

## 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:

- 1990-present *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.

### Honors and awards:

- 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.

### Visiting positions:

- 2011 *Visiting Professor:* Victoria University, Wellington, New Zealand  
2010, 2015 *Visiting Professor:* University of Colorado, Boulder, USA  
2004-2005 *Green Scholar:* Scripps's Institution of Oceanography, University of California, La Jolla, California, USA  
2004,2006, 2010 *Visiting Professor:* University Pierre et Marie Curie, Paris, France

1998	<i>Distinguished Crosby Visiting Professor:</i> Massachusetts Institute of Technology, Boston, USA
1987-1988	<i>Royal Society Guest Fellow:</i> University of Oxford
1983	<i>Visiting Professor:</i> Institut Physique du Globe de Paris, Paris, France

### **Oceanographic cruises:**

- *R/V 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, 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 (13 completed, 1 in progress):**  
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 (32 completed, 6 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, 1 in progress)**

### Teaching (highlights):

- **Undergraduate:**
  - **First Year:** Plate tectonics. Gravity and isostasy. The geological history of the British Isles. *Field trips to Assynt, Aran 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.

### Editorial board:

2005-present: 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 search committees for Editor-in-Chief of Tectonics (member) and JGR-Solid Earth (Chair)
- Member, NSF GeoPRISMS Oversight and Steering Committee
- Member, AGU Scientific Trends Task Force
- Member, The Royal Society Newton Advanced Fellowship Awards Committee
- Council of the AGU and President-elect, Tectonophysics Section (2012-2014)
- American Geophysical Union (AGU), Tectonophysics Section Fellows Nomination Committee (Chair)
- 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
- 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 Hadera (University of Aberdeen).
- British Institutions Reflection Profiling Syndicate (BIRPS) Programme Board (Chair).
- NERC Review committee of the BIRPS program.
- Science Steering Committee for a Deep Drill-Hole on Hawaii.
- 1981 Conference on Scientific Ocean Drilling (COSOD) – Working Group on Tectonic evolution of continental margins and oceanic crust (Chair)
- 1978-1980 NASA working group on a Dedicated Satellite Gravity Mission (GRAVSAT) – Solid-Earth Applications (Chair)
- Tectonics Panel of the Deep-Sea Drilling Project (DSDP)
- 1979-1981 US National Academy Sciences Committee on Earth Sciences
- 1978-1980 US National Academy Sciences Panel on Gravity and Sea-level

**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), 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), Petroleum Institute (Abu Dhabi), Hydrocarbons industry (Exxon, Mobil, Marathon, Phillips, BP-Amoco, BPX, BP-Brazil, Penzoil, Shell, Chevron).

**Publications (203, 3 submitted):**

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. Roufousse, 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. Roufousse, 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.
  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.
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