

List of publications in 2011 due to GEF equipment loans

Journal Articles

1. Acton, C.E., Priestley, K., Mitra, S. and Gaur, V.K. , **2011**, Crustal structure of the Darjeeling-Sikkim Himalaya and southern Tibet, *Geophysical Journal International*, 184(2), pp829-852, doi: 10.1111/j.1365-246X.2010.04868.x (Loan No:769)
2. Bartholomew, I., Nienow, P., Sole, A., Mair, D., Cowton, T., King, M. and Palmer, S., **2011**, Seasonal variations in Greenland Ice Sheet motion: inland extent and behaviour at higher elevations, *Earth and Planetary Science Letters*, 307, pp271-278, doi: 10.1016/j.epsl.2011.04.014 (Loan No:868)
3. Bastow, I., Thompson, D., Wookey, J., Kendall, J.M., Helffrich, G., Snyder, D., Eaton, D. and Darbyshire, F., **2011**, Precambrian plate tectonics: Seismic evidence from northern Hudson Bay, Canada, *Geology*, 39, pp91-94, doi: 10.1130/G31396.1 (Loan No:817)
4. Bastow, I.D., Keir, D. and Daly, E., **2011**, The Ethiopia Afar Geoscientific Lithospheric Experiment (EAGLE): Probing the transition from continental rifting to incipient seafloor spreading, in Beccaluva, L., Bianchini, G., and Wilson, M., eds., *Volcanism and Evolution of the African Lithosphere, Geological Society of America Special Paper*, 478, pp1-26, doi: doi:10.1130/2011.2478(04)
5. Bastow, I.D., Kendall, J.M., Brisbourne, A.M., Snyder, D.B., Thompson, D., Hawthorn, D., Helffrich, G.R., Wookey, J., Horleston, A. and Eaton, D., **2011**, The Hudson Bay Lithospheric Experiment, *Astronomy and Geophysics*, pp6.21-6.24, doi: doi:10.1111/j.1468-4004.2011.52621.x (Loan No:817;900)
6. Belachew, M., Ebinger, C., Cote, D., Keir, D., Rowland, J.V., Hammond, J.O.S. and Ayele, A., **2011**, Comparison of dike intrusions in an incipient seafloor-spreading segment in Afar, Ethiopia: Seismicity perspectives, *Journal of Geophysical Research*, 116(B06405), p23, doi: 10.1029/2010JB007908 (Loan No:841; 885)
7. Booth, A.D., Clark, R.A., Kulesa, B., Murray, T. and Hubbard, A., **2011**, Thin-layer effects in glaciological seismic amplitude-versus-angle (AVA) analysis: implications for characterising a subglacial till unit, Russell Glacier, West Greenland, *Cryosphere Discussions*, 6, pp759-792, doi: 10.5194/tcd-6-759-2012 (Loan No:875)
8. Chang, S.J. and Van der Lee, S., **2011**, Mantle plumes and associated flow beneath Arabia and East Africa, *Earth and Planetary Science Letters*, 302, pp448-454, doi: 10.1016/j.epsl.2010.12.050 (Loan No:841)
9. Cornwell, D.G., Hetenyi, G. and Blanchard, T.D., **2011**, Mantle transition zone variations beneath the Ethiopian Rift and Afar: Chemical heterogeneity within a hot mantle?, *Geophysical Research Letters*, 38, L16308, doi: 10.1029/2011GL047575
10. Dando, B.D.E., Stuart, G.W., Houseman, G.A., Hegedüs, E., Bruckl, E. and Radovanovic, S., **2011**, Teleseismic tomography of the mantle in the Carpathian-Pannonian region of central Europe, *Geophysical Journal International*, 186, pp11-31, doi: 10.1111/j.1365-246X.2011.04998.x (Loan No:883)
11. Gourmelen, N., Kim, S.W., Shepherd, A., Park, J.W., Sundal, A.V., Bjornsson, H. and Palsson, F., **2011**, Ice velocity determined using conventional and multiple-aperture InSAR, *Earth and Planetary Science Letters*, 307, pp156-160, doi: 10.1016/j.epsl.2011.04.026 (Loan No:906)
12. Grandin, R., Jacques, E., Nercessian, A., Ayele, A., Doubre, C., Socquet, A., Keir, D., Kassim, M., Lemarchand, A. and King, G.C.P., **2011**, Seismicity during lateral dike propagation: Insights from new data in the recent Manda Hararo-Dabbahu rifting episode (Afar, Ethiopia),

