

FRANK EDGAR MULLER-KARGER
CURRICULUM VITAE

Work Address

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

carib@marine.usf.edu
727-553-3335 Office
727-553-1103 Fax
<http://imars.usf.edu>

I. Personal Information:

Ancestry: Hispanic
Employer: University of South Florida, College of Marine Science
140 7th Ave. South, St. Petersburg, FL 33701

II. Education:

Primary and High School:

1974 *Colegio "Humboldt", Caracas, Venezuela.*

Undergraduate:

1974 Universidad Simón Bolívar, Caracas, Venezuela. Chemical Engineering. (1976, transferred to Florida Institute of Technology).

1979 Bachelor in Biological Oceanography. Florida Institute of Technology. Melbourne, FL.

Graduate:

1984 Master of Science in Oceanography. Institute of Marine Science. University of Alaska, Fairbanks, AK. Thesis: Lower trophic level studies in the marginal sea-ice zone. Advisor: Dr. Vera Alexander.

1988 Ph.D. in Marine and Estuarine Sciences. University of Maryland, Center for Environmental and Estuarine Studies (UMCEES). College Park, MD and Horn Point Environmental Laboratories, Cambridge, MD. Dissertation: Variation in the seasonal distribution of phytoplankton in the Caribbean Sea as observed in a series of Coastal Zone Color Scanner images (1978-1986). Advisors: Thomas R. Fisher (U. Maryland), and Charles R. McClain (NASA, Goddard Space Flight Center).

2001 Master of Science in Management. University of South Florida. College of Business Administration. Tampa, FL. Organizational design, leadership, human resources and modern management principles and techniques.

III. Employment:

2000/- Full Professor. Tenured. University of South Florida

Employer: University of South Florida
140 7th Ave. S., St. Petersburg, FL 33701

2007/2009 Dean, School for Marine Science and Technology, Univ. Massachusetts Dartmouth
Full Professor. Tenured. Univ. Massachusetts Dartmouth

Employer: University of Massachusetts Dartmouth
706 South Rodney French Boulevard
New Bedford, MA 02744-1221
Supervisor: Dr. Anthony Garro, Provost
agarro@umassd.edu; (508) 999-8024

2003/05 College of Marine Science Dean's Advisory Council/Biological Oceanography

2001/04 Commissioner, U.S. Commission on Ocean Policy

Voluntary, serving as nominee of and by appointment of the President of the United States. USCOP Chair: Adm. (USN/Retired) James D. Watkins

1994/00 Associate Professor. Tenured 1994. University of South Florida
 1992/94 Program Scientist, Ocean Biogeochemistry Program: National Aeronautics and Space Administration / NASA Headquarters / NASA Jet Propulsion Lab-California Institute of Technology.
 Program Scientist, NASA Sea-viewing Wide-Field-of-view Sensor (SeaWiFS) Program.
 Program Scientist, NASA Moderate Resolution Imaging Spectrometer Sensor (MODIS) Program.
Employer: CA Institute of Technology, NASA JPL and NASA HQ
Supervisors:
Dr. Diane Wickland
Diane.Wickland@hq.nasa.gov; (202) 358-0245
Dr. Robert Murphy

1989/94 Assistant Professor. Department of Marine Science, USF
 1988/89 Research Associate, Department of Marine Science, USF
Supervisor: Dr. John J. Walsh
jwalsh@marine.usf.edu; (727) 553-1164

1985/87 Consultant to Skidaway Institute of Oceanography.
 1985/87 Consultant to NASA Goddard Space Flight Center.
 1984/88 Research Assistant, CEES Program, University of Maryland.
 1984/87 Teaching Assistant, Dept. of Botany, University of Maryland.
 1979/84 Research Assistant, Institute of Marine Science, U. of Alaska.

