

## List of publications in 2017 due to GEF equipment loans

### Journal Articles

1. Accardo, N., Gaherty, J., Shillington, D., Ebinger, C., Nyblade, A., Mbogoni, G., Chindandali, P., Ferdinand, R., Mulibo, G., Kamihanda, G., Keir, D., Scholz, C., Selway, K., O'Donnell, J., Tepp, G., Gallacher, R., Mtelela, K., Salima, J. and Mruma, A., **2017**, Surface wave imaging of the weakly extended Malawi Rift from ambient-noise and teleseismic Rayleigh waves from onshore and lake-bottom seismometers, *Geophysical Journal International*, 209(3), p1892-1905, doi: 10.1093/gji/ggx133, (GEF Loan 981)
2. Corbeau, J., Rolandone, F., Leroy, S., Guerrier, K., Keir, D., Stuart, G., Clouard, V., Gallacher, R., Ulysse, S., Boisson, D., Bien-aime Momplaisir, R., Saint Preux, F., Prepetit, C., Saurel, J.-M., Mercier de Lepinay, B. and Meyer, B., **2017**, Crustal structure of western Hispaniola (Haiti) from a teleseismic receiver function study, *Tectonophysics*, 709, p9-19, doi: 10.1016/j.tecto.2017.04.029, (GEF Loan 987)
3. Ebinger, C.J., Keir, D., Bastow, I.D., Whaler, K., Hammond, J.O.S., Ayele, A., Miller, M.S., Tiberi, C. and Hautot, S., **2017**, Crustal structure of active deformation zones in Africa: Implications for global crustal processes, *Tectonics*, doi: 10.1002/2017TC004526, (GEF Loan 907)
4. Funnell, M., Peirce, C. and Robinson, A., **2017**, Structural variability of the Tonga-Kermadec forearc characterized using robustly constrained geophysical data, *Geophysical Journal International*, 210(3), p1681-1702, doi: 10.1093/gji/ggx260, (GEF Loan )
5. Goitom, B., Werner, M.J., Goda, K., Kendall, J., Hammond, J.O.S., Ogubazghi, G., Oppenheimer, C., Helmstetter, A., Keir, D. and Illsley-Kemp, F., **2017**, Probabilistic Seismic-Hazard Assessment for Eritrea, *Bulletin of the Seismological Society of America*, 107(3), p1478-1494, doi: 10.1785/0120160210, (GEF Loans 885, 913, 953, 956)
6. Green, R.G., Priestley, K.F. and White, R.S., **2017**, Ambient noise tomography reveals upper crustal structure of Icelandic rifts, *Earth and Planetary Science Letters*, 466, p20-31, doi: 10.1016/j.epsl.2017.02.039, (GEF Loans 968, 1022)
7. Harding, J.L., Van Avendonk, H.J., Hayman, N.W., Grevemeyer, I., Peirce, C. and Dannowski, A., **2017**, Magmatic-tectonic conditions for hydrothermal venting on an ultraslow-spread oceanic core complex, *Geology*, 45(9), p839-842, doi: 10.1130/G39045.1, (GEF Loan )
8. Hart, J.K., **2017**, Subglacial till formation: Microscale processes within the subglacial shear zone, *Quaternary Science Reviews*, 170, p26-44, doi: 10.1016/j.quascirev.2017.06.021, (GEF Loans 935, 961, 983)
9. Hodgson, I., Illsley-Kemp, F., Gallacher, R.J., Keir, D., Ebinger, C.J. and Mtelela, K., **2017**, Crustal Structure at a Young Continental Rift: A Receiver Function Study From the Tanganyika Rift, *Tectonics*, 36(12), p2806-2822, doi: 10.1002/2017TC004477, (GEF Loan 981)
10. Houseman, G.A., **2017**, Why Earthquakes Threaten Two Major European Cities: Istanbul and Bucharest, *European Review*, p1-20, doi: 10.1017/S1062798717000448, (GEF Loan 947)
