

Anthony Brian Watts

Academic qualifications:

- 2003 University of Oxford *D.Sc.*
1970 University of Durham *Ph.D. Marine Geophysics.*
1967 University College, London *B.Sc. (Special) Geology and Physics.*

Positions held:

- 2018-Present *Adjunct Senior Researcher*, Lamont-Doherty Earth Observatory of Columbia University, USA
2018-Present *Honorary Researcher*, Department of Earth Sciences, University of Oxford
1990-2018 *Professor of Marine Geology and Geophysics*: University of Oxford
1989-1990 *Arthur D. Storke Memorial Professor of Geological Sciences*: Columbia University, USA
1981-1988 *Professor of Geological Sciences*: Columbia University, USA
1976-1981 *Senior Research Associate in Gravity and Tectonics*: Lamont-Doherty Geological Observatory of Columbia University, USA
1972-1976 *Research Associate*: Lamont-Doherty Geological Observatory of Columbia University, USA
1970-1971 *National Research Council of Canada Post-Doctoral Fellow in Marine Geophysics*: Bedford Institute of Oceanography, Canada.

Honours and awards:

- 2018 Emeritus Fellowship, The Leverhulme Trust.
2015 Harold Jeffreys Lecturer of the Royal Astronomical Society.
2014 Fellow, The Royal Society.
2008 Arthur Holmes Medal of the European Geosciences Union.
2008 Honorary Membership, European Geosciences Union.
2006 Fellow, Geological Society of America.
2005 George P. Woollard Award of the Geological Society of America.
1999 Member, *Academia Europaea*.
1993 Murchison Medal of the Geological Society of London.
1992 William Smith Lecturer of the Geological Society of London.
1988 Bullerwell Lecturer of the British Geophysical Association.
1985 Fellow, American Geophysical Union.
1982 Rosenstiel Award of the Rosenstiel School of Marine and Atmospheric Science, University of Miami.
1981 A. I. Levorsen Award of the American Association of Petroleum Geologists.
1964-65 Chubb Prize in Geology, University College, London.

Visiting positions:

- 2011 *Visiting Professor*: Victoria University, Wellington, New Zealand

2010, 2015 *Visiting Professor*: University of Colorado, Boulder, USA
 2004-2005 *Green Scholar*: Scripps Institution of Oceanography, University of California, La Jolla, California, USA
 2004,2006, 2010 *Visiting Professor*: University Pierre et Marie Curie, Paris, France
 1998 *Distinguished Crosby Visiting Professor*: Massachusetts Institute of Technology, Boston, USA
 1987-1988 *Royal Society Guest Fellow*: University of Oxford
 1983 *Visiting Professor*: Institut Physique du Globe de Paris, Paris, France

Oceanographic cruises (22):

- *RV SONNE*, 2008, 2011. SW Pacific.
- *RRS Discovery*, 2003. Equatorial Atlantic.
- *RRS Charles Darwin*, 1991/92, 1993, 1997. E. Atlantic and Mediterranean Sea.
- *DV Glomar Challenger*, 1983. W. Atlantic.
- *RV Jean Charcot*, 1988. Mediterranean Sea
- *RV Robert D. Conrad*, 1974, 1982, 1984, 1988, W. Pacific, W. Atlantic, Mediterranean Sea.
- *RV Vema*, 1973 (2), 1975, 1977, 1979, NE Atlantic, E., C. and W. Pacific.
- *CSS Hudson*, 1971, W. Atlantic.
- *RV Moray Firth*, 1969, NE Atlantic.
- *RRS John Murray*, 1967 (2), 1968, NE Atlantic.

Current research:

- The Earth's gravity field and its relationship to isostasy.
- Lithospheric flexure and its role in the evolution of rifted margins, deep-sea trench and outer-rise systems, mid-oceanic ridges, fracture zones and oceanic islands and seamounts.
- Tectonic uplift and subsidence history, global sea-level change and the evolution of sedimentary basins.
- The long-term strength of the lithosphere and its relationship to the elastic, thermal and seismogenic layer thickness.

Advisor:

- **Post-doctoral fellows (14 completed):**

Steve Daly, Neil Ribe, Dork Sahagian, Montserrat Torné, Jenny Collier, Neil Mitchell, Tim Henstock, Gareth Armstrong, David Haddad, Marta Pérez-Gussinyé, Øyvind Engen, Lara Kalnins, Michele Paulatto, James Moore.

- **Ph.D students (36 completed, 2 in progress):**

John Bodine, Mike Steckler, Garry Karner, Julian Thorne, Uri ten Brink, Robin Bell, Pål Wessel, Walter Smith, Bernie Coakley, Andrew Goodwillie, Peter Burgess, Roxby Hartley, Catherine Marr, Rupert Dalwood, Nathan Hayward, Audrey Willet, Jonathan Stewart, David Haddad, Martin Gee, Suman Chowdhury, Emily Black, Andrew Lin, Mohammed Ali, Paul Wyer, David Close, John Hillier, Natalie Lane, Tom Jordan, Tiago Cunha, Matt

Rodger, Lara Kalnins, Daniel Bassett, Johnny Hunter, Lily Muller, Brook Tozer, Dirk Metz, Rebecca Morgan, Brook Keats.

- **MESc. students (23 completed)**

Teaching (highlights):

Undergraduate:

- **First Year:** Plate tectonics. Gravity and isostasy. The geological history of the British Isles. *Field trips to Assynt, Arran and Pembroke.*
- **Second Year:** Geophysical Methods in Geology (gravity, magnetic, seismic reflection and refraction). *Field trip to the Mendip Hills.* Geological maps. Thermal and mechanical properties of the lithosphere. Geology of the Ocean Floor. *Field trips to Dorset, Assynt.*
- **Third Year:** Sedimentary basin formation. *Field trip to Greece.*
- **Fourth Year:** Anatomy of a mountain belt (comparative studies of the Andes, Alps, and Himalaya).

Graduate:

Gravity and Geodesy. Geophysical Theory. Seminar in Marine Geology and Geophysics. Sedimentary Basin Formation.

Public outreach:

- Geological Society of London Shell Public Lecture Series: Invited talks on “Mountains in the Sea” and “Sedimentary Basins”.
- The Crown Colony Club of Virginia (Williamsburg) talks and The Explorers Club of New York (scheduled for 3/9/2018) on “Mountains in the Sea”.
- Invited talks at the Hampstead Scientific Society, the Bath Geological Society, Richmond Scientific Society, the Institute of Physics (London), the Huntingdon and Hillingdon Scientific Society, the Ashmolean Natural History Society of Oxfordshire and the West of England Geology Group of the Geologist Association.
- Interviews on tectonics and seismicity of the SW Pacific region for Radio Australia and Radio New Zealand. Radio 4 and BBC 6 pm and 10 pm TV news interviews on the structure and evolution of the Tonga-Kermadec trench, Louisville Ridge seamount chain and Indo-Australian/Pacific plate boundary.

Editorial board:

2005-2011: Elsevier “Treatise in Geophysics” – Volume 6: Crust and Lithosphere Dynamics (Editor). 2000-present: Kluwer “Coastal Systems and Continental Margins”. 2010-present: Proceedings of the Geologist Association. 1987-1995: Basin Research. 1984-1988: Tectonophysics. 1984-1995: Marine Geophysical Researches. 1983-1995: Marine and Petroleum Geology. 1983-1986: Geology. 1976-1982: Journal of Geophysical Research.