IV. Professional Interests and Expertise:

Interdisciplinary Earth science and Earth observation,
 Oceanography, coastal and estuarine science,
 Satellite oceanography and remote sensing,
 Science education and strategic planning for formal/informal public education,
 Integration of science, management and education,
 Ocean Policy

V. Professional Awards, Honors, and Scholarships:

2010/ Silhouettes, La Gaceta (Tampa, FL; September 13, 2010); featured community figure.
 2009/- Director, International Ocean Institute – USA (IOI-USA)
 2008/- Member, Science Advisory Council, InterAmerican Institute for Climate Change Research (IAI)

2008/2009 Member, Science Advisory Council to the Massachusetts Ocean Planning Commission
 2008/2010 Board Trustee, The Ocean Explorium, New Bedford, Massachusetts
 2008/- Board Trustee, The Northstar Learning Center, New Bedford, Massachusetts
 2008/- Member, NRC committee “Committee on the Review of NOAA’s Education Programs”
 2008 “Most cited paper” mention, Continental Shelf Research, for 2005 Astor et al. paper
 2006 USF Million Dollar Researcher President's award
 2006/2007 Member, University of South Florida, President's Strategic Planning Committee
 2006/2007 Member, NRC committee "Extending Observations and Research Results to Practical Applications: A Review of NASA's Approach"

2006 Member, NRC committee “An Assessment of Balance in NASA's Science Programs”
 2005 Julius A. Stratton Award for Leadership, awarded to members of the U.S. Commission on Ocean Policy (Coastal Zone 2005 meeting)

2005/- Editorial Board, Caribbean Marine Science, Journal of the Institute for Marine Affairs (IMA), Trinidad and Tobago

2005/2008 Member, National Research Council Ocean Studies Board, National Academies
 2005/2008 U.S. Representative to the ICSU SCOR, appointed by the NRC
 2005/2008 Member and elected vice-chair, University of South Florida Research Council
 2004/- Editorial Board, Memoria, Journal of the Fundación La Salle de Ciencias Naturales de Venezuela

2004	Acknowledgement for service on the U.S. Commission on Ocean Policy by Senator E. Hollings. Congressional Record. Proceedings and Debates of the 108 th Congress, Second Session. Vol 150. No. 89.
2004	Admiral James D. Watkins Award for Contributions to Ocean Research and Education, Consortium for Oceanographic Research and Education (CORE)
2004	Gulf Guardian Award (EPA Gulf of Mexico Program)
2003	University of South Florida President's Award for Faculty Excellence
2003/2005	USF College of Marine Science Dean's Advisory Council / faculty elected representative
2001/2004	Commissioner, U.S. Commission on Ocean Policy, nominated and appointed by President George W. Bush

VI. Member:

American Geophysical Union (AGU)
American Society of Limnology and Oceanography (ASLO)
Fundación La Salle de Ciencias Naturales de Venezuela (FLASA; Founding Member)

VII. Grants and Contracts:

Grants/contracts received from NSF, NASA, NOAA, ONR, USGS, MMS, The State of Florida, The Ocean Conservancy.

2004-2010 Funded Projects: (Prior projects and funding level available on request)