Geochemistry, Geophysics, Geosystems, 2(Q0AB08), p24, doi: 10.1029/2010GC003434 (Loan No:885)

13. Gudmundsson, G..H., **2011**, Ice-stream response to ocean tides and the form of the basal sliding law, *Cryosphere*, 5, pp259-270, doi: 10.5194/tc-5-259-2011 (Loan No:711)
14. Guidarelli, M., Stuart, G., Hammond, J.O.S., Kendall, J.M., Ayele, A. and Belachew, M., **2011**, Surface wave tomography across Afar, Ethiopia: Crustal structure at a rift triple-junction zone, *Geophysical Research Letters*, 38, doi: 10.1029/2011GL046840 (Loan No:841)
15. Hammond, J.O.S., Kendall, J.-M., Stuart, G.W., Keir, D., Ebinger, C., Ayele, A. and Belachew, M., **2011**, The nature of the crust beneath the Afar triple junction: evidence from receiver functions, *Geochemistry, Geophysics, Geosystems*, 12(Q12004), p24, doi: 10.1029/2011GC003738 (Loan No:841; 885)
16. Keir, D., Belachew, M., Ebinger, C., Kendall, J.-M., Hammond, J., Stuart, G., Ayele, A. and Rowland, J., **2011**, Mapping the evolving strain field during continental breakup from crustal anisotropy in the Afar depression, *Nature Communications*, 2(285), doi: 10.1038/ncomms1287 (Loan No:841; 885)
17. Keir, D., Pagli, C., Bastow, I.D. and Ayele, A., **2011**, The magma-assisted removal of Arabia in Afar: Evidence from dike injection in the Ethiopian rift captured using InSAR and seismicity, *Tectonics*, 30, TC2008, doi: 10.1029/2010TC002785
18. Key, J., White, R.S., Soosalu, H.E. and Jakobsdottir, S.S., **2011**, Multiple melt injection along a spreading segment at Askja, Iceland, *Geophysical Research Letters*, 38(L05301), doi: 10.1029/2010GL046264 (Loan No:857)
19. Key, J., White, R.S., Soosalu, H.E. and Jakobsdottir, S.S., **2011**, Correction to `Multiple melt injection along a spreading segment at Askja, Iceland`, *Geophysical Research Letters*, 38(L10308), doi: 10.1029/2011GL047491 (Loan No:857)
20. King, M.A., Makinson, K. and Gudmundsson, G.H., **2011**, Nonlinear interaction between ocean tides and the Larsen C Ice Shelf system, *Geophysical Research Letters*, 38, L08501, doi: 10.1029/2011GL046680 (Loan No:806)
21. King, M.A., Padman, L., Nicholls, K., Clarke, P., Gudmundsson, H., Kulesa, B., Shepherd, A. and Gourmelen, N., **2011**, Ocean tides in the Weddell Sea: new observations on the Filchner-Ronne and Larsen C ice shelves and model validation, *Journal of Geophysical Research*, 116(C06006), p18, doi: 10.1029/2011JC006949 (Loan No:864)
22. King, M.A., Padman, L., Nicholls, K., Clarke, P.J., Gudmundsson, G.H., Kulesa, B., Shepherd, A. and Gourmelen, N., **2011**, Correction to `Ocean tides in the Weddell Sea: New observations on the Filchner-Ronne and Larsen C ice shelves and model validation`, *Journal of Geophysical Research*, 116, C08026, doi: 10.1029/2011JC007463 (Loan No:753; 806; 865; 881)
23. McMillan, M., Shepherd, A., Nienow, P. and Leeson, A., **2011**, Tide model accuracy in the Amundsen Sea, Antarctica, from radar interferometry observations of ice shelf motion, *Journal of Geophysical Research Oceans*, 116, C11008, doi: 10.1029/2011JC007294 (Loan No:906)
24. Pawlak, A., Eaton, D., Bastow, I.D., Kendall, J.-M., Helffrich, G., Wookey, J. and Snyder, D., **2011**, Crustal structure beneath Hudson Bay from ambient-noise tomography: Implications for basin formation, *Geophysical Journal International*, 184(1), pp65-82, doi: 10.1111/j.1365-246X.2010.04828.x (Loan No:817; 900)
25. Ross, N., Siegert, M.J., Woodward, J., Smith, A.M., Corr, H.F.J., Bentley, M.J., Hindmarsh, R.C.A., King, E.C. and Rivera, A., **2011**, Holocene stability of the Amundsen-Weddell ice divide, West Antarctica, *Geology*, 39, pp935-938, doi: 10.1130/G31920.1 (Loan No:887)