External activities (highlights):

- Council of the AGU and President, Tectonophysics Section (2015-2016)

- AGU Paul G. Silver Award Committee (Chair)
- AGU Search Committee for Editor-in-Chief of Tectonics (member) and JGR-Solid Earth (Chair)
- Member, NSF GeoPRISMS Oversight and Steering Committee (2013-2016)
- Member, AGU Scientific Trends Task Force
- Member, The Royal Society Newton Advanced Fellowship Awards Committee
- Member, The Royal Society Section 5 Fellowship Nominations Committee (2016-
- UK IODP Assessment Panel (2015)
- Council of the AGU and President-elect, Tectonophysics Section (2012-2014)
- American Geophysical Union (AGU), Tectonophysics Section Fellows Nomination Committee (Chair) (2012-2014)
- Review Panel of the 2012 German Excellence Initiative
- 2010 Decadal Review of the NSF US MARGINS program (Chair)
- Council and Chair of the Science Committee of the Geological Society of London (2004-2008)
- 2007 Scientific Advisory Board of the Leibniz Institute for Marine Sciences (IFM-GEOMAR)
- External examiner: Universities of Southampton, Durham and Leicester.
- National Science Foundation (NSF) Panel in Marine Geology and Geophysics.
- European Science Foundation (ESF) EUROMARGINS Science Steering Committee
- UK representative on “InterMARGINS” steering committee
- Programme Management Board for the NERC/LINK Programme "Ocean Margins".
- European Community Deep Earth Geology Program (JOULE), Project IAM (Iberia Atlantic Margins) Science Steering Committee
- National Environment Research Council (NERC) Geological Sciences Committee.
- NERC Science Management Audit of Research Vessels Services (RVS)
- NERC Sea-time assessment panel.
- British Mid-Oceanic Ridge (BRIDGE) steering committee (co-opted member).
- Science Advisory Committee of Project Hедера (University of Aberdeen).
- British Institutions Reflection Profiling Syndicate (BIRPS) Programme Board (Chair).
- NERC Review committee of the BIRPS program.
- JOIDES Sea-level Working Group (1990-91)
- Science Steering Committee for a Deep Drill-Hole on Hawaii.
- Conference on Scientific Ocean Drilling (COSOD) – Working Group on Tectonic evolution of continental margins and oceanic crust (Chair) (1981).
- Geopotential Research Mission (GRM) Science Steering Group (1983-84)
- NASA working group on a Dedicated Satellite Gravity Mission (GRAVSAT) – Solid-Earth Applications (Chair) (1978-1980)
- Tectonics Panel of the Deep-Sea Drilling Project (DSDP)
- US National Academy Sciences Committee on Earth Sciences (1979-1981)
- US National Academy Sciences. Committee on Geodesy. Panel on Gravity and Sea- level (1978-1980)

Internal activities (highlights):

- Chair of the Sub-Faculty of the Department of Earth Sciences of Oxford University.
- Chair of the Department of Geological Sciences of Columbia University.
- Associate Director of the Lamont-Doherty Geological Observatory (1983-1986).
- Executive Committee of the Lamont-Doherty Geological Observatory (1983-1986).

Funding sources:

US Office of Naval Research, National Science Foundation (OCE), US Department of Defence (DOD), NASA, Joint Oceanographic Institutions (JOI), NERC (Geological Sciences Committee), NERC (ROPA), NERC/LINK Programme in Ocean Margins, International Ocean Drilling Program, British Council (Madrid, Beijing), The Royal Society, European Science Foundation, European Union (Marie-Curie Fellowship Programme), The Petroleum Institute (Abu Dhabi), Hydrocarbons industry (Exxon, Mobil, Marathon, Phillips, BP-Amoco, BPX, BP-Brazil, Penzoil, Shell, Chevron), The Leverhulme Trust.

Publications (219 journal articles, 1 book):

1. 1970 Bott, M.H.P. and A.B. Watts, Deep sedimentary basins proved in the Hebridean-Shetland continental shelf and margin, *Nature*, London, 225, 265-268.
2. 1970 Bott, M.H.P. and A.B. Watts, Deep structure of the continental margin adjacent to the British Isles, SCOR Symposium, Cambridge, Report No. 70/14, 91-109.
3. 1970 Bott, M.H.P. and A.B. Watts, The Great Glen Fault in the Shetland area, *Nature*, London, 227, 268.
4. 1971 Watts, A.B., Geophysical investigations on the continental shelf and slope north of Scotland, *Scottish. J. of Geology*, 7, 189-218.
5. 1972 Bott, M.H.P., J.G. Holland, P.J. Storry and A. B. Watts, Geophysical evidence concerning the structure of the Lewisian of Sutherland, N.W. Scotland, *Journal of the Geol. Soc. Lond.*, 128, 599-612.
6. 1972 Haworth, R.T., A.B. Watts and A.K. Goodacre, Gravity measurements in the Gulf of St. Lawrence, *Geol. Surv. Can.*, Paper 71-23, 337-338.
7. 1972 Watts, A.B., Geophysical investigations east of the Magdalen Islands, southern Gulf of St. Lawrence, *Can. J. Earth Science*, 9, 1504-1528.
8. 1974 Watts, A.B. and R.T. Haworth, Geological interpretation of Bouguer anomaly and magnetic anomaly maps east of the Magdalen Islands, Southern Gulf of St. Lawrence, *Marine Sciences Paper No. 10*, 1-9.
9. 1974 Watts, A.B. and M. Talwani, Gravity anomalies seaward of deep-sea trenches and their tectonic implications, *Geophys. J. Roy. Astro. Soc.*, 36, 57-92.
10. 1974 Watts, A.B., A gravity survey of the continental shelf south of Cape Sable, Nova Scotia, *Can. J. Earth Science*, 11, 1329-1334.
11. 1974 Watts, A.B., and J.R. Cochran, Gravity anomalies and flexure of the lithosphere along the Hawaiian-Emperor seamount chain, *Geophys. J. Roy. Astro. Soc.*, 38, 119-141.

12. 1974 Watts, A.B., and J.R. Cochran, Gravity anomalies in the Galapagos Islands Area, *Science*, 84, 808-809.
13. 1975 Watts, A.B., and M. Talwani, Gravity effect of downgoing lithospheric slabs beneath island arcs, *Geol. Soc. Amer. Bull.*, 86, 1-4.
14. 1975 Watts, A.B., J.R. Cochran, G. Selzer, Gravity anomalies and flexure of the lithosphere: A three-dimensional study of the Great Meteor Seamount, N.E. Atlantic, *Jour. Geophys. Res.*, 80, 1391-1398.
15. 1975 Watts, A.B. and J.K. Weissel, Tectonic history of the Shikoku Marginal Basin, *Earth and Planet. Sci. Lett.*, 25, 239-250.
16. 1975 Watts, A.B., and J.K. Weissel, Rifting and seafloor spreading in marginal basins: Shikoku Basin, *Bull. Aust. Soc. Explor. Geophys.*, 6, 2/3, 46-47.
17. 1975 Watts, A.B., Marine Gravity, Report to the IUGG on U.S. progress in marine gravity, *Reviews of Geophysics and Space Physics*, 13/3, 532-546.
18. 1975 Weissel, J.K. and A.B. Watts, Tectonic complexities in the South Fiji marginal basin, *Earth and Planet. Sci. Lett.*, 28, 121-126.
19. 1975 Watts, A.B. and M. Talwani, Gravity field of the Northwest Pacific Ocean basin and its margin: I. Hawaii and Vicinity, *Geol. Soc. Amer., Spec. Map and Chart Series MC-9*.
20. 1975 Watts, A.B., B.C. Schreiber and D. Habib, Dredged rocks from Hatton Bank, Rockall Plateau, *Jl. Geol. Soc. Lond.*, 131, 639-646.
21. 1975 Watts, A.B., Gravity field of the Northwest Pacific Ocean basin and its margin: Aleutian Island Arc-Trench System, *Geol. Soc. Amer., Spec. Map and Chart Series MC-10*.
22. 1976 Watts, A.B., Gravity and bathymetry in the Central Pacific Ocean, *Jour. Geophys. Res.*, 81, 1533-1553.
23. 1976 Watts, A.B., M. Talwani, and J.R. Cochran, Gravity field of the Northwest Pacific Ocean basin and its margin, *in: Geophysics of the Pacific Ocean basin and its margin, AGU Monograph 19*, 17-34.
24. 1976 Watts, A.B., Gravity field of the Northwest Pacific Ocean basin and its margin: Philippine Sea, *Geol. Soc. Amer. Spec. Map and Chart Series, MC-12*.
25. 1976 Watts, A.B. and W.B.F. Ryan, Flexure of the lithosphere and continental margin basins, *Tectonophysics*, 36, 25-44.
26. 1977 Watts, A.B., J.K. Weissel and R. L. Larson, Sea-floor spreading in marginal basins of the western Pacific, *Tectonophysics*, 37, 167-181.
27. 1977 Watts, A.B., J.K. Weissel and F.J. Davey, Tectonic evolution of the South Fiji marginal basin, *in: Island Arcs, Deep Sea Trenches and Back-Arc Basins, Maurice Ewing Series, V. 1, American Geophys. Union*, 419-427.
28. 1977 Watts, A.B., and A.R. Leeds, Gravimetric Geoid in the Northwest Pacific Ocean, *Geophys. J. R. astr. Soc.*, 50, 249-277.
29. 1978 Watts, A.B., Comment on "On global gravity anomalies and two-scale mantle convection" by Bruce D. Marsh and James G. Marsh, *Jour. Geophys. Res.*, 83, 3551-3554.
30. 1978 Steckler, M.S. and A.B. Watts, Subsidence of the Atlantic-type continental margin off New York, *Earth and Planet. Sci. Lett.*, 41, 1-13.

