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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:

2023 Distinguished University Professor. University of South Florida
Employer: University of South Florida
140 7th Ave. S., St. Petersburg, FL 33701

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

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 Headquarters/Jet Propulsion Lab-California Institute of Technology.
Employer: CA Institute of Technology, NASA JPL and NASA HQ

1989/94 Assistant Professor. Department of Marine Science, USF

1988/89 Research Associate, Department of Marine Science, USF (with *Dr. John J. Walsh*)
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. Students and trainees while at USF:

Doctoral – Major Professor:

Graduated: Savannah Hartman (USA), Cara Estes (USA), Matthew McCarthy (USA), Abdiel Laureano-Rosario (USA/Puerto Rico), Maria Vega-Rodríguez (USA/Puerto Rico), Sennai Habtes (USA/Virgin Islands), Karen Langbehn (USA; USF English), Laura Lorenzoni (USA; Venezuela), Inia Soto (USA/Puerto Rico), Digna Rueda (Venezuela), Enrique Montes (Venezuela), David Palandro (USA), Bisman Nababan (Indonesia), Fernando Gilbes (USA/Puerto Rico), Lisa Vanderbloemen (USA), Zhiqiang Chen (China). Non-USF/ Doctoral/Co-Major Professor: Joe Salisbury (University of New Hampshire), Sergio Cerdeira (Universidad de la Habana).

Current: Mostafa Awad Soliman (Egypt), Claudia Baron Aguilar (Colombia), Luis Lizcano Sandoval (Colombia), Rosanyely Santana (USA).

Masters – Major Professor:

Graduated: Megan Hepner (USA), Kaitlyn Colna (USA), Brendan O'Connor (USA), Claudia Baron Aguilar (Colombia), Juan Carlos Millan (Colombia), Herschel T. Hochman (USA), Josh Henson (USA), Inia Soto (USA/Puerto Rico), Laura Lorenzoni (Venezuela), Carrie Wall (USA), Enrique Montes (Venezuela), Ana Lucia Odriozola (Venezuela). Masters/ Co-Major Professor: MingRui Zhang (China), Wensheng Yao (China), Jingwei Ke (China), Haiying Zhang (China).

Current: Sebastian DiGeronimo (USA), Chelsea Bryant (USA).

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

Post-doctoral Associates: Laura Lorenzoni, Daniel Otis, Enrique Montes, Digna Rueda-Roa, Tylar Murray, Matt McCarthy, Gerardo Toro-Farmer, 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): Raoni Bosquilia, Samira Bosquilia, Mahmoud Elmezayen, Mostafa Awad, Mostafa Al-Maghraby, Ezequiel Cozzolino, Paul W. Bissett, Lingzis D. Tang, Roberto Perez, Sergio Cerdeira, Nelson Melo, Jose Rafael Diaz, Paola Filippi, Denis Nadeau, David Lindo-Atichati.

Technicians: Tylar Murray, Sebastian DiGeronimo, Catherine J. Reynolds, Qiao, Robert Chen, C. J. Reynolds, Gabriel Quiles, Brock Murch, Judd Taylor, Michelle McIntyre, Richard Bohrer, Remy Luerssen, Christine Kranenburg, Haiying Zhang, Laura Lorenzoni, Christian Schiller, Damaris Torres, Zhiqiang Chen, MingRui Zhang, Wensheng Yao.

V. Publications: (peer-reviewed)

Google Scholar Profile: [Frank Muller-Karger - Google Scholar](https://scholar.google.com/citations?user=-EhNbmAAAAJ)
(<https://scholar.google.com/citations?user=-EhNbmAAAAJ>)

2024

Lønborg, C., Carreira, C., Abril, G., Agustí, S., Amaral, V., Andersson, A., Aristegui, J., Bhadury, P., Bif, M. B., Borges, A. V., Bouillon, S., Calleja, M. Ll., Cotovicz Jr., L. C., Cozzi, S., Doval, M., Duarte, C. M., Eyre, B., Fichot, C. G., García-Martín, E. E., Garzon-Garcia, A., Giani, M., Gonçalves-Araujo, R., Gruber, R., Hansell, D. A., Hashihama, F., He, D., Holding, J. M., Hunter, W. R., Ibánhez, J. S. P., Ibello, V., Jiang, S., Kim, G., Klun, K., Kowalczyk, P., Kubo, A., Lee, C.-W., Lopes, C. B., Maggioni, F., Magni, P., Marrase, C., Martin, P., McCallister, S. L., McCallum, R., Medeiros, P. M., Morán, X. A. G., Muller-Karger, F. E., Myers-Pigg, A., Norli, M., Oakes, J. M., Osterholz, H., Park, H., Lund Paulsen, M., Rosentreter, J. A., Ross, J.