11. Hudson, T.S., White, R.S., Greenfield, T., Agustsdottir, T., Bourne, A. and Green, R.G., **2017**, Deep crustal melt plumbing of Bardarbunga volcano, Iceland, *Geophysical Research Letters*, 44(17), p8785-8794, doi: 10.1002/2017GL074749, (GEF Loans 968, 1022)
12. Illsley-Kemp, F., Savage, M.K., Keir, D., Hirschberg, H.P., Bull, J.M., Gernon, T.M., Hammond, J.O., Kendall, J., Ayele, A. and Goitom, B., **2017**, Extension and stress during continental breakup: Seismic anisotropy of the crust in Northern Afar, *Earth and Planetary Science Letters*, 477, p41-51, doi: 10.1016/j.epsl.2017.08.014, (GEF Loans 885, 913, 953)
13. Illsley-Kemp, F., Keir, D., Bull, J.M., Ayele, A., Hammond, J.O.S., Kendall, J., Gallacher, R.J., Gernon, T. and Goitom, B., **2017**, Local Earthquake Magnitude Scale and b-Value for the Danakil Region of Northern Afar, *Bulletin of the Seismological Society of America*, 107(2), p521-531, doi: 10.1785/0120150253, (GEF Loans 885, 913, 953)
14. Jenkins, J., Deuss, A. and Cottaar, S., **2017**, Converted phases from sharp 1000 km depth mid-mantle heterogeneity beneath Western Europe, *Earth and Planetary Science Letters*, 459, p196-207, doi: 10.1016/j.epsl.2016.11.031, (GEF Loans 857, 968, 1022)
15. Johnston, J.M., Wooster, M.J., Paugam, R., Wang, X., Lynham, T.J. and Johnston, L.M., **2017**, Direct estimation of Byram's fire intensity from infrared remote sensing imagery, *International Journal of Wildland Fire*, 26(8), p668, doi: 10.1071/WF16178, (GEF Loan 994)
16. King, O., Quincey, D.J., Carrivick, J.L. and Rowan, A.V., **2017**, Spatial variability in mass loss of glaciers in the Everest region, central Himalayas, between 2000 and 2015, *The Cryosphere*, 11(1), p407-426, doi: 10.5194/tc-11-407-2017, (GEF Loans 1050, 1058, 1065)

17. Kirkham, J.D., Rosser, N.J., Wainwright, J., Vann Jones, E.C., Dunning, S.A., Lane, V.S., Hawthorn, D.E., Strzelecki, M.C. and Szczuciński, W., **2017**, Drift-dependent changes in iceberg size-frequency distributions, *Scientific Reports*, 7(1), doi: 10.1038/s41598-017-14863-2, (GEF Loan 984)
18. Kuipers Munneke, P., McGrath, D., Medley, B., Luckman, A., Bevan, S., Kulesa, B., Jansen, D., Booth, A., Smeets, P., Hubbard, B., Ashmore, D., Van den Broeke, M., Sevestre, H., Steffen, K., Shepherd, A. and Gourmelen, N., **2017**, Observationally constrained surface mass balance of Larsen C ice shelf, Antarctica, *The Cryosphere*, 11(6), p2411-2426, doi: 10.5194/tc-11-2411-2017, (GEF Loans 863, 1028)
19. Kulesa, B., Hubbard, A.L., Booth, A.D., Bougamont, M., Dow, C.F., Doyle, S.H., Christoffersen, P., Lindbäck, K., Pettersson, R., Fitzpatrick, A.A.W. and Jones, G.A., **2017**, Seismic evidence for complex sedimentary control of Greenland Ice Sheet flow, *Science Advances*, 3(8), e1603071, doi: 10.1126/sciadv.1603071, (GEF Loan 875)
20. Liddell, M.V., Bastow, I., Darbyshire, F., Gilligan, A. and Pugh, S., **2017**, The formation of Laurentia: Evidence from shear wave splitting, *Earth and Planetary Science Letters*, 479, p170-178, doi: 10.1016/j.epsl.2017.09.030, (GEF Loan 900)