31. 1978 Watts, A.B., An analysis of isostasy in the world's oceans: 1. Hawaiian-Emperor Seamount Chain, *Jour. Geophys. Res.*, 83, 5989-6004.
32. 1978 Watts, A.B., J.H. Bodine and C.O. Bowin, A Geophysical Atlas East and Southeast Asian Seas: Free-air gravity field, *Geol. Society America Map and Chart Series MC-25*.
33. 1979 Watts, A.B., M.G. Kogan, J.H. Bodine, Gravity field of the Northwest Pacific Ocean Basin and its margin: Kuril Island arc-trench system, *Geol. Society of America Map and Chart Series, MC-27*.
34. 1979 Watts, A.B., Present status of Marine Gravity, Proc. of the 9th GEOP. Conf., An International Symp. on the application of geodesy to geodynamics, Oct. 205, 1978, Dept. of Geodetic Science Rept. No. 280, Ohio State Univ., 251-255.
35. 1979 Bodine, J.H. and A.B. Watts, On lithospheric flexure seaward of the Bonin and Mariana Trenches, *Earth Planet. Science Lett.*, 43, 132-148.
36. 1979 Detrick, R.S. and A.B. Watts, An analysis of isostasy in the world's oceans, 3. Aseismic Ridges, *J. Geophys. Res.*, 84, 3637-3653.
37. 1979 Watts, A.B., On geoid heights derived from Geos 3 altimeter data along the Hawaiian-Emperor Seamount Chain, *J. Geophys. Res.*, 84, 3817-3826.
38. 1979 Weissel, J.K. and A.B. Watts, Tectonic evolution of the Coral Sea Basin, *J. Geophys. Res.*, 84, 4572-4582.
39. 1979 Watts, A.B. and M.S. Steckler, Subsidence and Eustasy at the continental margin of eastern North America, in: Deep Drilling Results in the Atlantic Ocean: Continental Margins and Paleoenvironment, *Maurice Ewing Series*, Volume 3, American Geophysical Union, p. 218-234.
40. 1980 Watts, A.B., J.H. Bodine and N.M. Ribe, Observations of flexure and the geological evolution of the Pacific Ocean basin, *Nature*, London, 283, 532-537.
41. 1980 Watts, A.B., J.H. Bodine and M.S. Steckler, Observations of flexure and the state of stress in the oceanic lithosphere, *J. Geophys. Res.*, 85, 6369-6376.
42. 1980 Steckler, M.S. and A.B. Watts, The Gulf of Lion: Subsidence of a young continental margin, *Nature*, London, 287, 425-429.
43. 1980 Watts, A.B., Plate tectonics: where is it going? *New Scientist*, 6 Nov. 1980, 360-363.
44. 1980 McKenzie, D.P., A.B. Watts, B. Parsons, and M. Roufosse, The planform of mantle convection beneath the Pacific Ocean, *Nature*, 288, 442-446.
45. 1981 Watts, A.B. and S.F. Daly, Long wavelength gravity and topography anomalies, *Annual Reviews in Earth and Planetary Sciences*, 9, 415-448.
46. 1981 Bodine, J.H., M.S. Steckler and A.B. Watts, Observations of flexure and the rheology of the oceanic lithosphere, *J. Geophys. Res.*, 86, 3695-3707.
47. 1981 Watts, A.B. and M.S. Steckler, Subsidence and tectonics of Atlantic type continental margins, *Oceanologica Acta*, Colloque C3, Geology of Continental Margins, 4, 143-154.
48. 1981 Steckler, M.S. and A.B. Watts, Subsidence history and tectonic evolution of Atlantic-type continental margins, in: R.A. Scrutton (ed.) Dynamics of

- Passive Margins, *Geodynamics Series*, Volume 6, A.G.U., Washington, D.C., 184-196.
49. 1981 Watts, A.B., Gravity field of the southwest Pacific Ocean, *Geol. Soc. America*, Map and Chart Series MC-42.
 50. 1981 Watts, A.B., The U.S. Atlantic continental margin: Subsidence history, crustal structure and thermal evolution, *American Assoc. Petrol. Geol. Education Course #19*, 75 pp.
 51. 1982 Watts, A.B., Gravity anomalies over oceanic rifts, *Geodynamics Series, Vol. 8*, American Geophysical Union, Washington, D.C., 99-106.
 52. 1982 Karner, G.D. and A.B. Watts, On isostasy at Atlantic-type continental margins, *J. Geophys. Res.* 87, 2923-2948.
 53. 1982 Watts, A.B., Seamounts and flexure of the lithosphere, *Nature*, 297, 182-183.
 54. 1982 Watts, A.B., G.D. Karner and M.S. Steckler, Lithospheric flexure and the evolution of sedimentary basins, *in*: The Evolution of Sedimentary Basins, (ed.) Sr. P. Kent, M.H.P. Bott, D.P. McKenzie and C.A. Williams, *Phil. Trans, Roy. Soc. Lond.*, 305A, 249-281.
 55. 1982 Watts, A.B., Tectonic subsidence, flexure and global changes of sea-level, *Nature*, 297, 469-474.
 56. 1982 Weissel, J.K., A.B. Watts, and A. Lapouille, Magnetic anomaly evidence for Late Paleocene to Late Eocene seafloor in the southern New Hebrides Basin, *Tectonophysics*, 87, 243-251.
 57. 1982 Ribe, N.M. and A.B. Watts, The distribution of intraplate volcanism in the Pacific Ocean: A spectral approach, *Geophys. J. Roy Astr. Soc.* 71, 333-362.
 58. 1983 Watts, A.B., The strength of the Earth's crust, *J. Marine Techn.* 17, 12 p.
 59. 1983 Karner, G.D. and A.B. Watts, Gravity anomalies and flexure of the lithosphere at mountain ranges, *J. Geophys. Res.* 88, 10,449-10,477.
 60. 1983 Davey, F.J. and A.B. Watts, Gravity field of the Southwest Pacific Ocean Basin: New Zealand, Geological Society of America Special Map and Chart Series.
 61. 1984 Watts, A.B. and N.M. Ribe, On geoid heights and flexure of the lithosphere at seamounts, *J. Geophys. Res.*, 89, No. B13, 11,152-11,170.
 62. 1984 Watts, A.B., K. Horai, N.M. Ribe, On determination of the deflection of the vertical by satellite altimetry, *Marine Geodesy*, 8, No. 1-4, 85-127.
 63. 1984 Watts, A.B. and J.A. Thorne, Tectonics, global changes in sea-level and their relationship to stratigraphic sequences at the U.S. Atlantic continental margin, *Marine and Petroleum Geology*, 1, No. 4, 319-339.
 64. 1984 Thorne, J.A. and A.B. Watts, Seismic reflectors and unconformities at passive continental margins, *Nature*, 311, No. 5984, 365-368.
 65. 1985 Watts, A.B., Gravity, geoid and the oceanic lithosphere, *in*: Internal Geophysics and Space, Cepadues-Editions, Toulouse, 237-339.
 66. 1985 Watts, A.B., J.R. Cochran, P. Patriat, M. Doucoure, A bathymetry and altimetry profile of the Southwest Indian ridge at 31°S, *Earth Planet. Sci. Lett.*, 73, 129-139.