D., Rueda-Roa, D., Santinelli, C., Shen, Y., Teira, E., Tinta, T., Uher, G., Wakita, M., Ward, N., Watanabe, K., Xin, Y., Yamashita, Y., Yang, L., Yeo, J., Yuan, H., Zheng, Q., and Álvarez-Salgado, X. A.: A global database of dissolved organic matter (DOM) concentration measurements in coastal waters (CoastDOM v1), *Earth Syst. Sci. Data*, 16, 1107–1119, <https://doi.org/10.5194/essd-16-1107-2024>, 2024.

Lange, Nico, et al., 2024 (in press). Synthesis Product for Ocean Time-Series (SPOTS) – A ship-based biogeochemical pilot. *ESSD. Copernicus*.

Morales-Medina, Maité; Ana P. Ortiz-Martínez; Cynthia M. Pérez-Cardona; Digna Rueda-Roa; Daniel Otis; Edgar Pérez-Matías; Frank Muller-Karger; Olga Mayol-Bracero; Pablo Méndez-Lázaro. 2024 (in press). Who is Affected by Saharan Dust in the Caribbean: A spatial analysis and citizen's perspective from Puerto Rico during Godzilla Dust Event in June 2020. *WCAS/ American Meteorological Society (AMS)*.

2023

Astor, Yrene M., Laura Lorenzoni, Digna Rueda-Roa, and Frank Muller-Karger. 2023. Vertical Structure and trends in CO₂ at the CARIACO Ocean Time Series Station: 1995-2017. *Memoria de la Fundación La Salle de Ciencias Naturales*. 81(191): 91-110. <https://doi.org/10.5281/zenodo.10115892>

Gonzalez, A., Vihervaara, P., Balvanera, P. et al. 2023. A global biodiversity observing system to unite monitoring and guide action. *Nat Ecol Evol*. <https://doi.org/10.1038/s41559-023-02171-0>.

Halpern, Benjamin S., Boettiger, Carl, Dietze, Michael C., Gephart, Jessica A., Gonzalez, Patrick, Grimm, Nancy B., Groffman, Peter M., et al. 2023. "Priorities for Synthesis Research in Ecology and Environmental Science." *Ecosphere* 14(1): e4342. <https://doi.org/10.1002/ecs2.4342>

Louca, S., Taylor, G.T., Astor, Y.M., Buck, K.N. & Muller-Karger, F.E. (2023) Transport-limited reactions in microbial systems. *Environmental Microbiology*, 25(2), 268– 282. Available from: <https://doi.org/10.1111/1462-2920.16275>.

Christian Lønborg et al. 2023. A global database of dissolved organic matter (DOM) concentration measurements in coastal waters (CoastDOM v1). *Earth System Science Data (ESSD)*.

Meyer, Raïssa; Neil Davies; Kathleen J Pitz; Chris Meyer; Robyn Samuel; Jane Hudson; Ward Appeltans; Katharine Barker; Francisco Chavez; J. Emmett Duffy; Kelly D. Goodwin; Maui Hudson; Margaret E. Hunter; Johannes Karstensen; Christine Laney; Margaret Leinen; Paula Mabee; James A. Macklin; Frank Muller-Karger; Nicolas Pade; Jay Pearlman; Lori Phillips; Pieter Provoost; Ioulia Santi; Dmitry Schigel; Lynn M. Schriml; Alice Soccodato; Saara Suominen; Kate Thibault; Visotheary Ung; Jodie van de Kamp; Elycia Wallis; Ramona Walls; Pier Luigi Buttigieg. 2023 (In Press). The founding charter of the Omic Biodiversity Observation Network. (Omic BON). *GigaScience*. <https://doi.org/10.1093/gigascience/giad068>.