EPA	US-Mexico Binational Red Tide Program. Gulf of Mexico Program Office.
FSRI	Florida Space Research Institute; Coastal remote sensing with the Space Station; Co-I with C. Hu
NSF	(1995 - 2013) The Cariaco basin oceanographic time series program. FMK PI, present Co-Is: R. Varela, Y Astor, M. Scranton, G. Taylor, R. Thunell, and K. Fanning.
NASA	An assessment of global organic carbon flux along continental margins. Co-I with C. Hu
NASA	The mapping and monitoring of change in the Florida Keys reef tract from space using L7 and MODIS. Co-I with D. Palandro.
NASA	A millennium global scale coral reef ecosystem assessment using high resolution remote sensing data. Co-I with S. Andrefouet and C. Hu
NASA	Impact of large and small rivers on adjacent oceanic environments. Co-I with C. Hu
NASA	EAGLE-EYE: Ecological Assessments of Generalized Littoral Environments – an Integrated EOS DB/Real-time MODIS Science Applications Project. Co-I with C. Hu
NASA	Decision Support System for Ecosystem-Based Management of Tropical Coral Reef Environments. 11/1/2009-10/31/2013.
NASA:	Collaborative Research with the NASA Marshall Space Flight Center.
NASA	Collaborative effort with Roff's, Inc. Study of Bluefin Tuna larvae distribution in the Gulf of Mexico. (Through 2011)
NASA	Collaborative effort with Roff's, Inc. Study of ocean environmental parameters to forecast the effects of climate variability on pelagic fish.
NASA	Environmental Assessments of Coral Reef Ecosystems: Interdisciplinary Research; Co-I with S. Andrefouet (IRD, New Caledonia, France)
NOPP	Influence of Oceanographic and Biological Processes on the Distribution of Cetaceans (D. Mann, PI; FMK co-I)
ONR	University of North Carolina; SEA-COOS remote sensing component. Co-I with C. Hu and R. Weisberg.
State of FL	Geospatial Assessment of Marine Environments (GAME); Defining coastal bioregions of Florida. Co-I with J. Ogden and H. Norris.
Texas A&M	GCOOS RA.
USGS	Use of remote sensing satellites to monitor sediment plumes in the Mississippi bight; Co-I with C. Hu
USGS	Use of remote sensing to monitor water clarity and sediment dynamics in the Chesapeake Bay. Co-I with C. Hu

VIII. Professional Activity: (last ten years; not exhaustive list)

University of Massachusetts Dartmouth

- School for Marine Science and Technology: Strategic Planning Lead
- UMass Dartmouth NEASC Planning Committee

University of South Florida

- Strategic Planning Committee
- Research Council (2005-2007, elected vice-chair)
- Internet-2 Committee
- Search Committee: Director, School for Global Sustainability
- Search Committee: Vice President for Research
- President's Task Force: Values, Vision, Mission and Goals

College of Marine Science:

- | | |
|---|-------------------------------|
| -Computer Committee | -Student recruiting Committee |
| -Library Committee | -Tenure and Promotion |
| -Marine Biology faculty recruitment committee | -Seminar Committee |
| -Biological Oceanography curriculum review | |

Editorial Board, Institute of Marine Affairs Journal: Caribbean Marine Science, Trinidad and Tobago

Editorial Board, Memoria, Fundacion La Salle de Ciencias Naturales, Venezuela

Ocean Studies Board, NRC

U.S. Commission on Ocean Policy

Organizer: Ocean Biogeochemistry Scoping Workshop, Hawaii (September 2010)

Organizer, NASA Small Satellite Technology Initiative, NASA Remotely-Piloted Vehicle workshop.

Member, SeaWiFS Science Team and SeaWiFS Science Team

Reviewer of scientific manuscripts for the AGU Global Biogeochemical Cycles.

Reviewer of scientific manuscripts for the AGU Journal of Geophysical Research.

Reviewer of scientific manuscripts for the AGU Geophysical Research Letters.

Reviewer of scientific manuscripts for the Journal of Remote Sensing of the Environment.

Reviewer of scientific manuscripts for the Journal of Continental Shelf Research.

Reviewer of scientific manuscripts for the Boletin Oceanografico de la Universidad de Oriente.

Reviewer of scientific manuscripts for the Journal of the Institute of Marine Affairs, Trinidad& Tobago.

Reviewer of scientific manuscripts for the magazine Oceanography (Oceanography Society).

Reviewer of scientific manuscripts for the Marine Technology Society.

Reviewer of scientific proposals for NASA.

Reviewer of scientific proposals for NOAA.

Reviewer of scientific proposals for NSF (Biological Oceanography, Chemical Oceanography, OSTI).

Reviewer of scientific proposals for the Interamerican Institute for Global Change.

Reviewer of scientific proposals for the Florida Space Grant Consortium.

Reviewer of scientific proposals for the Environmental Protection Agency.