21. Martinez, K., Hart, J.K., Basford, P.J., Bragg, G.M., Ward, T. and Young, D.S., **2017**, A geophone wireless sensor network for investigating glacier stick-slip motion, *Computers & Geosciences*, 105, p103-112, doi: 10.1016/j.cageo.2017.05.005, (GEF Loans 935, 961)
22. McCarthy, M., Pritchard, H., Willis, I. and King, E., **2017**, Ground-penetrating radar measurements of debris thickness on Lirung Glacier, Nepal, *Journal of Glaciology*, p1-13, doi: 10.1017/jog.2017.18, (GEF Loan 1014)
23. Morris, E.M., Mulvaney, R., Arthern, R.J., Davies, D., Gurney, R.J., Lambert, P., De Rydt, J., Smith, A.M., Tuckwell, R.J. and Winstrup, M., **2017**, Snow Densification and Recent Accumulation Along the iSTAR Traverse, Pine Island Glacier, Antarctica, *Journal of Geophysical Research: Earth Surface*, doi: 10.1002/2017JF004357, (GEF Loan 998)
24. Papaleo, E., Cornwell, D.G. and Rawlinson, N., **2017**, Seismic tomography of the North Anatolian Fault: New insights into structural heterogeneity along a continental strike-slip fault, *Geophysical Research Letters*, 44(5), p2186-2193, doi: 10.1002/2017GL072726, (GEF Loan 947)
25. Parnell-Turner, R., Sohn, R., Peirce, C., Reston, T., MacLeod, C., Searle, R. and Simão, N., **2017**, Oceanic detachment faults generate compression in extension, *Geology*, 45(10), p923-926, doi: 10.1130/G39232.1, (GEF Loan )
26. Passarelli, L., Rivalta, E., Jonsson, S., Hensch, M., Metzger, S., Jakobsdottir, S.S., Maccaferri, F., Corbi, F. and Dahm, T., **2017**, Scaling and spatial complementarity of tectonic earthquake swarms, *Earth and Planetary Science Letters*, 482, p62-70, doi: 10.1016/j.epsl.2017.10.052, (GEF Loan 968)
27. Sammarco, C., Cornwell, D.G. and Rawlinson, N., **2017**, Ambient noise tomography reveals basalt and sub-basalt velocity structure beneath the Faroe Islands, North Atlantic, *Tectonophysics*, 721, p1-11, doi: 10.1016/j.tecto.2017.09.012, (GEF Loan 918)
28. Schiffer, C. and Stephenson, R., **2017**, Regional crustal architecture of Ellesmere Island, Arctic Canada, *Geological Society, London, Special Publications*, 460(1), p19-32, doi: 10.1144/SP460.8, (GEF Loan 890)
29. Scott Watson, C., Quincey, D.J., Carrivick, J.L. and Smith, M.W., **2017**, Ice cliff dynamics in the Everest region of the Central Himalaya, *Geomorphology*, 278, p238-251, doi: 10.1016/j.geomorph.2016.11.017, (GEF Loans 1050, 1058, 1065)
30. Simpson, J., Smith, T. and Wooster, M., **2017**, Assessment of Errors Caused by Forest Vegetation Structure in Airborne LiDAR-Derived DTMs, *Remote Sensing*, 9(11), p1101, doi: 10.3390/rs9111101, (GEF Loan 1079)
31. Smeaton, C. and Austin, W.E.N., **2017**, Sources, Sinks, and Subsidies: Terrestrial Carbon Storage in Mid-latitude Fjords, *Journal of Geophysical Research: Biogeosciences*, doi: 10.1002/2017JG003952, (GEF Loan 1031)
32. Smith, E.C., Baird, A.F., Kendall, J.M., Martin, C., White, R.S., Brisbourne, A.M. and Smith, A.M., **2017**, Ice fabric in an Antarctic ice stream interpreted from seismic anisotropy, *Geophysical Research Letters*, 44(8), p3710-3718, doi: 10.1002/2016GL072093, (GEF Loan 852)