67. 1985 Watts, A.B., D.P. McKenzie, B. Parsons, M. Rofosse, The relationship between gravity and bathymetry in the Pacific Ocean, *Geophys. J. Roy. Astr. Soc.*, 83, 1, 263-298.
68. 1985 Watts, A.B., U. ten Brink, P. Buhl, T. Brocher, A multi-channel seismic study of lithospheric flexure across the Hawaiian-Emperor seamount chain, *Nature*, 315, 6015, 105-111.
69. 1985 ten Brink, U.S., and A.B. Watts, Seismic stratigraphy of the flexural moat flanking the Hawaiian Islands, *Nature*, 317, No. 6036, 421-424.
70. 1985 Watts, A.B., G.D. Karner, P. Wessel and J. Hastings, Global Gravity Data Bank System, L-DGO Technical Report No. 4 CU-1-85, 108 pp.
71. 1986 Bally, A.W., I-Ming Chou, R. Clayton, H.P. Eugster, S. Kidwell, L.D. Meckel, R.T. Ryder, A.B. Watts, and A.A. Wilson, Notes on Sedimentary Basins in China, U.S.G.S. Open File Report 86-327, 108 pp.
72. 1986 Bell, R. E. and A.B. Watts, Evaluation of the BGM-3 sea gravity meter system on board R.V. CONRAD, *Geophysics*, 51, 1480-1493.73.7737
73. 1987 Bell, R. E. and A. B. Watts. Evaluation of the BGM-3 Sea Gravity Meter System Onboard R/V Conrad - Reply, *Geophysics*, 52, 697-697
74. 1987 Poag, C.W. and A.B. Watts. Background and objectives of the New Jersey transect: Continental slope and upper rise, *Initial Reports of the Deep Sea Drilling Project*, 95, 15-27.
75. 1987 Poag, C. W.; Watts, A. B.; Cousin, M.; Goldberg, D.; Hart, D.; Miller, K. D.; Mountain, G. S.; Nakamura, Y.; Palmer, A.; Schiffelbein, P. A.; Tarafa, M.; Thein, J. E.; Valentine, P. C. and R. H. Wilkins, Site-612, *Initial Reports of the Deep Sea Drilling Project*, 95, 31-153.
76. 1987 Poag, C. W.; Watts, A. B.; Cousin, M.; Goldberg, D.; Hart, D.; Miller, K. D.; Mountain, G. S.; Nakamura, Y.; Palmer, A.; Schiffelbein, P. A.; Tarafa, M.; Thein, J. E.; Valentine, P. C. and R. H. Wilkins, Site-613, *Initial Reports of the Deep Sea Drilling Project*, 95, 155-241.
77. 1988 Steckler, M.S., A.B. Watts and J.A. Thorne, Subsidence and basin modeling at the U.S. Atlantic passive margin, in: Grow, J.A. and Sheridan, R.E. (eds.), *The Atlantic Continental Margin*, U.S. Geological Society of America, *The Geology of North America*, v. I-2, 399-416.
78. 1988 Wessel P. and A.B. Watts, On the accuracy of marine gravity measurements, *Jour. Geophys. Res.*, 93, 393-413.
79. 1988 Watts, A.B., R.A. Duncan and R.L. Larson, The origin of the Louisville Ridge and its relationship to the Eltanin Fracture Zone system, *Jour. Geophys. Res.*, 93, 3051-3077.
80. 1988 Watts, A.B., Gravity anomalies, crustal structure and flexure of the lithosphere at the Baltimore Canyon Trough, *Earth and Planet. Sci. Lettrs.*, 89, 221-238.
81. 1989 Thorne, J.A. and A.B. Watts, A quantitative analysis of North Sea subsidence, *Am. Ass. Pet. Geol.*, 73, 88-116.
82. 1989 Watts, A.B. and U. S. ten Brink, Crustal structure, flexure and subsidence history of the Hawaiian Islands, *Jour. Geophys. Res.*, 94, 10,473-10,500.

83. 1989 Watts, A.B. and K.G. Cox, The Deccan Traps: An interpretation in terms of progressive lithospheric flexure in response to a migrating load, *Earth and Planet Sci. Lettrs.*, 93, 85-97.
84. 1989 Smith, W.H.F., H. Staudigel, A.B. Watts, and M.S. Pringle, The Magellan Seamounts: Early Cretaceous record of the South Pacific isotopic and thermal anomaly, *Jour. Geophys. Res.*, 94, 10,501-10,523.
85. 1989 Watts, A.B., Lithospheric Flexure due to Prograding Sediment Loads: Implications for the origin of Offlap/Onlap patterns in Sedimentary Basins, *Basin Res.*, 2, 133-144.
86. 1990 Watts, A.B., Torné, M., Buhl, P., Mauffret, A., Pascal, G. and Pinet, B., Evidence for reflectors in the lower continental crust before rifting in the Valencia Trough, *Nature*, 348, 631-635.
87. 1991 Coakley, B.J. and A.B. Watts, Tectonic controls on the development of Unconformities: The North Slope, Alaska, *Tectonics*, 10, 101-130
88. 1991 Sahagian, D. and A.B. Watts, Introduction to Special Section on "Measurement, causes and consequences of long-term sea-level changes", *J. Geophys. Res.*, 96, 6585-6589.
89. 1991 Sinclair, H., Coakley, B., Allen, P.A. and A.B. Watts, Simulation of foreland basin stratigraphy using a diffusion model of mountain belt uplift and erosion: An example from the Central Alps, Switzerland. *Tectonics.*, 10, 101-130.
90. 1992 Torné, M., Pascal, G., Buhl, P., Watts, A.B. and Mauffret, A., Crustal and velocity structure of the Valencia trough (Western Mediterranean). Part I: A combined refraction/wide-angle reflection and near-vertical reflection study. In: E. Banda and P. Santanach (eds.) *Tectonophysics*. 203, 1-20.
91. 1992 Torné, M., Pascal, G., Buhl, P., Watts, A.B. and Mauffret, A., Crustal and velocity structure of the Valencia trough (Western Mediterranean). Part II: Detailed interpretation of five Expanded Spread Profiles. In: E. Banda and P. Santanach (eds.) *Tectonophysics*. 203, 1-20.
92. 1992 Maillard, A., Mauffret, A., Watts, A.B., Torné, M., Pascal, G., Buhl, P. and Pinet, B. Tertiary sedimentary history and structure of the Valencia Trough (Western Mediterranean). In: E. Banda and P. Santanach (eds.) *Tectonophysics*. 203, 57-75.
93. 1992 Watts, A.B., The Formation of Sedimentary Basins. In "Understanding the Earth", Chapter 15, *Cambridge University Press*.
94. 1992 Watts, A. B. and M. Torné, Crustal structure and the mechanical properties of extended continental lithosphere in the Valencia trough (western Mediterranean). *J. Geol. Soc. Lond.*, 149, 813-827.
95. 1992 Watts, A.B. and M. Torné, Crustal structure, Subsidence History and Thermal Evolution of the Valencia Trough : A young extensional basin in the Western Mediterranean, *J. Geophys. Res.*, 97, 20,021 - 20,041.
96. 1992 Watts, A. B. The elastic thickness of the lithosphere and the evolution of foreland basins. *Basin Research* , 4, 169-178.

