

DON P. CHAMBERS

College of Marine Science, University of South Florida, 140 7th Ave S, St. Petersburg, FL 33701

Phone: (727) 553-3351, Fax: (727) 553-1189

dchambers@marine.usf.edu

Education:

B.S., Aerospace Engineering, University of Texas at Austin, December 1990.

Ph. D., The University of Texas at Austin, December 1996.

Professional Experience:

Aug. 2009 – Present:	Associate Professor, College of Marine Science, University of South Florida
Sept. 2003 – Aug. 2009	Research Scientist, Center for Space Research, The University of Texas at Austin
June 2000 – Aug. 2003	Research Associate, Center for Space Research
Aug. 1997 – May 2000	Research Engineer/Scientist Associate IV, Center for Space Research
Jan. 1997 – Aug. 1997	Postdoctoral Fellow, Center for Space Research

Honors and Awards (Since 2003):

2003, NASA Group Achievement Award for Jason-1 Project Team

2003, NASA Group Achievement Award for GRACE Project Team

2008, Geodesy Section Award, American Geophysical Union

Membership and Service in National and International Organizations:

1993 to present	Member, American Geophysical Union
1998 to present	Member, American Meteorological Society
1999 to present	Member, NASA Ocean Surface Topography Science Team
2002 to present	Member, NASA Interdisciplinary Science Team
2003 to present	Member, NASA Gravity Recovery and Climate Experiment
2005 to present	Member, European Geosciences Union
2005 to 2007	Contributing Author, IPCC Fourth Assessment Report
2006 to present	Member, NASA Energy and Water Science Team
2009 to present	Member, NASA Sea Surface Salinity Science Team
2010 to present	Member, Phenomena, Observations, and Synthesis Panel, US CLIVAR Program
2010 to 2012	Member, Whitten Medal Committee, American Geophysical Union
2010 to 2013	Lead Author, IPCC Fifth Assessment Report

Refereed Journal Articles/Book Chapters (Since 2003):

As Lead Author

- 1) **Chambers, D. P.**, J. Wahr, M. E. Tamisea, and R. Steven Nerem, Ocean Mass from GRACE and Glacial Isostatic Adjustment. *J. Geophys. Res.*, in press, 2010.
- 2) **Chambers, D. P.** and J. K. Willis, A Global Evaluation of Ocean Bottom Pressure from GRACE, OMCT, and Steric-Corrected Altimetry, *J. Atmos. Ocean. Tech.*, 27, 1395-1402, DOI: 10.1175/2010JTECHO738.1, 2010.
- 3) **Chambers D. P.** and J. K. Willis, Low-frequency exchange of mass between ocean basins, *J. Geophys. Res.*, 114, C11008, doi:10.1029/2009JC005518, 2009.

- 4) **Chambers D. P.**, Calculating Trends from GRACE in the Presence of Large Changes in Continental Ice Storage and Ocean Mass, *Geophys. J. Int.*, 176, 415-419, doi: 10.1111/j.1365-246X.2008.04012.x, 2009
- 5) **Chambers D. P.** and J. K. Willis, Analysis of large-scale ocean bottom pressure variability in the North Pacific, *J. Geophys. Res.*, 113, C11003, doi:10.1029/2008JC004930, 2008
- 6) **Chambers D. P.**, Gravimetric Methods – Spacecraft Altimeter Measurements, in *Treatise on Geophysics, Vol. 3 – Geodesy*, G. Schubert (ed.), Oxford: Elsevier Ltd, pp. 123-162, 2007
- 7) **Chambers D.**, M. Tamisiea, R. S. Nerem, J. Ries, Effects of Ice Melting on GRACE Observations of Ocean Mass Trends, *Geophys. Res. Ltrs*, 34, L05610, doi:10.1029/2006GL029171, 2007
- 8) **Chambers D. P.**, Evaluation of new GRACE time-variable gravity data over the ocean, *Geophys. Res. Ltrs*, 33, L17603, doi:10.1029/2006GL027296, 2006
- 9) **Chambers D.**, Observing seasonal steric sea level variations with GRACE and satellite altimetry, *J. Geophys. Res.*, 111 (C3), C03010, doi:10.1029/2005JC002914, 2006
- 10) **Chambers D. P.**, J. Wahr, R. S. Nerem Preliminary observations of global ocean mass variations with GRACE, *Geophys. Res. Ltrs*, 31, L13310, doi:10.1029/2004GL020461, 2004
- 11) **Chambers D. P.**, J. C. Ries, and T. J. Urban, Calibration and Verification of Jason-1 Using Global Along-Track Residuals with TOPEX, *Marine Geodesy, Special Issue on Jason-1 Calibration/Validation, Part 1, Vol. 26*, 305-318, 2003