33. Van Avendonk, H.J.A., Hayman, N.W., Harding, J.L., Grevemeyer, I., Peirce, C. and Dannowski, A., **2017**, Seismic structure and segmentation of the axial valley of the Mid-Cayman Spreading Center, *Geochemistry, Geophysics, Geosystems*, 18(6), p2149-2161, doi: 10.1002/2017GC006873, (GEF Loan )
34. Watson, C.S., Quincey, D.J., Carrivick, J.L., Smith, M.W., Rowan, A.V. and Richardson, R., **2017**, Heterogeneous water storage and thermal regime of supraglacial ponds on debris-covered glaciers, *Earth Surface Processes and Landforms*, doi: 10.1002/esp.4236, (GEF Loans 1050, 1058, 1065)

35. Watson, C.S., Quincey, D.J., Smith, M.W., Carrivick, J.L., Rowan, A.V. and James, M.R., **2017**, Quantifying ice cliff evolution with multi-temporal point clouds on the debris-covered Khumbu Glacier, Nepal, *Journal of Glaciology*, 63(241), p823-837, doi: 10.1017/jog.2017.47, (GEF Loans 1050, 1058, 1065)
36. Wilks, M., Kendall, J.-M., Nowacki, A., Biggs, J., Wookey, J., Birhanu, Y., Ayele, A. and Bedada, T., **2017**, Seismicity associated with magmatism, faulting and hydrothermal circulation at Aluto Volcano, Main Ethiopian Rift, *Journal of Volcanology and Geothermal Research*, 340, p52-67, doi: 10.1016/j.jvolgeores.2017.04.003, (GEF Loan 962)

### Conference Papers / Proceedings

1. Agustsdottir, T., White, R.S., Greenfield, T., Woods, J., Hudson, T. and Brandsdottir, B., **2017**, Seismicity accompanying the 2014 Bárðarbunga-Holuhraun intrusion and the co- and post-eruptive activity, *IAVCEI 2017, Portland, Oregon, August 2017*, (GEF Loans 968, 980, 1022)
2. Brandsdottir, B., Agustsdottir, T., Woods, J., Donaldson, C., White, R.S. and Einarsson, P., **2017**, How can earthquakes illuminate the tectonics of dike intrusions? Examples from the Krafla 1975-1984 and Bárðarbunga, 1996-2015 rifting events, *November 2017, Iceland Geological Society*, (GEF Loans 968, 980, 1022)
3. Greenfield, T., Keir, D., Tessema, T., Lloyd, R., Biggs, J., Ayele, A. and Kendall, J.-M., **2017**, Magma-Tectonic Interactions in the Main Ethiopian Rift; Insights into Rifting Processes, *American Geophysical Union, Fall Meeting 2017, New Orleans, EOS, Transactions, AGU, T44A-03*, (GEF Loan 1037)
4. Gregory, E.P.M., Hobbs, R.W., Peirce, C. and Wilson, D.J., **2017**, Porosity, fracturing and alteration of young oceanic crust: new seismic analyses at borehole 504B, *American Geophysical Union, Fall Meeting 2017, New Orleans, EOS, Transactions, AGU*, (GEF Loan )
5. Gregory, E.P.M., Hobbs, R.W., Peirce, C., Wilson, D.J. and Zhang, L., **2017**, 3D P- and S-wave velocity structure and anisotropy of 5.9 Ma oceanic crust at ODP borehole 504B, *EGU, Vienna, EGU General Assembly*, EGU2017-8513, (GEF Loan )
6. Harding, J.L., Van Avendonk, H.J.A., Hayman, N.W., Grevemeyer, I. and Peirce, C., **2017**, Detailed seismic velocity structure of the ultra-slow spread crust at the Mid-Cayman Spreading Center from travel-time tomography synthetic seismograms, *American Geophysical Union, Fall Meeting 2017, New Orleans, EOS, Transactions, AGU*, (GEF Loan )