97. 1993 Goodwillie, A.M. and A. B. Watts. An altimetric and bathymetric study of elastic thickness in the Central Pacific Ocean. *Earth Planet. Sci. Lett.*, 118, 311-326.
98. 1993 Watts, A. B., J. Platt and P. Buhl. Tectonic evolution of the Alboran Sea basin. *Basin Research*, 5, 153-177, doi:10.1111/j.1365-2117.1993.tb00063.x
99. 1994 Watts, A.B. Crustal Structure, Gravity anomalies and flexure of the Lithosphere in the vicinity of the Canary Islands. *Geophys. J. Intern.*, 119, 648-666.
100. 1994 Collier, J. P. Buhl, M. Torné and A, B. Watts. Crustal structure of the Valencia Trough (Western Mediteranean) from two-ship Seismic Reflection and Refraction Data. *Geophys. J. Intern.* 118, 159-180.
101. 1995 Banda, E., Torné, M., Watts, A.B. and the IAM group, Iberian Atlantic Margins Group Investigates Deep Structure of Ocean Margins. *EOS*, 76, 25-26.
102. 1995 Watts, A. B. and C. Marr, Gravity anomalies and the thermal and mechanical structure of rifted continental margins. In "Rifted Ocean-Continent Boundaries". Banda. E., Talwani, M. and Torné, M. (eds.), Kluwer Academic Publishers. 65-94.
103. 1995 Watts, A.B., S. Lamb, J. D. Fairhead and J. F. Dewey, Lithospheric flexure and bending of the Central Andes. *Earth Planet. Sci. Letts.*, 134, 9-21
104. 1995 Watts, A. B. and D. G. Masson, A giant landslide on the north flank of Tenerife, Canary Islands. *J. Geophys. Res.*, 100, 24,487-24,498.
105. 1995 Masson, D. G. and A. B. Watts, Slope failures and debris avalanches on the flanks of volcanic oceanic islands, *Landslide News*, 9, 21-24
106. 1996 Hartley, R., Watts, A. B. and J. D. Fairhead. Isostasy of Africa, *Earth Planet. Sci. Letts.*, 137, 1-18.
107. 1997 Watts, A. B., Peirce, C., Collier, J., Dalwood, R., Canales, J-P. and T.J. Henstock, A seismic study of lithospheric flexure at Tenerife, Canary Islands. *Earth Planet. Sci. Letts.* 146, 431-448.
108. 1997 Stewart, J. and A. B. Watts, Gravity anomalies and spatial variations of flexural rigidity at mountain ranges. *J. Geophys. Res.* 102, 5327-5352.
109. 1997 Watts, A. B. and J. D. Fairhead, Gravity anomalies and magmatism at the western margin of the British Isles. *Geol. Soc. London.* 154, 523-529.
110. 1997 Collier, J. and A. B. Watts, Seismic reflection profile constraints on lithospheric extension : Pure and Simple. *Geophys. J. Int.* 129, 737-748.
111. 1997 Collier, J., Dañobeitia, J. J., Watts, A.B. & CD82 Scientific Party, Evidence for low-angle, planar faults in slow-spreading oceanic crust. *Geology*, 25, 1075-1078.
112. 1998 Watts, A. B. and J. Stewart, Gravity anomalies and segmentation of the West Africa continental margin. *Earth Planet. Sci. letts.* 156, 239-252.
113. 1998 Madon, M. and A. B. Watts, Gravity anomalies over the Penyu and Malay basin, SE Asia. *Basin Research*, 10, 375-392.

114. 1998 Watts, A. B. and D. G. Masson, Reply to comment on "A giant landslide on the north flank of Tenerife, Canary Islands, *J. Geophys. Res.* 103, 9949-9952.
115. 1998 Collier, J., Henstock, T. J., C. Peirce and A. B. Watts, A detailed geophysical study in the Canary Basin (eastern Atlantic): implications for the internal structure of 130 Ma oceanic crust. *Geophys. J. Int.*, 135, 943-963.
116. 1999 Urgeles, R., Masson, D. G., Canals, M., Watts, A. B., and LeBas, T. P, Recurrent large-scale landsliding on the west flank of La Palma, Canary Islands. *J. Geophys. Res.*, v. 104, 25,331-25,348.
117. 1999 Watts, A. B. and J. D. Fairhead, A process-oriented approach to the interpretation of the gravity anomaly signature at continental margins, *Leading Edge*, February, 258-263.
118. 1999 Gee, M. D. G. Masson, A. B. Watts and P. A. Allen, The Saharan debris flow : an insight into the mechanics of long runout submarine debris flows, *Sedimentology*, 46, 317-335.
119. 1999 Haddad, D. and A. B. Watts, Gravity anomalies and flexure of the lithosphere at the Papua-New Guinea foreland basin. *Tectonics*. 18, 827-842.
120. 1999 Higgs, R., Madon, M. and A. B. Watts, Discussion on "Gravity anomalies, subsidence history and the tectonic evolution of the Malay and Penyu basins (offshore peninsula Malaysia)". *Basin Research*. 11, 285-290.
121. 1999 Hayward, N., A. B. Watts, G. K. Westbrook and J. Collier, A Seismic Reflection and GLORIA study of Compressional Deformation in the Gorringe Bank region. *Geophys. J. Int.* 138, 831-850
122. 1999 Comas, M. C., J. P. Platt, J. I. Soto and A. B. Watts, The origin and tectonic history of the Alboran basin: insights from Leg 161 results, In Zahn, R., Comas, M. C. and Klaus, A. (eds), *Proceedings of the Ocean Drilling Program*, Scientific Results, Vol 161, 555-580.
123. 1999 Watts, A. B., The growth and decay of oceanic islands. In "Geomorphology and Plate Tectonics", M. A. Summerfield (ed), *John Wiley and Sons Ltd.* 339-360.
124. 2000 Stewart, J., A. B. Watts and J. Bagguley, Three-dimensional analysis of gravity anomalies, subsidence history and crustal structure at the continental margin offshore Namibia. *Geophys. J. Int.*, 141, 724-746.
125. 2000 Watts, A. B. and S. Zhong, Observations of flexure and the rheology of the oceanic lithosphere. *Geophys. J. Int.* 142, 855-875.
126. 2000 Watts, A. B., W. S. McKerrow and E. Fielding, Lithospheric flexure, uplift and landscape evolution in south-central England. *J. Geol. Soc. London.* 157, 1169-1177.
127. 2000 Canales, J.P., J. J. Dañobeitia and A. B. Watts, Wide-angle seismic constraints on the internal structure of Tenerife, Canary Islands, *J. Volcan. and Geotherm. Res.* 103, 65-81, 2000
128. 2001 Gee, M. J. R., D. G. Masson, A. B. Watts and N. C. Mitchell, Offshore continuation of volcanic rift zones, El Hierro, Canary Islands. *J. Volcan. and Geotherm. Res.* 105, 107-119.

129. 2001 Gee, M. J. R., D. G. Masson, A. B. Watts and P. A. Allen, Passage of debris flows and turbidity currents through a topographic constriction: Seafloor erosion and deflection of pathways. *Sedimentology*, 48, 1389-1411
130. 2001 Gee, M. J., A. B. Watts, D. G. Masson, N. C. Mitchell, Landslides and the evolution of El Hierro in the Canary Islands. *Marine Geology*, 177, 271-293.
131. 2001 Watts, A. B. and D. G. Masson, New sonar evidence for recent catastrophic collapses of the north flank of Tenerife, Canary Islands. *Bull. Volcanology*. 63, 8-19.
132. 2001 Haddad, D., A. B. Watts and J. Lindsay, Evolution of the intracratonic Officer basin, central Australia: implications from subsidence analysis and gravity modelling. *Basin Research*, 13, 217-238.
133. 2001 Watts, A. B., W. S. McKerrow and E. Fielding, "Discussion on lithospheric flexure, uplift and landscape evolution in south-central England – Reply to J. C. W. Cope", *J. Geol. Soc. London*, 158, 725-727.
134. 2001 Watts, A. B., Gravity anomalies, flexure and, crustal structure at the Mozambique rifted margin, *Marine and Petroleum Geology*, 18, 445-455.
135. 2001 Collier, J.S and A. B. Watts, Lithospheric response to volcanic loading by the Canary islands: Constraints from seismic reflection data in their flexural moats. *Geophys. J. Int.* 147, 660-676.
136. 2001 Watts, A. B., W. S. McKerrow and E. Fielding, "Discussion on lithospheric flexure, uplift and landscape evolution in south-central England – Reply to M. Simms and D. T. Donovan", *J. Geol. Soc. London*. 158, 877-879.
137. 2001 Armstrong, G. and A. B. Watts, Spatial variations in Te in the southern Appalachians, Eastern United States. *J. Geophys. Res.* 106, 22,009-22,026.
138. 2001 Watts, A. B. "*Isostasy and Flexure of the Lithosphere*". Cambridge University Press. 458 pp.
139. 2002 Masson, D. G., A. B. Watts, M. J. R. Gee, R. Urgeles, N. C. Mitchell, T. P. Le Bas and M. Canals, Slope failures on the flanks of the western Canary Islands. *Earth Sci. Rev.* 57, 1-35.
140. 2002 Lin, A. T.-S. and A. B. Watts, Origin of the West Taiwan basin by orogenic loading and flexure of a rifted continental margin. *J. Geophys. Res.* 107, No B9, 2185, doi:10.1029/2001JB000669.
141. 2002 Zhong, S. and A. B. Watts, Constraints on the dynamics of mantle plumes from uplift of the Hawaiian Islands. *Earth Planet. Sci Letts.*, 203, 105-116.
142. 2002 Mitchell, N. C., D. G. Masson, A. B. Watts, M. J. R. Gee and R. Urgeles, The morphology of the submarine flanks of volcanic ocean islands: A comparative study of the Canary and Hawaiian hotspot islands, *J. Volcan. Geotherm. Res.*, 115, 83-107.
143. 2003 Ali, M. Y., A. B. Watts, I. Hill, A seismic reflection profile study of lithospheric flexure in the vicinity of the Cape Verde islands, *J. Geophys. Res.* 108, 2239, doi:10.1029/2002JB002155.