Rosellón-Druker, Judith., et. al., 2023. Local ecological knowledge and perception of the causes, impacts and effects of Sargassum massive influxes: a binational approach. *Ecosystems and People*. <https://doi.org/10.1080/26395916.2023.2253317>

Simpson, P., Muller-Karger, F., Van Ruth, P. and Pearlman, J. (eds) (2023) *OceanPractices: Ocean Best Practices Workshop VI, 05 -19 October 2022 [Online]*: Proceedings. Paris, France, UNESCO, 104pp. DOI: <http://dx.doi.org/10.25607/OBP-190>.

2022

Balladares, Clemente, Digna Rueda-Roa, Diego Rodríguez, Frank Muller-Karger, Héctor Barrios-Garrido. 2022. Seasonal factors affecting sea turtle nesting in the Southeastern Caribbean Sea (Gulf of Paria, Venezuela). *Ocean and Coastal Research*. <http://doi.org/10.1590/2675-2824070.22049cb>. <https://old.scielo.br/pdf/ocr/v70/2675-2824-ocr-70-e22032.pdf>.

Boss, Emmanuel, Anya Mary Waite, Johannes Karstensen, Tom Trull, Frank Edgar Muller-Karger, Heidi M Sosik, Julia Uitz, Silvia G. Acinas, Katja Fennel, Ilana Berman-Frank, Sandy Thomalla, Hidekatsu Yamazaki, Sonia Dawn Batten, Gerald J Gregori, Anthony J. Richardson, Rik Wanninkhof. 2022. Recommendations for plankton measurements on OceanSITES moorings with relevance to other observing sites. *Frontiers in Marine Science*, section Ocean Observation. <https://doi.org/10.3389/fmars.2022.929436>

Canonico, Gabrielle; J. Emmett Duffy; Frank E. Muller-Karger. 2022. Marine Life 2030: Building Global Knowledge of Marine Life for Local Action in the Ocean Decade. *Marine Technology Society Journal*. DOI: 10.4031/MTSJ.56.3.15.

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- McCarthy, Matthew J., Daniel B. Otis, David Hughes, Frank E. Muller-Karger. 2022. Automated high-resolution satellite-derived coastal bathymetry mapping. *International Journal of Applied Earth Observation and Geoinformation*. Volume 107. 102693. <https://doi.org/10.1016/j.jag.2022.102693>
- Miloslavich, Patricia, Rebecca Zitoun, Edward R. Urban Jr., Frank Muller-Karger, Nicholas J. Bax, Brian K. Arbic, Ana Lara-López, Cláudia Delgado, Marc Metian, Sophie Seeyave, Peter W. Swarzenski, Jacqueline Uku & Alexis Valauri-Orton. 2022. Developing Capacity for Ocean Science and Technology. In: Urban Jr., E.R., Ittekkot, V. (eds) *Blue Economy*. Springer, Singapore. https://doi.org/10.1007/978-981-19-5065-0_15.
- Muller-Karger, F., E. Bhatt, and E. Meyer-Gutbrod. 2022. Broadening participation in TOS through honors nominations and awards. *Oceanography* 35(2):4–5, <https://doi.org/10.5670/oceanog.2022.216>.
- Muller-Karger, Frank E., Canonico, Gabrielle, Baron Aguilar, Claudia, Bax, Nicholas J., Appeltans, Ward, Yarincik, Kristen, Leopardas, Venus, Sousa-Pinto, Isabel, Nakaoka, Masahiro, Giddens, Jonatha, Heslop, Emma, Montes, Enrique, Duffy, J. Emmett. 2022. Marine Life 2030: Building global knowledge of marine life for local action in the Ocean Decade. *ICES Journal of Marine Science*. DOI: 10.1093/icesjms/fsac084.
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- Priede, Imants G., Frank Edgar Muller-Karger, Tomasz Niedzielski, Andrey V Gebruk, Daniel O B Jones, Ana Colaço. 2022. Drivers of Biomass and Biodiversity of Non-chemosynthetic Benthic Fauna of the Mid-Atlantic Ridge in the North Atlantic. *Frontiers in Marine Science*. <https://doi.org/10.3389/fmars.2022.866654>
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J. W., Canuti, E., Chavez, F. P., Cianca, A., Claustre, H., Clementson, L., Crout, R., Ferreira, A., Freeman, S., Frouin, R., García-Soto, C., Gibb, S. W., Goericke, R., Gould, R., Guillocheau, N., Hooker, S. B., Hu, C., Kahru, M., Kampel, M., Klein, H., Kratzer, S., Kudela, R., Ledesma, J., Lohrenz, S., Loisel, H., Mannino, A., Martinez-Vicente, V., Matrai, P., McKee, D., Mitchell, B. G., Moisan, T., Montes, E., Muller-Karger, F., Neeley, A., Novak, M., O'Dowd, L., Ondrusek, M., Platt, T., Poulton, A. J., Repecaud, M., Röttgers, R., Schroeder, T., Smyth, T., Smythe-Wright, D., Sosik, H. M., Thomas, C., Thomas, R., Tilstone, G., Tracana, A., Twardowski, M., Vellucci, V., Voss, K., Werdell, J., Wernand, M., Wojtasiewicz, B., Wright, S., and Zibordi, G. 2022. A compilation of global bio-optical in situ data for ocean colour satellite applications – version three, *Earth Syst. Sci. Data*, 14, 5737–5770, <https://doi.org/10.5194/essd-14-5737-2022>, 2022.