26. Sole, A., Mair, D., Nienow, P., Bartholomew, I., Cowton, T., King, M., Burke, M. and Joughin, I., **2011**, Seasonal speed-up of a Greenland marine-terminating outlet glacier forced by surface melt-induced changes in subglacial hydrology, *Journal of Geophysical Research*, 116, F03014, doi: 10.1029/2010JF001948 (Loan No:868)
27. Soosalu, H., Key, J. and White, R.S., **2011**, Laatikollisesta varaseismometreja rift-alueen alakuoren synnyn jäljille (From a box of spares to tracking down lower crust generation at a rift, in Finnish), *Geologi*, 63(2), pp36-43 (Loan No:842)
28. Thoma, M., Grosfeld, K., Meyer, C., Smith, A.M., Woodward, J. and Ross, N., **2011**, The `tipping` temperature within Subglacial Lake Ellsworth and its implications for lake access, *Cryosphere*, 5, pp561-567, doi: 10.5194/tc-5-561-2011 (Loan No:887)
29. Thompson, D., Helffrich, G., Bastow, I., Kendall, J.M., Wookey, J., Eaton, D. and Snyder, D., **2011**, Implications of a simple mantle transition zone beneath cratonic North America, *Earth and Planetary Science Letters*, 312, pp28-36 (Loan No:817)
30. Wang, J., Schweitzer, J., Tilmann, F., White, R.S. and Soosalu, H., **2011**, Detect more events using multi-channel Wiener filter on seismic array data, *Bulletin of the Seismological Society of America*, 101, pp2887-2996, doi: 10.1785/0120110003
31. Watcham, E.P., Bentley, M.J., Hodgson, D.A., Roberts, S.J., Fretwell, P.T., Lloyd, J.M., Larter, R.D., Whitehouse, P.L., Leng, M.J., Monien, P. and Moreton, S.G., **2011**, A new relative sea level curve for the South Shetland Islands, Antarctica, *Quaternary Science Reviews*, 30, pp3152-3170 (Loan No:826; 849)
32. Watremez, L., Leroy, S., Rouzo, S., d'Acremont, E., Unternehr, P., Ebinger, C., Lucazeau, F. and Al-Lazki, A., **2011**, The crustal structure of the north-eastern Gulf of Aden continental margin: insights from wide-angle seismic data, *Geophysical Journal International*, 184, pp575-594, doi: 10.1111/j.1365-246X.2010.04881.x (Loan No:787)
33. White, R.S., Drew, J., Martens, H.K., Key, A.J., Soosalu, H. and Jakobsdottir, S.S., **2011**, Dynamics of dyke intrusion in the mid-crust of Iceland, *Earth and Planetary Science Letters*, 304, pp300-312, doi: 10.1016/j.epsl.2011.02.038 (Loan No:842)

Conference Papers/Proceedings

1. Bassett, D., Watts, A.B., Peirce, C., Grevemeyer, I., Paulatto, M., Stratford, W., Hunter, J. and Kalnins, L., **2011**, Crustal structure and seismicity associated with seamount subduction: preliminary results from the Louisville-Tonga trench collision zone, *EOS, Transactions, AGU, Fall Meet. Suppl.*, Abstract T21B-2339
2. Belachew, M., Ebinger, C.J., Cote, D.M., Ayele, A. and Hammond, J.O.S., **2011**, Timing and dynamics of dike intrusions in Afar, Ethiopia: seismicity patterns and source mechanisms, *EOS, Transactions, AGU, Fall Meet. Suppl.*, Abstract S31B-2228
3. Booth, A., Kulesa, B., Gusmeroli, A., Doyle, S., Dow, C., Jones, G., Murray, T., Clark, R. and Hubbard, A., **2011**, Seismic characterisation of subglacial media around a supraglacial meltwater lake, Russell Glacier, West Greenland, *European Geosciences Union General Assembly, Vienna, Austria*, EGU2011-4682 (Loan No:875)
4. Brandsdottir, B., Parsons, M., White, R.S., Gudmundsson, O., Drew, J. and Thorbjarnardottir, B.S., **2011**, The May 29th 2008 earthquake aftershock sequence within the South Iceland Seismic Zone: Automated microseismic event detection and location by continuous spatial mapping, *42nd Nordic Seismology Seminar, Reykjavik, Iceland*