As Co-Author

- 1) Willis, J. K., **D. P. Chambers**, C. K. Shum, and C-Y Kuo, Global Sea Level Rise: Recent Progress and Challenges for the Decade to Come, *Oceanography*, in press, 2010.
- 2) Wouters, B., and **D. P. Chambers**, Analysis of Seasonal Ocean Bottom Pressure Variability in the Gulf of Thailand from GRACE, *Global and Planetary Change*, in press, 2010.
- 3) Roemmich, D., J. Willis, J. Gilson, D. Stammer, A. Koehl, T. Yemenis, **D. P. Chambers**, F. Landerer, J. Marotzke, J. Gregory, T. Suzuki, J. Church, N. White, C. Domingues, A. Cazenave, and P.-Y. LeTraon, Global Ocean Warming and Sea Level Rise, in *Understanding Sea-Level Rise and Variability*, J. A. Church, P. L. Woodworth, T. Aarup, and W. S. Wilson (eds.), Wiley-Blackwell, 2010.
- 4) Syed, T. H., J. S. Famiglietti, **D. P. Chambers**, J. K. Willis, and K. Hilburn, Satellite-Based Global Ocean Mass Balance Reveals Water Cycle Acceleration and Increasing Continental Freshwater Discharge, 1994-2006, *Proc. National Acad. Sci.*, doi: 10.1073/pnas.1003292107, 2010.
- 5) Nerem, R. S., **D. P. Chambers**, C. Choe, and G. T. Mitchum, Estimating mean sea level change TOPEX and from the Jason missions, *Marine Geodesy*, 33, Supplement 1, 435-446, doi: 10.1080/01490419.2010.491031, 2010.
- 6) Jin, S., **D. P. Chambers**, and B. D. Tapley, Hydrological and oceanic effects on polar motion from GRACE and models, *J. Geophys. Res.*, 115, B02403, doi:10.1029/2009JB006635, 2010.
- 7) Maximenko N., P. Niiler, M.-H. Rio, O. Melnichenko, L. Centurioni, **D. Chambers**, V. Zlotnicki, and B. Galperin, Mean dynamic topography of the ocean derived from satellite and drifting buoy, *J. Atmos. Ocean. Tech.*, 26, 1910-1919, 2009
- 8) Strassberg G., B. Scanlon, and **D. P. Chambers**, Evaluation of Groundwater Storage Monitoring with the GRACE Satellite: Case Study High Plains Aquifer, Central USA, *Water Resources Res.*, 45, W05410, doi:10.1029/2008WR006892, 2009.
- 9) Cadden D. D. H., B. Subrahmanyam, **D.P. Chambers**, and V.S.N. Murty, Surface and Subsurface Geostrophic Current Variability in the Indian Ocean From Altimetry, *Marine Geodesy*, 32, 19-29, DOI:10.1080/01490410802661955, 2009.

- 10) Syed T. H., J. Famiglietti, and **D. P. Chambers**, GRACE-based estimates of terrestrial freshwater discharge from basin to continental scales, *J. Hydrometeorology*, 10, 22-40, 2009
- 11) Wouters B., **D. P. Chambers**, and E. J. O. Schrama, GRACE observes small-scale mass loss in Greenland, *Geophys. Res. Lett.*, 35, L20501, doi:10.1029/2008GL034816, 2008
- 12) Swenson S. C., **D. P. Chambers**, and J. Wahr Estimating geocenter variations from a combination of GRACE and ocean model output, *J. Geophys. Res.*, 113, B08410, doi:10.1029/2007JB005338, 2008
- 13) J. K. Willis, **D. P. Chambers**, and R. S. Nerem, Assessing the Globally Averaged Sea Level Budget on Seasonal to Interannual Time Scales, *J. Geophys. Res.*, 113, C06015, doi:10.1029/2007JC004517, 2008
- 14) Vianna M. L., V. V. Menezes, and **D. P. Chambers**, A High Resolution Satellite-Only GRACE-based Mean Dynamic Topography of the South Atlantic Ocean, *Geophys. Res. Lett.*, 34, doi:10.1029/2007GL031912, L24604, 2007
- 15) Nerem R. S., A. Cazenave, **D. P. Chambers**, L. Fu, E. W. Leuliette, G. T. Mitchum, Comment on “Estimating future sea level change from past records” by Nils-Axel Mörner, *Glob. Planet. Change*, doi:10.1016/j.gloplacha.2006.08.002, 2006
- 16) Tapley B., J. Ries, S. Bettadpur, **D. Chambers**, M. Cheng, F. Condi, B. Gunter, Z. Kang, P. Nagel, R. Pastor, T. Pekker, S. Poole, and F. Wang, GGM02 - An Improved Earth Gravity Field Model from GRACE, *J. Geod.*, 10.1007/s00190-005-0480-z, 2005
- 17) Tapley B. D., **D. P. Chambers**, S. Bettadpur, and J. C. Ries Large Scale Ocean Circulation from the GRACE GGM01 Geoid, *Geophys. Res. Ltrs*, 30(22), 2163, doi:10.1029/2003GL018622, 2003
- 18) Shum C., Y. Yi, K. Cheng, C. Kuo, A. Braun, S. Calmant, and **D. Chambers**, Calibration of Jason-1 altimeter over Lake Erie, *Marine Geodesy, Special Issue on Jason-1 Calibration/Validation, Part 1*, Vol. 26, 335-354, 2003
- 19) Cunningham J. D., **D. P. Chambers**, C. O. Davis, A. Gerber, R. Hetz, J. P. McGuire, W. Pichel, Ocean Observer Study: A Proposed National Asset to Augment the Future U. S. Operational Satellite System, *Marine Tech. Soc. Journal*, 37 (3), 142-157, 2003