7. Kamenos, N., Lea, J., Schoenrock, K., Pearce, D., Mair, D., Rea, B. and Schofield, J., **2017**, Marine algae inform past calving rates of a tide water glacier in western Greenland, *EGU, Vienna, EGU General Assembly*, (GEF Loan 1049)
8. Martins, J.E., Ruigrok, E., Weemstra, C., Verdel, A., Jousset, P., Hersir, G.P., Graganov, D., Hooper, A., Hansen, R., White, R.S. and Soosalu, H., **2017**, Surface-Wave Tomography by Ambient Noise Seismic Interferometry to image volcanic and geothermal systems in South Iceland, *IMAGE conference, Iceland*, (GEF Loans 968, 980)
9. Morino, C., Conway, S.J., Saemundsson, P., Balme, M.R., Helgason, J.K., Hillier, J., Jordan, C. and Argles, T., **2017**, Mobility of Landslides and Permafrost Degradation Revealed by Molards: two Case Studies in Northern Iceland, *9th International Conference on Geomorphology*, (GEF Loan 1064)
10. Morino, C., Conway, S.J., Saemundsson, P., Kristinn Helgason, J., Balme, M.R., Jordan, C. and Argles, T., **2017**, Molards: 'forgotten' periglacial landforms revealing landslide-processes and permafrost degradation, *EGU, Vienna, EGU General Assembly*, 19, p15401, (GEF Loan 1064)
11. O'Donnell, J.P., Dunham, C., Stuart, G.W., Brisbane, A., Nield, G.A., Whitehouse, P.L., Hooper, A.J., Nyblade, A., Wiens, D., Aster, R.C., Anandakrishnan, S., Huerta, A.D., Wilson, T.J. and Winberry, J.P., **2017**, Geothermal Heat Flux and Upper Mantle Viscosity across West Antarctica: Insights from the UKANET and POLENET Seismic Networks, *American Geophysical Union, Fall Meeting 2017, New Orleans, EOS, Transactions, AGU, T22D-02*, (GEF Loan 1002)
12. Pearce, D., Mair, D., Rea, B., Schofield, J. and Kamenos, N., **2017**, Rapid advance, and rapid retreat at Kangiata Nunaata Sermia: potential for long term numerical model validation of Greenland outlet glacier dynamics, *EGU, Vienna, EGU General Assembly*, (GEF Loan 1049)
13. Pearce, D., Mair, D., Rea, B., Schofield, J., Lea, J. and Kamenos, N., **2017**, A millennial-scale record of tidewater glacier advance and retreat, SW Greenland, *EGU, Vienna, EGU General Assembly*, (GEF Loan 1049)
14. Pearce, D., Mair, D., Rea, B., Schofield, J., Lea, J., Kamenos, N., Schoenrock, K. and Stachnik, L., **2017**, Reconstructing the behaviour of a major SW Greenland tidewater glacier over the last millennium, *EGU, Vienna, EGU General Assembly*, (GEF Loan 1049)

15. Robinson, A.H., Peirce, C. and Funnell, M.J., **2017**, Subduction of the Louisville Ridge Seamount Chain, *American Geophysical Union, Fall Meeting 2017, New Orleans, EOS, Transactions, AGU*, (GEF Loan )
16. Schopa, A., Chao, W.-A., Lipovsky, B., Hovius, N., White, R.S. and Green, R.G., **2017**, Precursory tremor of the Askja Caldera landslide, July 2014 – seismic signal analysis and numerical modelling, *American Geophysical Union, Fall Meeting 2017, New Orleans, EOS, Transactions, AGU*, NH43A-0171, (GEF Loan 968)
17. Smith, E.C., Baird, A.F., Kendall, J.-M., Martin, C., White, R.S., Brisbourne, A. and Smith, A.M., **2017**, Ice fabric in an Antarctic ice stream interpreted from seismic anisotropy, *EGU, Vienna, EGU General Assembly*, EGU2017-12530, (GEF Loan 852)