Reviewer of proposals for NASA, NSF, NOAA, EPA, ONR, NOPP

IX. Research and sea-going experience:

Extensive experience using a wide variety of remote sensing, as well as field biological, geological, chemical, and physical oceanographic equipment. Familiar with stable (nitrogen) and radioactive (carbon) isotope techniques in phytoplankton work. Participated in upwards of 30 cruises in tropical to high latitude environments.

X. Special skills:

Team leadership

Languages: Spanish, German, English

SCUBA (Advanced Open Water, Rescue training, DAN O2)

Methods for wet nutrient chemistry

Methods for autoanalyzer nutrient chemistry

Productivity assays (^{14}C and ^{15}N isotopes)

Computer systems and basic network management
Satellite and ground-based remote sensing (VIS, IR)

XI. Students and trainees while at USF:

Doctoral: Maria Vega Rodriguez, Sennai Habtes, Laura Lorenzoni, Inia Soto, Digna Rueda, Enrique Montes, David Palandro, Bisman Nababan, Fernando Gilbes, Lisa Vanderbloemen, Zhiqiang Chen. Non-USF: Joe Salisbury (University of New Hampshire), Sergio Cerdeira (Universidad de la Habana).

Masters: Claudia Baron Aguilar, Juan Carlos Millan, Abbie Harris, Inia Soto, Laura Lorenzoni, Carrie Wall, Enrique Montes, Ana Lucia Odriozola, MingRui Zhang, Wensheng Yao, Jingwei Ke, Herschel T. Hochman, Josh Henson, Haiying Zhang.

Undergraduate: Ana Lucia Odriozola, John Akl (undergr., Eckerd College), Paola Castellanos (undergr., Universidad Simon Bolivar).

Post-doctoral Associates: Zhiqiang Chen, Richard Bohrer, Gilberto Gaxiola, Eduardo Santamaría, Guillermo E. Quiros, Serge Andrefouet, Cesar Fuentes-Yaco, Chuanmin Hu, Eurico D'Sa, Christian Schiller.

Trainees (not exhaustive): Paul W. Bissett, Lingzis D. Tang, Roberto Perez, Sergio Cerdeira, Nelson Melo, Jose Rafael Diaz, Paola Filippi, Denis Nadeau.

Technicians: Gabriel Quiles, Brock Murch, Judd Taylor, Michelle McIntyre, Richard Bohrer, Remy Luerssen, Christine Kranenburg, Haiying Zhang, Laura Lorenzoni, Christian Schiller, Damaris Torres, Zhiquiang Chen, MingRui Zhang, Wensheng Yao.

XII. Publications and Manuscripts:

1. Articles of which FMK is a senior author:

Muller-Karger, Frank., Kent Fanning , Albert Hine , William Hogarth. 2011 (accepted). The College of Marine Science at the University of South Florida. Gulf of Mexico Science.

Muller-Karger, Frank. E., R. Varela, R. C. Thunell, M. I. Scranton, G. T. Taylor, Y. Astor, C. R. Benitez-Nelson, L. Lorenzoni, E. Tappa, M. A. Goñi, D. Rueda, and C. Hu. 2010. The CARIACO Oceanographic Time Series. In: Carbon and Nutrient Fluxes in Continental Margins: A Global Synthesis. JGOFS Continental Margins Task Team (CMTT). Editors: Kon-kee Liu, Larry Atkinson, Renato Quinones, Liana Talaue-McManus. Springer-Verlag, Berlin/Heidelberg.

Muller-Karger, Frank. 2009. Op-Ed. Stop drift in oceans policy, Special to the Times. St. Petersburg Times. Wednesday, October 14, 2009.

Muller-Karger, F. E. 2006. Top Goal: Protect ocean ecosystem. Op-Ed. Daytona Beach News Journal. June 18, 2006.

Muller-Karger, F. E. 2006. An SOS for our oceans. Op-Ed. Sarasota Herald Tribune. March 22, 2006.