2021

- Benson, Abigail, Tylar Murray, Gabrielle Canonico, Enrique Montes, Frank Muller-Karger, Maria T. Kavanaugh, Joaquin Trinanes, and Lynn M. deWitt. 2021. Data Management and Interactive Visualizations for the Evolving Marine Biodiversity Observation Network. Special Issue on the Marine Biodiversity Observation Network: An Observing System for Life in the Sea. *Oceanography*. Vol 34, No. 2. <https://doi.org/10.5670/oceanog.2021.220>
- Bosquilia, R. W. D., Neale, C. M. U., Duarte, S. N., Ferraz, S. F. B., Barros, P. P. S., & Muller-Karger, F. E. 2021. Validation of a Hybrid Evapotranspiration Model Using Satellite Imagery and Precipitation-Flow Data. *IRRIGA*, 26(3), 460–475. <https://doi.org/10.15809/irriga.2021v26n3p460-475>
- Bosquilia, Raoni W.D., and Frank E. Muller-Karger. 2021. Analysis of the wetland classification using optical satellite imagery in the environmental protection area of Guaraqueçaba, PR, Brazil. *Journal of South American Earth Sciences*. <https://doi.org/10.1016/j.jsames.2021.103615>.
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- 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.

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- Cerdeira E., S., N. Melo Gonzalez, R. Perez de los Reyes, I. Victoria del Rio, and F. E. Muller-Karger. 1997. La densidad de pigmentos fotosintéticos: un indicador del carácter y la intensidad de los procesos oceanográficos en el occidente del Gran Caribe ("Photosynthetic pigments: an indicator of character and intensity of oceanographic processes in regions of the Intra-american Seas"). Boletín de la Sociedad Meteorológica de Cuba (SOMETCUBA). ISSN 1025-921X.

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- Zhang, M., L. O. Hall, D. B. Goldgof, and F. E. Muller-Karger. 1997. Fuzzy Analysis of Satellite Images to Find Phytoplankton Blooms. *IEEE International Conference on Systems, Man, and Cybernetics*. Orlando, Florida, October 12-15, 1997.

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- Santamaría-del-Angel E., S. Alvarez-Borrego y F.E. Muller-Karger. 1995. Regiones Biogeográficas del Golfo de California basadas en las imágenes del Coastal Zone Color Scanner. pags. 63-84 en *Temas de Oceanografía Biológica en México*. González-Farías F. y J. De -la-Rosa (eds). Ed. SEP-UABC Mexicali 288 p.

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- 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.
- 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.

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- Banse, 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.
- Carton, J. A., and F. Muller-Karger. 1987. Bibliography of the physical and biological oceanography of the tropical Atlantic Ocean. University of Maryland, College Park, Department of Meteorology. Report 87-26. 28 pp.
- 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.

