

FRANK EDGAR MULLER -KARGER  
CURRICULUM VITAE

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Work Address

University of South Florida

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I. Personal Information :

Ancestry: Hispanic  
Employer: University of South Florida, College of Marine Science  
140 7<sup>th</sup> 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 7<sup>th</sup> 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





- NSF (2012-2019) Partnerships in International Research and Education (PIRE): Context Sensitive Implementation of Synergistic Water-Energy Systems. PI. James Mihelcic (USF), FMK co-I.
- 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.
- NSF (2010-2012) EAR-1043323 CCEP: Coastal Areas Climate Change Education (CACCE) Partnership. PI: Jeff Ryan (USF Geology). FMK co-I.
- NASA/NOAA (2019-2022) South Florida MarineBiodiversity Observation Network (MBON). FMK PI, co-I: Enrique Montes (USF), Steve Gittings (National Marine Sanctuaries Office), Maria Kavanaugh (Oregon State University).
- NASA/NOAA (2014-2019) -



Organizer, NASA Small Satellite Technology Initiative, NASA Remotely-Piloted Vehicle workshop.  
Member, OceanObs'19 Program Committee  
Member, Ocean Best Practices Working Group, Intergovernmental Oceanographic Commission  
Member, GOOS Bio-Eco Panel, Intergovernmental Oceanographic Commission  
Member, IGMETS, Intergovernmental Oceanographic Commission  
Member, NASA PACE Science Definition Team  
Member, NASA Ocean Biology and Biogeochemistry Strategic Planning Working Group  
Member, NASA Biodiversity and Ecological Forecasting Strategic Planning Group  
Member, SeaWiFS Science Team  
Member, Landsat-7/ETM+ 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 Boletín Oceanográfico 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, IAI

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 40 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 ( $^{14}\text{C}$  and  $^{15}\text{N}$  isotopes)  
Computer systems and basic network management  
Satellite and ground-based remote sensing (VIS, IR)

XI. S

Montes, Ana Lucia Odriozola.

- \*Canonico, Gabrielle; Pier Luigi Buttigieg, Enrique Montes, Carol A, Stepien, Dawn Wright, Abigail Benson, Brian Helmuth, Mark John Costello, Frank Edgar Muller-Karger, Isabel Sousa Pinto, Hanieh Saeedi, Jan A Newton, Ward Appeltans, Nina Bednaršek, Levente Bodrossy, Benjamin Dale Best, Angelika Brandt, Kelly Goodwin, Katrin Iken, Antonio Marques, Patricia Miloslavich, Martin Ostrowski, Woody Turner, Eric 'Pieter Achterberg, Tom Barry, Omar Defeo, Gregorio Bigatti, Lea-Anne Henry, Berta Ramiro Sanchez, Pablo Durán Muñoz, MARIA MAR SACAU CUADRADO, Telmo Morato, Murray Roberts, Ana Garraida Garcia-Alegre and Bramley J. Murton. 2019. Global Observational Needs and Resources for Marine Biodiversity. *Frontiers in Marine Science*. <https://doi.org/10.3389/fmars.2019.00367>
- \*Duffy, J. Emmett, Lisandro Benedetti-Cecchi, Joaquin A. Trinanes, Frank Edgar Muller-Karger, Rohani Ambo-Rappe, Christoffer Boström, Alejandro H. Buschmann, Jarrett Byrnes, Robert G Coles, Joel Creed, Leanne Cullen-Unsworth, Guillermo Diaz-Pulido, Carlos M. Duarte, Graham J. Edgar, Miguel Dino Fortes, Gustavo Jorge Goni, Chuanmin Hu, Xiaoping Huang,

(2019). Water temperature, salinity, and other parameters from CTD taken from the research vessel Hermano Gines at the CARIACO Ocean Time-Series location in the Southeastern Caribbean Sea (Cariaco Basin) from 1995-11-08 to 2017-01-17 (NCEI Accession 0189595). [indicate subset used]. NOAA National Centers for Environmental Information. Dataset. <https://accession.nodc.noaa.gov/0189595>.

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Pereira, Valerie Allain, Sonia Batten, Lisandro Benedetti-Checchi, J. Emmett Duffy, Raphael Kudela, Lisa-Maria Rebelo, Yunne Shin, Gary Geller. 2018. Advancing Marine Biological Observations and Data Requirements of the Complementary Essential Ocean Variables (EOVs) and Essential Biodiversity Variables (EBVs) Frameworks. *Frontiers in Marine Science*. <https://doi.org/10.3389/fmars.2018.00211>

\*Navarro, Dr Laetitia, Dr Sheila Vergara, Dr Haigen Xu, Dr Mark Costello, Dr Tuyeni Heita Mwampamba, Dr Emily Nicholson, Miss HyeJin Kim, Dr Carlos Guerra, Dr Petteri Vihervaara, Dr Robert Guralnick, Dr Eren Turak, Dr Ilse Geijzendorffer, Dr Maria Cecilia Londoño, Dr Gary 4 (hi)1.4 (n,)3.5 ( )0.31.4 (n,W8.3 (f)3.6gQLon)6.1ndoBertv

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<http://dx.doi.org/10.1016/j.rse.2015.05.002>
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and euphotic depths in south Florida coastal waters. *Remote Sensing of Environment*.  
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2012

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#### 1996

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\*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.

1989

\*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.

\*Walsh, J.J., C.P. McRoy, L.K. Coachman, J.J. Goering, J.J. Nihoul, T.E. Whitledge, T.H. Blackburn,