144. 2003 Watts, A. B. and E. B. Burov, Lithospheric strength and its relationship to the elastic and seismogenic layer thickness, *Earth Planet. Sci. Letts.*, 213, 113-131.
145. 2003 Lin A, T-S, A. B. Watts and S. Hesselbo, Cenozoic stratigraphy and subsidence history of the South China Sea margin in the Taiwan region, *Basin Research*, 15, 453-478.
146. 2004 Pérez-Gussinyé, M., A. R. Lowry, A. B. Watts and I. Veligcogna, On the recovery of effective elastic thickness using spectral methods: Examples from synthetic data and from the Fennoscandia shield. *J. Geophys. Res.* 108, doi:10.1029/2003JB002788.
147. 2004 Hillier, J. K. and A. B. Watts, The “plate-like” subsidence of the East Pacific Rise – South Pacific Superswell system. *J. Geophys. Res.* 109, doi: 10.1029/2004JB003041.
148. 2005 Watts, A. B., W. S. McKerrow and K. Richards, Localised Quaternary uplift of south-central England. *J. Geol. Soc. London*, 162, 13-24
149. 2005 Corfield, R., A. B. Watts and M. P. Searle, Subsidence history of the north Indian continental margin, Zanskar-Ladakh Himalaya, NW India. *J. Geol. Soc. London*, 162, 135-146.
150. 2005 Hillier, J. K. and A. B. Watts, The relationship between depth and age in the North Pacific ocean, *J. Geophys. Res.*, 110, doi:10.1029/2004JB003406
151. 2005 Pérez-Gussinyé, M. and A. B. Watts, The long-term strength of Europe and its implications for plate forming processes, *Nature*, 436, doi:10.1038/nature03854
152. 2005 Corfield, R. I., A. B. Watts and M. P. Searle, Discussion on subsidence history of the north Indian continental margin, Zanskar-Ladakh Himalaya, NW India: Reply to E. Garzanti, D. Sciunnach and M. Gaetani, *J. Geol. Soc. London*, 162, 889-892.
153. 2005 Ali, M. A., A. B. Watts and I. Hill, Structure of Mesozoic oceanic crust in the vicinity of the Cape Verde islands from seismic reflection profiles, *Marine Geophys. Res.*, 24, 329-343
154. 2005 Jordan, T. A. and A. B. Watts, Gravity anomalies, flexure and the elastic thickness structure of the India-Eurasia collisional system, *Earth Planet. Sci. Letts.*, 236, 732-750.
155. 2006 Burov, E. B. and A. B. Watts, The long-term strength of continental lithosphere: "jelly sandwich" or "crème-brûlée", *GSA Today*, 16, 4-10.
156. 2006 Robinson, D. P., S. Das, and A. B. Watts, Earthquake rupture stalled by a subducting fracture zone, *Science*, 312, 1203-1205.
157. 2006 Watts, A. B., D. T. Sandwell, W. H. F. Smith, and P. Wessel, Global gravity, bathymetry, and the distribution of submarine volcanism through space and time, *J. Geophys. Res.*, 111, doi:10.1029/2005JB004083.
158. 2006 Wyer, P., and A. B. Watts, Gravity anomalies and segmentation at the East Coast, USA continental margin, *Geophys. J. Int.*, doi: 10.1111/j.1365-1246X.2006.03066.x.
159. 2006 Rodger, M., A. B. Watts, C. J. Greenroyd, C. Peirce, and R. W. Hobbs, Evidence for unusually thin oceanic crust and strong mantle beneath the Amazon Fan, *Geology*, 34, 1081-1084; doi:10.1130/G22966A.22961.

160. 2007 Hillier, J. K. and A. B. Watts, Global distribution of seamounts from ship-track bathymetry data", *Geophys. Res. Letters*, 34, doi:10.1029/2007GL029874
161. 2008 Pérez-Gussinyé, M., A. R. Lowry, A. B. Watts, Effective elastic thickness of South America and its implications for intracontinental deformation, G^3 , 8, doi:10.1029/2006GC001511
162. 2007 Greenroyd, C. J., C. Peirce, M. Rodger, A. B. Watts, R. W. Hobbs, Crustal structure of the French Guiana margin, West Equatorial Atlantic, *Geophysical J. Int.* 169 (3), 964-987, doi:10.1111/j.1365-246X.2007.03372.x
163. 2007 Watts, A. B., "An overview", In *Treatise on Geophysics* (Ed. G. Schubert) Volume 6. Crust and Lithosphere Dynamics (Ed. A. B. Watts), Elsevier B.V., 1-49.
164. 2007 Lane, N., A. B. Watts, A. Farrant, "An analysis of Cotswold topography: Insights into the landscape response to denudational isostasy". *J. Geol. Soc. London.*, 165, 85-103.
165. 2008 Greenroyd, C., C. Peirce, M. Rodger, A. B. Watts, R. W. Hobbs, "Demerara Plateau - the structure and evolution of a transform passive margin", *Geophys. J. Int.*, 172, doi:10.1111/j.1365-246X.2007.03662.x
166. 2008 Pim, J., C. Peirce, A. B. Watts, I. Grevemeyer, A. Krabbenhoft, "Crustal structure and origin of the Cape Verde Rise", *Earth Planet. Sci. Letts.*, 272, 422-428.
167. 2008 Greenroyd, C., C. Peirce, M. Rodger, A. B. Watts, R. W. Hobbs, "Do fracture zones define continental margin segmentation? - evidence from the French Guiana margin", *Earth Planet. Sci. Letts.*, 272, 553-566.
168. 2009 Ali, M. and A. B. Watts, "Subsidence history, gravity anomalies and flexure of the United Arab Emirates foreland basin", *GeoArabia*, 14, 17-44.
169. 2009 Close, D. I., A. B. Watts, H. M. J. Stagg, "A marine geophysical study of the Wilkes land rifted continental margin, Antarctica", *Geophys. J. Int.*, 177, 430-450.
170. 2009 Das, S. and A. B. Watts, "Effect of subducting seafloor topography on the rupture characteristics of great subduction zone earthquakes" S. Lallemand and F. Funiciello (Eds.), *Subduction Zone Geodynamics*, doi: 10.1007/978-3-540-87974-9, Springer-Verlag, 103-118.
171. 2009 Lane, N., A. B. Watts, A. Farrant, Reply to discussion on "An analysis of Cotswold topography: insights into the landscape response to denudational isostasy", *J. Geol. Soc. London*, 166, 584.
172. 2009 Watts, A. B., M. Rodger, C. Peirce, C. Greenroyd, R. W. Hobbs, "Seismic structure, gravity anomalies and flexure of the Amazon continental margin, NE Brazil", *J. Geophys. Res.*, doi:10.1029/2008JB006259,
173. 2009 Kalnins, L. and A. B. Watts, "Spatial variations in effective elastic thickness in the western Pacific Ocean and their implications for Mesozoic volcanism", *Earth Planet. Sci. Letts.*, doi: 10.1016/j.epsl.2009.06.018, 286, 89-100.