VI. Professional Activity/Service: (2015-present)

University of South Florida

-President's Task Force: Values, Vision, Mission and Goals (2017-2018)

College of Marine Science:

-Dean's Advisory Council (2020-2022)

-Tenure and Promotion Committee (ongoing)

-Co-director, A.P. Sloan Foundation Univ. Center of Exemplary Mentoring (UCEM) (2012-2020)

-Faculty Mentor for Drs. Cam Ainsworth and Chris Stallings (2013-present)

The Oceanography Society (TOS), Justice, Equity, Diversity, and Inclusion Committee (2020-)

Intergovernmental Oceanographic Commission (IOC/UNESCO):

Ocean Best Practices System Steering Committee (2018-)

Global Ocean Observing System (GOOS) Bio-Eco Panel (2017-)

Integrated Marine Biosphere Research (IMBeR/SCOR) Scientific Steering Committee (2017/2020)

Co-Chair, Marine Biodiversity Observing Network (MBON), Group on Earth Observations (2016-)

Member, Implementation Committee, Group on Earth Observations Biodiversity Observing Network (GEO BON)(2016-)

Member, External Advisory Board to the Department of Biology, Ecology and Conservation of St.

George's University, Grenada (2020-)

Guest Editor, *Frontiers in Marine Science* (2017-)

OceanObs'19 (Decadal Conference) Program Committee (2017-2020)

Interamerican Institute for Global Change Research – Chair, Sci. Advisory Committee (2008-2016)

Board Trustee, The Northstar Learning Center, New Bedford, Massachusetts (2008/-)
Editorial Board, Memoria, Journal, Fundación La Salle de Ciencias Naturales de Venezuela (2000-)
Member, IGMETS, Intergovernmental Oceanographic Commission/UNESCO (2014-)
Member, NASA Ocean Biology and Biogeochemistry Strategic Planning Working Group (2015-2018)
Member, NASA Biodiversity and Ecological Forecasting Strategic Planning Group (2019-)

Ongoing:

Reviewer of scientific proposals and panel member for NASA, NOAA, NSF, Florida Space Grant Consortium, Environmental Protection Agency, ONR, NOPP
Reviewer of scientific proposals and organizer for the Interamerican Institute for Global Change (IAI) (2008-2016).
Reviewer of scientific manuscripts for En La Revista Ciencia e Ingeniería, La Universidad de La Guajira, ISSN 2389-9484
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 J. of the Institute of Marine Affairs, Trinidad & Tobago.
Reviewer of scientific manuscripts for the magazine Oceanography (The Oceanography Society).
Reviewer of scientific manuscripts for the Marine Technology Society.

VII. Research and sea-going experience:

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.

VIII. 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)

IX. 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

X. Professional Awards, Honors, and Scholarships:

2024	Fellow of The Oceanography Society (TOS)
2023	Distinguished University Professor, University of South Florida

- 2023 Earth Science Leader Award for 2023; 99th in ranking of best Earth Scientists in the US (<https://research.com/>)
- 2022 NOAA Ocean Exploration Advisory Board (OEAB; a Federal Advisory Committee, Appointed by the Under Secretary of Commerce for Oceans and Atmosphere & NOAA Administrator)
- 2021 William T. Pecora Award (Individual); NASA and USGS (Awarded 26 Oct. 2022)
- 2019 Best Paper Award for Interdisciplinary Applications. Lead Author: Dr. Chuanmin Hu. "Remote sensing estimation of surface oil volume during the 2010 Deepwater Horizon oil blowout in the Gulf of Mexico: scaling up AVIRIS observations with MODIS measurements". Journal of Applied Remote Sensing (JARS).
- 2019 AAAS Fellow; Council of the American Association for the Advancement of Science
- 2019 University of South Florida: Outstanding Faculty Award
- 2016 National Oceanographic Partnership Program 2016 Excellence in Partnering Award for leading the *National Marine Sanctuaries as Sentinel Sites for a Demonstration Marine Biodiversity Observation Network (MBON)*
- 2015 University of South Florida: Faculty Outstanding Research Achievement Award
- 2014 Group Achievement award: CARIACO Ocean Time Series Project selected as highlight for the Roger Revelle Memorial Lecture (Executive Council of the Intergovernmental Oceanographic Commission of UNESCO; 1 July 2014)
- 2013 Group Achievement Honor Award, NASA Ames Research Center
- 2013 Secondary Business Partner of the Year, Hillsborough County Public Schools
- 2011 Gulf Guardian Award, EPA Gulf of Mexico Program.
- 2008 "Most cited paper" mention, Continental Shelf Research, for 2005 Astor et al. paper
- 2006 USF Million Dollar Researcher President's award
- 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 .
- 2005 Julius A. Stratton Award for Leadership, awarded to members of the U.S. Commission on Ocean Policy (Coastal Zone 2005 meeting)
- 2004 Acknowledgement for service on the U.S. Commission on Ocean Policy by Senator E. Hollings. Congressional Record. Proceedings and Debates of the 108th 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
- 2001/2004 Commissioner, U.S. Commission on Ocean Policy, nominated and appointed by President George W. Bush

