pacific and implications for anelasticity and hydration in the oceanic

upper mantle, Abstract submitted to the 2020 meeting of the Seismological Society of America.

^Ma, Z., **C.A. Dalton**, J.B. Russell, J.B. Gaherty, G. Hirth, and D.W. Forsyth, Shear attenuation and anelastic mechanisms in the central Pacific upper mantle, Abstract EGU2020-5302 to be presented at the EGU General Assembly 2020, Vienna, Austria, April 2020.