Muller-Karger, Frank E., Ramon Varela, Robert Thunell, Remy Luerssen, Chuanmin Hu, and John J. Walsh. 2005. The importance of continental margins in the global carbon cycle. Geophysical Research Letters, Vol. 32, L01602, doi:10.1029/2004GL021346, 2005.

Muller-Karger, F. E., C. Hu, S. Andréfouët, and R. Varela. 2005. The Color of the Coastal Ocean and applications in the solution of research and management problems. In: Remote Sensing of Coastal Aquatic Environments: Technologies, Techniques and Application, R.L. Miller, C.E. Del Castillo and B.A. McKee [Eds.], Springer, 101-127.

Muller-Karger, F. E. 2005. Mend the links between our agencies. Op-Ed. Sarasota Herald Tribune. 18 September, 2005.

Muller-Karger, F., R. Varela, R. Thunell, M. Scranton, G. Taylor, J. Capelo, Y. Astor, E. Tappa, J. Akl, and T.-Y. Ho. 2004 (published 2005). Características de la fosa de Cariaco y su importancia desde el punto de vista oceanográfico. Memoria de la Fundación La Salle de Ciencias Naturales. 161-162: 215-234.

Muller-Karger, F. E. 2004. Our oceans are in deep trouble; but it's not too late. Op-Ed. St. Petersburg Times. 8 September 2004.

Muller-Karger, F. E., R. Varela, R. Thunell, Y. Astor, H. Zhang, and C. Hu. 2004. Processes of Coastal Upwelling and Carbon Flux in the Cariaco Basin. Deep-Sea Research II. Special Issue: Views of Ocean Processes from the Sea-viewing Wide Field-of-view Sensor (SeaWiFS)