18. White, R.S., Agustsdottir, T., Brandsdottir, B., Donaldson, C., Green, R.G., Greenfield, T., Hudson, T., Jenkins, J., Soosalu, H., Winder, T. and Woods, J., **2017**, The Spreading Plate Boundary across Iceland: Rifting and Volcanism, *50 years of Plate Tectonics, October 2017, Geological Society of London*, (GEF Loans 968, 980)
19. White, R.S., Edmonds, M., Maclennan, J., Jenkins, J. and Cambridge Volcano Seismology Group, **2017**, Deep Crustal Magma Plumbing in Iceland from Seismicity, Geochemistry and Petrology, *IAVCEI 2017, Portland, Oregon, August 2017*, (GEF Loans 968, 980)
20. White, R.S., Edmonds, M., Maclennan, J. and the Cambridge Volcano Seismology Group, **2017**, Deep Crustal Magma Plumbing under Icelandic Rift Volcanoes, *Royal Society Discussion workshop, November 2017*, (GEF Loans 968, 980)
21. White, R.S., iSIMM Team and Cambridge Volcano Seismology Team, **2017**, Caught in the Act: Rifting and Melt Injection from the Faroes Margin to the Icelandic Rift Zones, *VMSG, Liverpool*, (GEF Loans 968, 980, 1022)
22. Wilson, D.J., Moorkamp, M., Hobbs, R.W., Peirce, C., Harris, R.N. and Morgan, J.V., **2017**, Determining the extent of hydrothermal interaction on the southern Costa Rica Rift ridge flank during the past 8 Ma from joint inversion of geophysical data, *American Geophysical Union, Fall Meeting 2017, New Orleans, EOS, Transactions, AGU*, (GEF Loan )
23. Zhang, L., Tong, V.C.H., Hobbs, R.W., Peirce, C., Lowell, R., Haughton, G., Murton, B.J., Morales Maqueda, M.A. and Robinson, A., **2017**, Axial crustal structure of the Costa Rica Rift: Implications for along-axis hydrothermal circulation, *American Geophysical Union, Fall Meeting 2017, New Orleans, EOS, Transactions, AGU*, (GEF Loan )

#### PhD Theses

1. Farrell, K., **2017**, Characterising the deep structure and seismic signature of an exhumed ductile shear zone , *University of Leeds*, (GEF Loan 947)
2. Funnell, M., **2017**, Evolution of the Tonga-Kermadec forearc in response to seamount subduction, *University of Durham*, (GEF Loan )
3. Gezahegn, B., **2017**, The Nabro volcano, tectonic framework and seismic hazard assessment of Eritrea, *University of Bristol*, (GEF Loans 885, 913, 953, 956)
4. Jenkins, J., **2017**, Mantle interfaces beneath Iceland, *University of Cambridge*, (GEF Loan 980)
5. Robinson, A., **2017**, Seamount Structure and Subduction at the Louisville Ridge - Tonga-Kermadec Collision, *University of Durham*, (GEF Loan )
6. Watson, C.S., **2017**, The evolution of supraglacial ponds and ice cliffs on Himalayan debris-covered glaciers , *University of Leeds*, (GEF Loans 1050, 1058, 1065)
7. Webster, E.J., **2017**, How will projected sea-level rise affect carbon storage in floodplain fens?, *Queen Mary University of London*, (GEF Loan 1024)
8. Wedmore, L., **2017**, Fault interaction processes and continental extension in the central Apennines, Italy, *University College London*, (GEF Loans 1034, 1051, 1066)