5. Collings, R., Rietbrock, A., Nippres, S.E.J., Lange, D., Tilmann, F.J., Natawidjaja, D. and Suwargardi, B., **2011**, Seismic Anisotropy Beneath the Sumatra Subduction Zone, *EOS, Transactions, AGU, Fall Meet. Suppl.*, Abstract DI41A-2072
6. Desissa, M., Johnson, N.E., Whaler, K.A., Hautot, S., Fisseha, S., Dawes, G.J.K. and the rest of the Afar Rift Consortium, **2011**, Mantle magma chamber imaged magnetotellurically beneath an active magmatic segment in Afar, Ethiopia, *Geological Society of London William Smith Meeting, Remote sensing of volcanoes and volcanic processes: integrating observation and modelling* (Loan No:907)
7. Doyle, S.H., Jones, G.A., van As, D., Fitzpatrick, A., Dow, C.F., Kulesa, B. and Hubbard, A., **2011**, GPS observations of West Greenland Ice Sheet surface motion, *EOS, Transactions, AGU, Fall Meet. Suppl.*, Abstract C42B-07 (Loan No:876)
8. Ebbing, J., England, R.W., Korja, T. and Smirnov, M., **2011**, Lithospheric structure beneath the Central Scandes, *German Geophysical Society Annual Meeting* (Loan No:783)
9. Fyffe, C.L., Brock, B.W., Kirkbride, M.P. and Mair, D., **2011**, The hydrology of the debris-covered Miage glacier, *15th Alpine Glaciology Meeting, Munich, Germany, Bavarian Academy of Sciences and Humanities* (Loan No:917)
10. Fyffe, C.L., Brock, B.W., Kirkbride, M.P. and Mair, D., **2011**, The influence of a debris cover on glacier hydrology: the Miage glacier, western Italian Alps, *International Glaciological Society British Branch Meeting, Cambridge, UK* (Loan No:917)
11. Greenfield, T., White, R.S., Tarasewicz, J., Key, J., Martens, H. and Brandsdottir, B., **2011**, Microseismicity of the Krafla Volcanic System, Iceland, *Volcanic and Magmatic Study Group, Cambridge, UK*
12. Hammond, J.O.S., Kendall, J.M., Bastow, I.D., Stuart, G.W., Keir, D., Ayele, A., Ogubazghi, G., Ebinger, C.J. and Belachew, M., **2011**, Seismically imaging the Afar plume, *EOS, Transactions, AGU, Fall Meet. Suppl.*, Abstract DI13A-2155
13. Hicks, S.P., Rietbrock, A., Ryder, I.M.A., Collings, R., Nippres, S. and Haberland, C.A., **2011**, 3D Seismic Velocity Structure in the Rupture Area of the 2010 Maule Mw=8.8 Earthquake, *American Geophysical Union, Fall Meeting 2011*, Abstract S11A-2202 (Loan No:922)
14. Houseman, G., Stuart, G., Dando, B., Ren, Y., Bruckl, E., Hegedus, E., Radovanovic, S. and CBP Working, **2011**, Detachment of mantle downwelling beneath the Pannonian Basin caused lithospheric extension, *Geophysical Research Abstracts, EGU General Assembly, EGU2011-9446*
15. Jansen, D., Kulesa, B., Sammonds, P.R., Luckman, A., King, E.C. and Benn, D., **2011**, Basal crevasses in Larsen C Ice Shelf, *European Geosciences Union General Assembly, Vienna, Austria* (Loan No:905)
16. Key, J., Soosalu, H., White, R.S. and Jakobsdottir, S.S., **2011**, Lower-crustal seismicity reveals multiple melt injection along the Icelandic spreading rift, *ESC Salina Meeting* (Loan No:857)
17. Key, J., White, R.S., Soosalu, H. and Jakobsdottir, S.S., **2011**, Multiple positions of lower crustal melt supply along a magmatic segment, Askja, Iceland, *Volcanic and Magmatic Study Group, Cambridge, UK, Geological Society of London* (Loan No:857)
18. Nippres, S.E.J., Hicks, S., Rietbrock, A., Whipple, M., Collings, R. and Haberland, C., **2011**, Sub-slab mantle anisotropy beneath south-central Chile, *EOS, Transactions, AGU, Fall Meet. Suppl.*, Abstract DI41A-2068
19. Rempe, M., Mitchell, T.M., Renner, J., Nippres, S.E.J., Ben-Zion, Y., Rockwell, T., Smith, S. and Di Toro, G., **2011**, Investigating the damage pattern of fault zone rocks by in situ seismic