- Mission: Volume 2 - Edited by D. A. Siegel, A. C. Thomas and J. Marra. Vol 51/10-11 pp 927-943.
- Muller-Karger, F. E. 2002. Climate effects on the Gulf of Mexico ecosystem. In: A Sustainable Gulf of Mexico: Research, Technology, and Observations 1950 to 2050. Sustainable Coastal Margins Program. Texas A&M University. Conference Proceedings. M. Kennicutt II, Chair. College Station, TX. February 19-21, 2002.
- Muller-Karger, F. E. 2002. Protecting our oceans, the next frontier. Colloquium Views. University of South Florida Forum Magazine. March 18-April 14, 2002. Page 6.
- Muller-Karger, F. E. 2002. Participation needed to manage marine resources. Op-Ed. St. Petersburg Times. 19 February 2002.
- Muller-Karger, F. E. 2002. U.S. Commission on Ocean Policy: An Update. Eos, Transactions AGU. Vol 83. No. 3. p. 22.
- Muller-Karger, F. E., R. Varela, R. Thunell, M. Scranton, R. Bohrer, G. Taylor, J. Capelo, Y. Astor, E. Tappa, T. Y. Ho, and J. J. Walsh. 2001. Annual Cycle of Primary Production in the Cariaco Basin: Response to upwelling and implications for vertical export. *Journal of Geophysical Research*. 106:C3. 4527-4542.
- Muller-Karger, F., R. Varela, R. Thunell, M. Scranton, R. Bohrer, G. Taylor, J. Capelo, Y. Astor, E. Tappa, T.-Y. Ho, M. Iabichella, J. J. Walsh, and J. R. Diaz. 2000. The CARIACO Project: Understanding the Link between the Ocean Surface and the Sinking Flux of Particulate Carbon in the Cariaco Basin. *EOS. AGU Transactions*. Vol. 81. No. 45. pages 529, 534, 535.
- Müller-Karger, F. E., and C. Fuentes-Yaco. 2000. Characteristics of Wind-Generated Rings in the eastern tropical Pacific Ocean. *Journal of Geophysical Research*. Vol 105. C1. 1271-1284.
- Muller-Karger, F. E. 2000. The Spring 1998 NEGOM Cold Water Event: Remote Sensing Evidence for Upwelling and for Eastward Advection of Mississippi Water (or: How an Errant LC Anticyclone Took the NEGOM for a Spin). *Gulf of Mexico Science*. 1. 55-67.
- Muller-Karger, F. E. 2000. Where Is the Hispanic Scientist? Punto Final. *Hispanic Outlook In Higher Education*. January 2000 issue.
- Muller-Karger, F. E. 2000. SMP workshop looks at role of continental margins in ocean carbon cycle. In: U.S. JGOFS Newsletter. Volume 10. Number 4. August 2000. U.S. JGOFS Planning Office at Woods Hole Oceanographic Institution. p. 4-6.
- Muller-Karger, F. E., F. Vukovich, R. Leben, B. Nababan and D. Myhre. 1998. Northeastern Gulf of Mexico Physical Oceanography Program: Eddy Monitoring and Remote Sensing. Technical Report of the U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region. Technical report MMS 98-0051. 41 pages.
- Muller-Karger, F. E., P. L. Richardson, and D. McGillicuddy. 1995. On the offshore dispersal of the Amazon's Plume in the North Atlantic. *Deep-Sea Research I*, Vol. 42, No. 11/12, 2127-2137.
- Muller-Karger, F. E., and R. Aparicio. 1994. Mesoscale Processes Affecting Phytoplankton Abundance in the Southern Caribbean Sea. *Continental Shelf Research*. Continental Shelf Research. (14:2/3). 199-221.
- Muller-Karger, F. E. 1993. River discharge variability including satellite-observed plume-dispersal patterns. In: *Climate Change in the Intra-Americas Sea*. George Maul (editor). United Nations Environmental Programme (Wider Caribbean Region) and Intergovernmental Oceanographic Commissions (Caribbean and Adjacent Regions). Edward Arnold Publishers. Chapter 8. Pages 162-192.
- Muller-Karger, F. E. 1992. Remote Sensing of Marine Pollution: A Challenge for the 1990s. *Marine Pollution Bulletin*. Volume 25, 1-4. 54-60.
- Müller-Karger, F. E., J. J. Walsh, R. H. Evans, and M. B. Meyers. 1991. On the Seasonal Phytoplankton Concentration and Sea Surface Temperature Cycles of the Gulf of Mexico as Determined by Satellites. *Journal of Geophysical Research*. 96(C7). 12645-12665.
- Muller-Karger, F. E., and R. Varela. 1990. Influjo del Rio Orinoco en el Mar Caribe: observaciones con el CZCS desde el espacio. *Memoria. Sociedad de Ciencias Naturales La Salle*. Caracas, Venezuela. Tomo II, numero 131-132; Tomo L, numero 133-134. 361-390.
- Muller-Karger, F. E., C. R. McClain, R. N. Sambrotto, and C. G. Ray. 1990. Measurements of phytoplankton distribution in the southeastern Bering Sea using the CZCS: A note of caution. *J. Geophys. Research*. 95, C7. 11,483-11,499.

- Muller-Karger, F. E., C. R. McClain, T. R. Fisher, W. E. Esaias, and R. Varela. 1989. Pigment distribution in the Caribbean Sea: Observations from Space. *Progress in Oceanography*. 23. 23-69.
- Muller-Karger, F. E., C. R. McClain, and P. L. Richardson. 1988. The dispersal of the Amazon's water. *Nature*. 333. 56-59.
- Muller-Karger, F. E., and R. J. Varela. 1988. Variabilidad de la biomasa de fitoplancton en aguas superficiales del Mar Caribe: Una perspectiva desde el espacio con el CZCS. *Memoria. Soc. Ciencias Naturales La Salle*. Vol XLVIII. Supplement No. 3. 179-201.
- Muller-Karger, F. E. 1988. Pigment Variability in the Caribbean Sea: A study using the Coastal Zone Color Scanner. PhD. Dissertation. Horn Point Environmental Laboratories. University of Maryland. 218 pp.
- Muller-Karger, F.E., and V. Alexander. 1987. Nitrogen Dynamics in a Marginal Sea-Ice Zone. *Continental Shelf Research*, Vol 7. 805-823.
- Muller-Karger, F. E., C. R. McClain, and G. C. Ray. 1987. Primary Productivity. Chapter in the *Strategic Atlas of Economic Resources of the Bering Sea*. NOAA Strategic Assessment Branch, Rockville, MD.
- Muller-Karger, F. E. 1984. Lower Trophic Level Studies in the Marginal Sea Ice Zone. MS Thesis, University of Alaska, Fairbanks. 145 p.