Invited Presentations at Scientific Meetings as First Author (Since 2003)

- 1) Measurements Needed to Understand Causes of Present-Day Sea Level Change, 4th Oceans from Space Symposium, Venice, Italy, 28 April 2010. (**D. P. Chambers**)
- 2) The importance of continued satellite gravity missions for understanding ocean mass variability, Assembly of European Geosciences Union, Vienna, Austria, 5 May 2010. (**D. P. Chambers**)
- 3) Measuring mean ocean mass variability with GRACE, NASA Sea Level Workshop, Austin, TX, 2-3 November 2009 (**D. P. Chambers**)
- 4) The Global Water Cycle 2003-2008: Implications for Long-Period Sea Level Change, presented at EGU General Assembly, Vienna, Austria, April, 2009 (**D. P. Chambers**, James Famiglietti & Isabella I. Velicogna, R. Steven Nerem).
- 5) Measuring sea level change with satellites (Keynote Presentation), presented at the William Smith Meeting on Sea Level, London, England, Sept. 1-2, 2008 (**D. P. Chambers**).
- 6) Causes and effects of sea level rise, Meeting of the National Academy of Sciences Board on Earth Sciences and Resources Mapping Science Committee, Irvine, CA, April 24, 2008 (**D. P. Chambers**).
- 7) Measuring variations in mean ocean mass, presented at “Satellite Observations of the Global Water Cycle Workshop”, Irvine, CA, March, 2007 (**D. P. Chambers**).
- 8) The Potential to Estimate Ocean Thermal Expansion by Combining GRACE and Satellite Altimeter Data, presented at “Understanding Sea-Level Rise and Variability”, World Climate Research

Programme Workshop, Paris, France, June 2006 (D. P. Chambers).

- 9) Assessment of GRACE Time-Variable Gravity over the Ocean, presented at Fall Meeting of AGU, San Francisco, CA, December, 2005 (D. P. Chambers).
- 10) Estimating heat storage from a combination of satellite altimetry and GRACE data (keynote address), presented at Dynamic Planet 2005 Conference, Cairns, Australia, August, 2005 (D. P. Chambers)
- 11) Determination of steric level variations from a combination of altimetry and GRACE, presented at 2nd EGU General Assembly, Vienna, Austria, April, 2005 (D. P. Chambers)
- 12) Observing the ocean water cycle with GRACE, presented at Fall Meeting of AGU, San Francisco, CA, December, 2004 (D. P. Chambers, R. S. Nerem, and J. Wahr).
- 13) Observing Low-Frequency Variability in the Indian Ocean with Satellite Altimetry, 2004 IEEE International Geoscience and Remote Sensing Symposium, Anchorage, AK, September, 2004 (D. P. Chambers and B. Subrahmanyam).
- 14) Evaluation of rates from an EOF reconstruction of sea level for 1950-2002, 1st EGU Assembly, Nice, France, April, 2004 (D. P. Chambers)

Current Research Contracts and Grants

2007-2012	NASA JPL: An Earth System Data Record of Changes in Earth Masses (Co-Investigator; UT, USF PI)
2008-2012	NASA: Steric Sea Level Variations from a Combination of GRACE, Jason-1, and Argo Float Data (Principal Investigator)
2008-2012	NASA: Mass Changes in Earth's Global Water Reservoirs (Co-Investigator; UT, USF PI)
2008-2012	NASA: Building a Climate Record of Sea Level Change (Co-Investigator; UT, USF PI)
2009-2012	NASA JPL: Assessing the Quality of Aquarius Sea Surface Salinity Measurements Using an Ocean State Estimation System (Co-Investigator; USF PI)

Previously Funded Research Contracts and Grants (Since 2003)

2003-2006	NSF Grant OCE-0326515: Quantifying The Contribution Of Ocean Dynamics To SST Anomaly Formation (Co-Investigator)
2004-2007	NASA Grant NNG04GF11G: Application of GRACE Data to Improving Ocean Heat Storage Estimates from Satellite Altimetry (Principal Investigator)
2004-2008	NASA: A Multidisciplinary Investigation of Present-Day Sea Level Change (Co-Investigator, UT PI)
2004-2008	NASA JPL: Grace Products For Hydrology And Oceanography (Co-Investigator, UT PI)
2004-2008	NASA: An Investigation of Very Low Frequency Sea Level Change Using Satellite Altimeter Data (Co-Investigator, UT PI)
2005-2008	NASA: A Study of the first global measurement of the water cycle (Co-Investigator, UT PI)
2007-2010	NASA: An independent assessment of the contribution of ice melt to sea level change from an analysis of satellite altimetry, satellite gravity, and ocean temperature measurements (Co-Investigator, UT PI)