174. 2010 Contreras-Reyes, E., I. Grevemeyer, A. B. Watts, L. Planert, E.R. Flueh, C. Peirce, "Crustal intrusion beneath the Louisville hotspot track", *Earth Planet. Sci. Letts.*, 289, 323-333.
175. 2010 Koppers, A. A. P. and A. B. Watts, "Seamounts as a window to physical and chemical geodynamics", Special Volume on "Mountains in the Sea", *Oceanography*, 23, 42-57.
176. 2010 Watts, A. B., A. A. P. Koppers and D. Robinson, "Seamount subduction and earthquakes", Special Volume on "Mountains in the Sea", *Oceanography*, 23, 166-173, 2010.
177. 2010 Cunha, T. A., A. B. Watts, L. M. Pinheiro, R. Myklebust, "Seismic and gravity anomaly evidence of large-scale deformation off SW Portugal", *Earth Planet Sci. Letts.*, doi:10.1016/j.epsl2010.01.047
178. 2010 Wilson, D. J., C. Peirce, A. B. Watts, I. Grevemeyer, A. Krabbenhoft, "Uplift at lithospheric swells I: seismic and gravity constraints on the crust and uppermost mantle structure of the Cape Verde mid-plate swell", *Geophys. J. Int.*, 182, 531-550
179. 2010 Lamb, S. and A. B. Watts, "The origin of mountains – implications for the behavior of Earth's lithosphere", *Current Science, Perspectives in Earth Sciences – 2010*, 99, 1699-1718.
180. 2011 Watts, A. B., "Isostasy", *Encyclopedia of Solid Earth Geophysics*, Gupta, H. (Ed.), 647-662, Springer.
181. 2011 Contreras-Reyes, E., I. Grevemeyer, A. B. Watts, E. R. Flueh, C. Peirce, S. Moeller, C. Papenberg, "Deep seismic structure of the Tonga subduction zone: Implications for mantle hydration, tectonic erosion, and arc magmatism", *J. Geophys. Res.*, 116, doi:10.1029/2011JB008434
182. 2012 Watts, A. B., "Passive margin models", *Regional Geology and Tectonics: Phanerozoic Rift Systems and Sedimentary Basins*, Editors: D. G. Roberts and A. W. Bally. Volume 1B, Chapter 3, 33-58, Elsevier, Amsterdam.
183. 2012 Hutton, E. W. H., J. P. M. Syvitski and A. B. Watts, "Isostatic flexure of a finite slope due to sea-level rise and fall", *Computers & Geosciences*, doi:10.1016/j.cageo.2012.03.020
184. 2012 Watts, A. B., C. Peirce, I. Grevemeyer, M. Paulatto, W. Stratford, D. Bassett, J. A. Hunter, L. M. Kalnins, and C. E. J. de Ronde, "Rapid rates of growth and collapse of Monowai submarine volcano in the Kermadec Arc", *Nature Geoscience*, doi:10.1038/NGEO1473
185. 2013 Ali, M. Y., A. B. Watts and M. P. Searle, "Seismic stratigraphy and subsidence history of the United Arab Emirates (UAE) rifted margin margin and overlying foreland basins", *Lithosphere Dynamics and Sedimentary Basins: The Arabian plate and analogues*, Editors: K. A. Al Hosani et al., p127-144, Springer-Verlag Berlin Heidelberg, 474pp.
186. 2013 Wilson, D. J., C. Peirce, A. B. Watts, I. Grevemeyer, "Uplift at lithospheric swells—II: is the Cape Verde mid-plate swell supported by a lithosphere of varying mechanical strength?", *Geophys. J. Int.*, doi: 10.1093/gji/ggt034
187. 2013 Martinez-Garcia, P., M. Comas, J. I. Soto, L. Lonergan, A. B. Watts, "Strike-slip tectonics and partial inversion in the Western Mediterranean: the

- Post-Messinian basin evolution of the Alboran Sea", *Basin Research*. 25, 1–27, doi: 10.1111/bre.12005
188. 2013 Ali, M. Y. and A. B. Watts, "Subsidence history, crustal structure and evolution of the Somaliland-Yemen conjugate margin", *J. Geophys. Research*, 118, 1-12, doi: 10.1002/jgrb.50113.
 189. 2013 Timm, C., D. Bassett, I.J. Graham, M. Leybourne, Cornel E.J. de Ronde, J. Woodhead and A. B. Watts, "Louisville seamount subduction and its implication on mantle flow beneath the central Tonga-Kermadec arc.", *Nature Communications*, doi: 10.1038/ncomms2702.
 190. 2013 Maystrenko Y. P., M. Scheck-Wenderoth, A. Hartwig, Z. Anka, A. B. Watts, K. K. Hirsch, S. Fishwick, "Structural features of the Southwest African continental margin according to results of lithosphere-scale 3D gravity and thermal modeling", *Tectonophysics*.
 191. 2013 Watts, A. B., S. Zhong and J. Hunter, "Lithosphere behavior on seismic through geologic time-scales". *Annual Review of Earth and Planetary Sciences*. 41, 443-468, doi: 10.1146/annurev-earth-042711-105457
 192. 2013 Mouthereau F, A. B. Watts, E. Burov, "Structure of orogenic belts controlled by lithospheric age." *Nature Geoscience*: doi: 10.1038/NGEO902
 193. 2013 Zhong S. J. and A. B. Watts, "Lithospheric deformation induced by loading of the Hawaiian Islands and its implications for mantle rheology". *J. Geophys. Res.* 118: 6025-6048, doi: 10.1002/2013JB010408
 194. 2013 West A. J., M. Fox, R. T. Walker, A. Carter, T. Harris et al., "Links between climate, erosion, uplift, and topography during intracontinental mountain building of the Hangay Dome, Mongolia". *Geochemistry Geophysics Geosystems* 14: doi: 10.1002/2013GC004859
 195. 2014 Paulatto M, A. B. Watts, C. Peirce, "Potential field and high-resolution bathymetry investigation of the Monowai volcanic centre, Kermadec Arc: implications for caldera formation and volcanic evolution". *Geophys. J. Int.*: doi: 10.1093/gji/ggt512
 196. 2014 Ali, M. Y., A. B. Watts and A. Farid, "Gravity anomalies of the United Arab Emirates: Implications for basement structures and infra-Cambrian salt distribution", *Georabia*, 19, 85-112.
 197. 2014 Nomikou P, M.M. Parks, D. Papanikolaou, D.M. Pyle, T. A. Mather et al., "The emergence and growth of a submarine volcano: The Kameni islands, Santorini (Greece)". *GeoResJ*, 1-2, 8-18.
 198. 2014 Funnell, M. J., C. Peirce, W. R. Stratford, M. Paulatto, A. B. Watts, and I. Grevemeyer, "Structure and deformation of the Kermadec forearc in response to subduction of the Pacific oceanic plate", *Geophys. J. Int.*, 199, 1286-1302.
 199. 2015 Stratford, W., C. Peirce, M. Paulatto, M. Funnell, A. B. Watts, I. Grevemeyer, and D. Bassett, "Seismic velocity structure and deformation due to the collision of the Louisville Ridge with the Tonga-Kermadec Trench", *Geophys. J. Int.*, 200, 1503-1522, doi: 10.1093/gji/ggu475
 200. 2015 Ali, M. Y. and A. B. Watts, "Tectonic evolution of sedimentary basins of northern Somalia", *Basin Research*, 1-25, doi: 10.1111/bre.12113