2. Articles published as co-author:

- Abbott, M. R., O. B. Brown, R. H. Evans, H. R. Gordon, K. L. Carder, F. E. Muller-Karger, and W. E. Esaias. 1994. Ocean Color in the 21st Century: A Strategy for a 20-Year Time Series. *SeaWiFS Technical Report Series*. NASA Technical Memorandum 104566; Vol. 17. 20 pp.
- Allain, Valérie, Julie-Anne Kerandel, Serge Andréfouët, Franck Magron, Malcolm Clark, David S. Kirby and Frank E. Muller-Karger. 2008. Enhanced seamount location database for the western and central Pacific Ocean: Screening and cross-checking of 20 existing datasets, *Deep-Sea Research I*, doi:10.1016/j.dsr.2008.04.004.
- Andréfouët, S., F. E. Muller-Karger, J.A. Robinson, C. J. Kranenburg, D. Torres-Pulliza, S. Spraggins, B. Murch. 2005. Global assessment of modern coral reef extent and diversity for regional science and management applications: A view from space. *Proceedings of the 10th International Coral Reef Symposium*. 28 June-2 July 2004. Okinawa, Japan.
- Andréfouët, S., Hochberg, E., C. Cheillon, F. E. Muller-Karger, J. C. Brock, and C. Hu. 2005. Multi-scale Remote Sensing of Coral Reefs. *In: Remote Sensing of Coastal Aquatic Environments: Technologies, Techniques and Application*, R.L. Miller, C.E. Del Castillo and B.A. McKee [Eds.], Springer, 297-315.
- Andréfouët, Serge, Claude Payri, Eric J. Hochberg, Chuanmin Hu, Marlin J. Atkinson, Frank E. Muller-Karger. 2004. Use of in situ and airborne reflectance for scaling-up spectral discrimination of coral reef macroalgae from species to communities. *Marine Ecology Progress Series*. Vol. 283: 161–177, 2004.
- Andréfouët S., Kramer, P., Torres-Pulliza, D., Joyce, K. E., Hochberg, E. J., Garza-Perez, R., Mumby, P. J., Riegl, B., Yamano, H., White, W. H., Zubia, M., Brock, J. C., Phinn, S. R., & Muller-Karger, F. E.. 2003. Multi-sites evaluation of IKONOS data for classification of tropical coral reef environments. *Remote Sensing of Environment*. 88:128-143.
- Andréfouët S., E. J. Hochberg, C. Payri, M.J. Atkinson, F.E. Muller-Karger, H. Ripley. 2003. Multi-scale remote sensing of microbial mats in atolls environment *International Journal of Remote Sensing (Special issue: Remote Sensing of the Coastal Marine Environment)* 24(13): 2661-2682
- Andréfouët S., Robinson, J., Hu, C., Feldman, G., Salvat, B., Payri, C., FE Muller-Karger 2003, Influence of the spatial resolution of SeaWiFS, Landsat 7, SPOT and International Space Station data on determination of landscape parameters of Pacific Ocean atolls *Canadian Journal of remote sensing*. Special issue on "Synergistic Utilisation of Landsat 7", 29(2):210-218
- Andréfouët, S., P. J. Mumby, M. McField, C. Hu, F. E. Muller-Karger. 2002. Revisiting coral reef connectivity. *Coral Reefs*. 21:43-48.