XI. Member:

AGU, ASLO, The Oceanography Society, AAAS, Fundación La Salle de Ciencias Naturales de Venezuela (FLASA; Founding Member)

XII. Grants and Contracts:

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

Funded Projects: (Not a complete list)

Active:

NASA (2022-2027) The Southeast US Marine Biodiversity Observation Network (MBON): Toward an Operational Marine Life Data for Conservation and Sustainability (An MBON Team Leader Proposal). PI: FMK. (Total budget: 1,949,997. FMK portion of budget: \$1,013,245)

NASA (2022-2024) Scientific applications and MODIS to VIIRS continuity of biogeographic seascape pelagic habitat classifications. PI: FMK. (Total budget: \$590,000. FMK portion of budget: \$295,390)

NASA (2019-2023) Coastal surface temperatures from ECOSTRESS. PI: Daniel Otis (Research Associate, FMK Lab).

NOAA (2022-2026) (RISA) Increasing the resiliency of frontline disadvantaged communities in island states in the wake of severe storms, extreme heat waves, and ecosystem service failures. PI: Pablo-Mendez Lazaro (US Department of Agriculture/Forestry, University of Puerto Rico). Co-I: FMK. (FMK portion of budget: 599,694)

NOAA (2022-2025) Climate Change Indicators Across the National Marine Sanctuaries System. PI: FMK. (FMK portion of budget: \$543,534)

NOAA (2022-2027) Maritime Transportation, Satellite Earth Observations, and Glider Deployments for the GCOOS-RA. PI: Chad Lembke. (FMK portion of budget: Approx. \$125,000)

TBEP (2023-2024) Tampa Bay Estuary Program: Seagrass Areal Cover Assessment in Tampa Bay (2020-2023) Using Satellite Imagery. FMK portion of budget/postdoc support: \$50,000)

NSF (2022-2027) Large-scale CoPe: Reducing Climate Risks with Equitable Nature-based Solutions: Engaging Communities on Reef-Lined Coasts. Maya Trotz PI. (FMK portion of budget: Approx. \$350,000)

NSF (2022-2024) NSF Convergence Accelerator Track E PHASE II: Linking the Green Economy to the Blue Economy at the Coast. Maya Trotz PI. (FMK portion of budget: Approx. \$350,000)

NSF (2018 - 2023) OceanObs Research Coordination Network. FMK PI, J. Pearlman co-PI. (FMK portion of budget: Approx 200,000)

FWC/FWRI (2022-2023) Water Quality Data Compilation, Analysis and Decision Support. PI: Daniel Otis (Research Associate, FMK Lab).

Historical:

NSF (2021-2022) NSF Convergence Accelerator Track E: Linking the Green Economy to the Blue Economy at the Coast. Maya Trotz PI, FMK Co-PI. (FMK portion of budget: Approx. \$50,000)

NSF (2014 - 2019) The Cariaco basin oceanographic time series program. FMK PI, Co-Is: Y Astor, M. Scranton, G. Taylor, R. Thunell, and K. Fanning.

NSF (2013-2019) Belmont Forum Grant: METROPOLE: An Integrated Framework to Analyze Local Decision Making and Adaptive Capacity to Live With Large-Scale Environmental Change: Community Case Studies in Brazil, UK and the US. FMK PI, Co-I's: Mark Pelling (UK), Jose Marengo (Brazil), Sam Merrill (USA).

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 Marine Biodiversity 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) National Marine Sanctuaries as Sentinel Sites for a Demonstration Marine Biodiversity Observation Network (MBON). FMK PI, co-I: Francisco Chavez (MBARI), Enrique Montes (USF), Steve Gittings (National Marine Sanctuaries Office), Scott Doney (WHOI), Maria Kavanaugh (Oregon State University).