201. 2015 Watts, A. B., P. Nomikou, J. D. P. Moore, M. M. Parks, M. Alexandri
“Historical bathymetric charts and the evolution of Santorini submarine
volcano, Greece”, *Geochemistry Geophysics Geosystems*. 16,
doi:10.1002/2014GC005679
202. 2015 Bassett, D. and A. B. Watts, “Gravity anomalies, crustal structure and
seismicity at subduction zones: Part 1 - Seafloor roughness and
subducting relief”, *Geochemistry Geophysics Geosystems*.
doi: 10.1002/2014GC005684
203. 2015 Bassett, D. and A. B. Watts, “Gravity anomalies, forearc structure and
seismicity in subduction zones: Part 2 - Interrelationships between
crustal structure and seismogenic behaviour”, *Geochemistry,
Geophysics, Geosystems*, doi: 10.1002/2014GC005685
204. 2015 Grevemeyer, I., E. Gràcia, A. Villaseñor, W. Leuchters, A. B. Watts,
“Seismicity and active tectonics in the Alboran Sea, Western
Mediterranean: Constraints from an offshore-onshore seismological
network and swath bathymetry data”, *J. Geophys. Res.* 120,
doi:10.1002/2015JB012073.
205. 2015 Pilia, S., M. Y. Ali, A. B. Watts, M. Searle, “UAE-Oman mountains give
clues to oceanic crust and mantle rocks”, *EOS*, 96,
doi:10.1029/2015EO040937.
206. 2016 Døssing, A., P. Japsen, A. B. Watts, T. Nielson, W. Jokat, H. Thybo, T. Dahl-
Jensen, “Miocene uplift of the NE Greenland margin linked to plate
tectonics: Seismic evidence from the Greenland Fracture Zone, NE
Atlantic”, *Tectonics*, doi: 10.1002/2015TC004079.
207. 2016 Bassett, D., D. T. Sandwell, Y. Fialko, A. B. Watts, “Residual topography and
gravity anomalies reveal structural controls on co-seismic slip in the
2011 M_w 9.0 Tohoku-oki earthquake”, *Nature* 531, 92–96,
doi:10.1038/nature16945.
208. 2016 Metz, D., A. B. Watts, I. Grevemeyer, M. Rodgers, M. Paulatto, “Ultra long
range hydroacoustic observations of submarine volcanic activity at
Monowai, Kermadec Arc, *Geophys. Res. Letts.*, doi:
10.1002/2015GL067259.
209. 2016 Hunter, J. and A. B. Watts, “Gravity anomalies, flexure and mantle rheology
seaward of Circum-Pacific trenches”, *Geophys. J. Int.*, 207, 288-316,
doi: 10.1093/gji/ggw275.
210. 2016 Paxman, G., A. B. Watts, F. Ferraccioli, T. A. Jordan, R. E. Bell, S. S. R.
Jamieson and C. A. Finn, “Erosion-driven uplift in the Gamburtsev
Subglacial Mountains of East Antarctica”, *Earth Planet. Sci. Letts.*, 452,
1-14, doi:10.1016/j.epsl.2016.07.040211.
211. 2016 Nomikou, P., T. H. Druitt, C. Hübscher, T. A. Mather, M. Paulatto, L. M.
Kalnins, K. Kelfoun, D. Papanikolaou, K. Bejeloul, D. Lampridou, D.
M. Pyle, S. Carey, A. B. Watts, M. M. Parks, “Post-eruptive flooding of
Santorini caldera and implications for tsunami generation”, *Nature
Communications*, doi: 10.1038/ncomms13332.
212. 2016 Walker, R. T., M. Telfer, R. L. Kahle, A. Buta-Neto, M. W. Dee, B. Kahle, J.-
L. Schweninger, R. A. Sloan, C. Tunguno, A. B. Watts, “Rapid

- mantle-driven uplift along the Angolan margin in the late Quaternary”, *Nature Geoscience*, 909-914, doi: 10.1038/NGEO2835.
213. 2016 Bassett, D., H. Kopp, R. Sutherland, S. Henrys, A. B. Watts, C. Timm, M. Scherwath, I. Grevemeyer, C. E. J. de Ronde, “Crustal structure of the Kermadec arc from MANGO seismic refraction profiles”, *J. Geophys. Res.* 121, 7514–7546, doi:10.1002/2016JB013194.
214. 2017 Paxman, G. J. G., S. S. R. Jamieson, F. Ferraccioli, M. J. Bentley, R. Forsberg, N. Ross, A. B. Watts, H. F. J. Corr, T. A. Jordan, “Uplift and tilting of the Shackleton Range in East Antarctica driven by glacial erosion and normal faulting”, *J. Geophys. Res.*, doi: 10.1002/2016JB013841.
215. 2017 Tozer, B., A. B. Watts, M. C. Daly, “Crustal structure, gravity anomalies and subsidence history of the Parnaíba cratonic basin, Northeast Brazil”, *J. Geophys. Res.*, 122, 5591-5621, doi: 10.1002/2017JB014348.
216. 2017 Watts, A. B. and J. D. P. Moore, “Flexural isostasy: Constraints from gravity and topography power spectra”, *J. Geophys. Res.*, 122, doi: 10.1002/2017JB014571.
217. 2017 Martínez-García, P., M. Comas, L. Lonergan, A. B. Watts, “From extension to shortening: tectonic inversion distributed in time and space in the Alboran Sea, Western Mediterranean”, *Tectonics*, doi: 10.1002/2017TC004489.
218. 2018 Ali, M. Y., S. Aidarbayev, M.P. Searle, A. B. Watts, “Crustal Structure, Subsidence History and Seismic Stratigraphy of the Western Musandam Peninsula, Oman - United Arab Emirates (UAE) Mountains”, *Tectonics*, doi: 10.1002/2017TC004777.
219. 2018 Watts, A. B., B. Tozer, M. C. Daly, J. Smith, “A comparative study of the Parnaíba, Michigan and Congo cratonic basins”, In Daly, M. C., Fxxk, R. A., Julià, J., Watts, A. B. & Macdonald, D. I. (eds), *Cratonic Basin Formation: A case study of the Parnaíba basin of Brazil*, *Geol. Soc. Lond. Special Publications*, 472, doi: 10.1144/SP472.6.
220. 2018 Angrand, P., M. Ford, A. B. Watts, “Lateral variations in foreland flexure of a rifted continental margin: the Aquitaine Basin (SW France)”, *Tectonics*, doi: 10.1002/2017TC004670.
221. 2018 Daly, M. C., B. Tozer, A. B. Watts, “Cratonic basins and the Wilson Cycle: a perspective from the Parnaíba Basin Brazil”. In Wilson, R. W., Houseman, G. A., McCaffrey, K. J. W., Dore, A. G. & Buiter, S. J. H. (eds), *Fifty years of the Wilson Cycle Concept in Plate Tectonics*, *Geol. Soc. Lond. Special Publications*, 470, doi: 10.1144/SP470.13.

Submitted:

222. 2017 Morgan, R. L. and A. B. Watts, “Seismic and gravity constraints on flexural models for the origin of seaward dipping reflectors”, *Geophys. J. Int.*
223. 2018 Paxman, G. J. G., S. R. S. Jamieson, F. Ferraccioli, M. J. Bentley, N. Ross, A. B. Watts, G. Leitchenkov, E. Armadillo, D. Young, “Lithospheric

- flexure and landscape evolution in the Wilkes Subglacial Basin and Transantarctic Mountains of East Antarctica”. *J. Geophys. Res.*
224. 2018 Metz, D., A. B. Watts, I. Grevemeyer, M. Rodgers, “Tracking submarine volcanic activity at Monowai: Constraints from long-range hydroacoustic measurements”, *J. Geophys. Res.*
225. 2018 Pilia, S., P. Arroucau, M. Y. Ali, A. B. Watts, “Continental collision, obduction and lower crustal layered azimuthal anisotropy in the region adjacent to the Arabia-Eurasia collision zone”, *Earth Planet. Sci. Letts.*

In preparation:

226. 2018 Richards, F. D., L. M. Kalnins, A. B. Watts, B. E. Cohen, R. J. Beaman, “The morphology of the Tasmantid Seamounts: Interactions between tectonic Inheritance and magmatic evolution”