- Andréfouët S., R. Berkelmans, L. Odriozola, T. J. Done, J. K. Oliver, F. E. Muller-Karger. 2002. Choosing the appropriate spatial resolution for monitoring coral bleaching events using remote sensing. *Coral Reefs*. 21:147-154.
- Andréfouët, Serge, Frank E. Muller-Karger, Eric J. Hochberg, Chuanmin Hu and Kendall L. Carder. 2001. Change detection in shallow coral reef environments using Landsat 7 ETM+ data, *Remote Sensing of Environment*, Volume 78, Issues 1-2, October 2001, Pages 150-162
- Arvidson, T., J. Gash, S. Goward, S. Andréfouët, C. Hu, and F. Muller-Karger. 1999. Long-Term Acquisition Plan of Landsat-7. *Earth System Monitor*. NOAA. US. Department of Commerce. Vol 10, No. 2. p. 6-7.
- Astor, Y., F. Muller-Karger, R. Bohrer, L. Troccoli and J. Garcia. 2005. "*Variabilidad estacional e interanual del carbono inorganico disuelto y nutrientes en la Fosa de Cariaco*" (fCO₂ variability at the CARIACO tropical coastal upwelling time series station). *Memoria de la Fundacion la Salle de Ciencias Naturales*. Volume 161-162: 235-252.
- Astor, Y. M., M.I. Scranton, F. Muller-Karger, R. Bohrer, and J. García. 2005. Seasonal and interannual fCO₂ variability in a tropical coastal upwelling system. *Marine Chemistry*. 97 (3-4): 245-261.
- Astor, Y., F. Muller-Karger, and M. I. Scranton. 2003. Seasonal and Interannual Variation in the Hydrography of the Cariaco Basin: Implications for Basin Ventilation. *Continental Shelf Research*. Vol. 23. No. 1. 125-144.
- Astor, Y.; J. Meri and F. Muller-Karger. 1998. Variabilidad estacional hidrográfica en la Fosa de Cariaco. *Mem. Soc. de Cienc. Nat. La Salle*. Vol LVIII (149). 61-72.
- Banase, K., C. R. McClain, W. E. Esaias, and F. Muller-Karger. 1987. Satellite-observed winter blooms of phytoplankton in the Arabian Sea. In: *International Conference on Marine Biology of the Indian Ocean, 1986*. (M. F. Thompson and N. M. Tirmizi). Am. Inst. Biol. Sci., Washington, DC.
- Barnes, Brian B., Chuanmin Hu, and Frank Muller-Karger. 2011 (Accepted Jan 2011). An improved high-resolution SST climatology to assess cold water events off Florida. *Geoscience and Remote Sensing Letters*.
- Biggs, Douglas C., Chuanmin Hu, and Frank E. Muller-Karger. 2008. Remotely sensed sea surface chlorophyll and calculated POC flux at Deep Gulf of Mexico Benthos sampling stations. *Topical issue on DGoMB program. Deep-Sea Research II*. 55. 2555–2562.
- Biggs, Douglas C., Ann E. Jochens, Matthew K. Howard, Steven F. DiMarco, Keith D. Mullin, Robert R. Leben, Frank E. Muller-Karger, and Chuanmin Hu. 2005. Eddy Forced Variations in On- and Off-Margin Summertime Circulation Along the 1000-m Isobath of the Northern Gulf of Mexico, 2000-2003, and Links with Sperm Whale Distributions Along the Middle Shelf. In: *New Developments in the Circulation of the Gulf of Mexico*, W. Sturges and A. Lugo-Fernandez, Editors. AGU Geophysical Monograph Series 161. pages 71-86.
- Biggs, D. C., and F. E. Muller-Karger. 1993. Ship and satellite observations of chlorophyll stocks in warm- and cold-core rings in the western Gulf of Mexico. *J. Geophys. Res.* (99:C4). 7,371-7,384.
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