NASA (2018-2020) Laying the foundations of the Pole-to-Pole of the Americas Marine Biodiversity Observation Network: methodologies, capacity-building, and data sharing for biological observations across the Americas (PI: Enrique Montes)

NASA	(2018-2020)(Via Oregon State University) Dynamic Seascapes to Form a Biogeographic Framework of a Global Marine Biodiversity Observing Network (PI: Maria Kavanaugh)
NASA	(2017-2019)(Via North Carolina State University) From Arboreal to Benthic Communities: the ABCs of Land to Ocean Biodiversity Observations. PI: Erin Hestir.
NASA	(2015-2018) Evaluating water quality and tropical vector-borne disease risk by satellite remote sensing (NESSF Fellowship to Doctoral student, Abdiel Laureano-Rosario).
NASA	(Via ROFFS, Inc./PI; 2011-2015) Management and conservation of Atlantic bluefin tuna (Thunnus thynnus) and other highly migratory fish in the Gulf of Mexico under IPCC climate change scenarios: A study using regional climate and habitat models.
NASA	(11/1/2009-10/31/2016). Decision Support System for Ecosystem-Based Management of Tropical Coral Reef Environments.
NASA	(2014-2016). Florida Space Grant Consortium: Unlocking Earth's Secrets from Space; Education collaboration with Stewart Middle School, Tampa.
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:	Collaborative Research with the NASA Marshall Space Flight Center.
NASA	Collaborative effort with ROFFS, 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	Phytoplankton hyperspectral signatures from aerial and underwater high temporal and spectral resolution measurements: GeoCape Science Program Requirements.
NASA	Environmental Assessments of Coral Reef Ecosystems: Interdisciplinary Research; Co-I with S. Andrefouet (IRD, New Caledonia, France)
NOAA	RESTORE (2016-2019) (via University of Miami) Evaluation of GoM oceanic observation networks, impact assessment on ecosystem management and recommendations (PI: Matthieu LeHenaff)
NOAA	(2013-2016) Clean Community-Clean Coast Proposal. Marine Debris Program.
NOAA	(2017-2021) Gulf of Mexico Coastal Ocean Observing System (GCOOS) Graduate Student Support
NOAA	(2012 – 2021) Gulf of Mexico Coastal Ocean Observing System (GCOOS) Remote Sensing in support of GCOOS activities
NOPP	(2014-2018) National Marine Sanctuaries as Sentinel Sites for a Demonstration Marine Biodiversity Observation Network (MBON). NOAA/NASA/BOEM.
EPA	US-Mexico Binational Red Tide Program. Gulf of Mexico Program Office.
EPA	(2012-2016) Ecological Assessment of Generalized Littoral Environments Decision-Support System (EAGLE/DS). Extreme Event Impacts on Air Quality and Water Quality with a Changing Global Climate; EPA-G2011-STAR-D1.
Exxon	Gulf of Mexico Environmental Change Assessment
I-4 Corridor	Tech Support for Improving the NOAA NMFS and ICCAT Atlantic Bluefin Tuna Fisheries Management Decision Support System.
BP/FIO	Gulf Oil Spill Prevention, Response, and Recovery Grant. Early Warning 4-D Remote Sensing System to Assess Synoptic Threats to Coastal Ecosystems of Florida and of Adjacent States and Nations.
FSRI	Florida Space Research Institute; Coastal remote sensing with the Space Station.
NOPP	Influence of Oceanographic and Biological Processes on the Distribution of Cetaceans (D. Mann, PI; FMK co-I)
ONR	University of North Carolina; SEACOOS remote sensing. Co-Is: C. Hu, R. Weisberg.
ONR	Construction and Deployment of an Underwater Optical Micrometer

State of FL Geospatial Assessment of Marine Environments (GAME); Defining coastal bioregions of Florida. Co-I with J. Ogden and H. Norris.

U. Fiji University of Fiji (2014-2019) via the Pacific-American Foundation/PACAM, US AID funding) Developing the Capacity to Generate Coastal and Shallow-Water Basemaps for Tropical Island Nations and Territories of the Pacific.

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