- field measurements and laboratory experiments, *Geophysical Research Abstracts, EGU General Assembly*, EGU2011-13168
20. Rietbrock, A. and Ryder, I., **2011**, Detection of highly correlated seismic waveforms following the 2010 Mw 8.8 Maule, Chile, earthquake, *American Geophysical Union, Fall Meeting 2011*, Abstract S11A-2191 (Loan No:922)
 21. Rychert, C.A., Hammond, J.O., Kendall, J.M., Harmon, N., Keir, D., Ebinger, C.J., Stuart, G.W. and Belachew, M., **2011**, Seismically Imaging the Destruction of Continental Lithosphere beneath Afar, *EOS, Transactions, AGU, Fall Meet. Suppl.*, Abstract T33D-2454
 22. Ryder, I., Rietbrock, A., Kelson, K.I. and Burgmann, R., **2011**, Large extensional shallow crustal aftershocks on previously unknown faults triggered by the 2010 Maule earthquake, Chile, *American Geophysical Union, Fall Meeting 2011*, Abstract S14A-02 (Loan No:922)
 23. Stratford, W., Peirce, C., Watts, A.B. and Paulatto, M., **2011**, Lateral variations in the structure of the overriding and down-going plates in response to subduction of the Louisville Ridge seamount chain at the Tonga-Kermadec Trench, *EOS, Transactions, AGU, Fall Meet. Suppl.*, Abstract T13H-03
 24. Tang, G. and Barton, P.J., **2011**, 3-D seismic tomography study in the Simeulue segment of the Sumatra subduction zone, *BGA New Advances in Geophysics Meeting, Feb 2011, Geological Society of London*
 25. Taylor, R.L., Rutter, E.H., Brodie, K., Faulkner, D.R., Nippres, S.E.J. and Rietbrock, A., **2011**, Ground-truthing in-situ seismic data against geological data: the Carboneras fault zone, S.E. Spain, *Geophysical Research Abstracts, EGU General Assembly*, EGU2011-5003
 26. Taylor, R.L., Rutter, E.H., Faulkner, D.R. and Nippres, S.E.J., **2011**, Velocity structure of the Carboneras fault zone, S.E. Spain, *Tectonics Studies Group AGM, Durham, UK*
 27. Thompson, S., Kulesa, B. and Luckman, A., **2011**, Geoelectrical methods for imaging subsurface hydrology, *International Glaciological Society British Branch Meeting, Cambridge, UK, International Glaciological Society* (Loan No:926)
 28. Whaler, K., Desissa, M., Dawes, G., Fisseha, S., Hautot, S., Johnson, N. and other members of the Afar Rift Consortium, **2011**, Using magnetotellurics to image magma beneath Afar, Ethiopia, *Royal Society Kavli Centre Meeting, Magma migration, storage and eruption at divergent plate boundaries in Iceland and Afar* (Loan No:907)
 29. Whaler, K.A., Hautot, S., Desissa, M., Johnson, N.E., Fisseha, S., Dawes, G.J.K. and the Afar Rift Consortium, **2011**, The Afar, Ethiopia: geophysical and remote sensing studies of late-stage continental break-up, *IUGG XXVth General Assembly, Earth on the Edge: Science for a Sustainable Planet, Melbourne, Australia* (Loan No:907)
 30. White, R.S., Drew, J., Martens, H.R., Key, J., Soosalu, H. and Jakobsdottir, S.S., **2011**, Dynamics of lower crustal intrusion at volcanic rifts, *Volcanic and Magmatic Study Group, Cambridge, UK, Geological Society of London* (Loan No:857)
 31. White, R.S., Martens, H.R., Key, J., Soosalu, H. and Jakobsdottir, S.S., **2011**, Dyke Propagation and Deformation under the Icelandic Rift Zone Tracked by Seismicity, *Geophysical Research Abstracts, EGU General Assembly*, 13, EGU2011-9272 (Loan No:842)

PhD Theses

1. Bennett, R., **2011**, Archaeological remote sensing : visualisation and analysis of grass-dominated environments using airborne laser scanning and digital spectral data , *University of Bournemouth*(Loan No:920)
2. Henshall, S.E., **2011**, The influence of exposed riverine sediment (ERS) physical habitat dynamics and river flow in determining the distributions of specialist ERS invertebrates, *University of Birmingham*(Loan No:834)
3. Key, J., **2011**, Tracking melt with lower crustal earthquakes at Askja, Iceland, *University of Cambridge*(Loan No:857)
4. MacBean, N.L., **2011**, Using earth observation and ground-based data to improve modelled CO₂ and CH₄ fluxes from peatlands, *University College London*(Loan No:904)
5. Rye, C.J., **2011**, Spatially distributed modelling of regional glacier mass balance, *University of Cambridge*(Loan No:893)