

## JULIETTE WINGFIELD IOUP

(a) Ph.D. Physics, University of Connecticut, 1972

M.S. Physics, University of Florida, 1965;

B.S. Physics with Honors, University of Florida, 1963

(b) 1988-present Professor of Physics, Geophysics, and Electrical Engineering, University of New Orleans

1984-1988 Associate Professor of Physics and Geophysics, University of New Orleans

1981-1984 Geophysicist Data Processor, Texaco

Summer 1981 Lawrence Livermore National Laboratory Summer Program

1980-1984 Adjunct Associate Professor of Physics, University of New Orleans

1980-1983 Professor of Physics, Xavier University

1975-1980 Associate Professor of Physics, Xavier University of Louisiana

1972-1975 Assistant Professor of Physics, Xavier University of Louisiana

(c) **Publications Summary** - Over 85 journal and proceedings articles, technical reports, contractor reports, and book chapters published; over 100 published abstracts; reviewer for 5 journals; over 35 invited talks.

### Relevant Publications

Chapter 6, Environmental acoustic recording system (EARS) in the Gulf of Mexico (George E. Ioup and Juliette W. Ioup and co-authors), to be published in *Listening within the Ocean*, Whitlow W. L. Au and Marc O. Lammers, editors, Springer, 2016

Passive acoustic monitoring of environmental impact of oil exploration in the Gulf of Mexico, Sidorovskaia, Natalia, Ackleh, Azmy, Ma, Baoling, Tiemann, Christopher, Ioup, Juliette, and Ioup, George, in book: *"Effects of Noise on Aquatic Life II,"* Popper, Arthur, Hawkins, Anthony (Eds.), Springer, ISBN 978-1-4419-7311-5 (2014).

Segmentation and outline detection in underwater video images using particle filters, Edward J. Yoerger, Dimitrios Charalampidis, George Ioup, and Juliette Ioup, SPIE Proceedings on Commercial + Scientific Sensing and Imaging, 2016, <http://dx.doi.org/10.1117/12.2223760>

Assessing the Deepwater Horizon oil spill impact on marine mammal population through acoustics: endangered sperm whales, Azmy S. Ackleh, George E. Ioup, Juliette W. Ioup, Baoling Ma, Joal J. Newcomb, Nabendu Pal, Natalia A. Sidorovskaia, and Christopher Tiemann, *Jour. Acoust. Soc. Am.*, 131, 2306-2314, 2012

Segmentation and Outline Detection in Underwater Video Images Using Particle Filters, Edward J. Yoerger, Dimitrios Charalampidis, George E. Ioup, and Juliette W. Ioup, presented at the SPIE Conference on Commercial and Scientific Sensing and Imaging, Baltimore, MD, 18 April 2016, and published in the Proceedings

3-D post-stack seismic inversion using an over-parameterized scheme: Gulf of Mexico example, Elijah A. Adedeji, Abu M. Sarwar, and Juliette W. Ioup, submitted to be presented at the SEG 2016 Annual Meeting, 16-21 Oct 2016, Dallas, and published in the Proceedings

Automatic Fish Counting in Underwater Video, Hazem Khanfer, Dimitrios Charalampidis, E. J. Yoerger, George Ioup, Juliette Ioup, and Charles Thompson, presented at the 66th Gulf and Caribbean Fisheries Institute Conference, Corpus Christi, Texas, 4 - 8 November 2013, and published in the Proceedings, 267-275, 2014

Automatic Fish Classification in Underwater Video, Madhuri Gundam, Dimitrios Charalampidis, George Ioup, Juliette Ioup, Charles H Thompson, presented at the 66th Gulf and Caribbean Fisheries Institute Conference, Corpus Christi, Texas, 4 - 8 November 2013, and published in the Proceedings, 276-282, 2014

Species-Specific Fish Feature Extraction Using Gabor Filters, Arjun Joginipelly, Dimitrios Charalampidis, George Ioup, Juliette Ioup, and Charles Thompson, presented at the 66th Gulf and Caribbean Fisheries Institute Conference, Corpus Christi, Texas, 4 - 8 November 2013, and published in the Proceedings, 283-291, 2014

Simultaneous optimization by simulation of iterative deconvolution and noise removal to improve the resolution of impulsive inputs, Abolfazl M Amini, George E Ioup, and Juliette W Ioup, presented at SPIE Defense, Security, and Sensing 2013, Baltimore, MD, 29 April – 3 May 2013, 10 pages, published in *Signal Processing, Sensor Fusion, and Target Recognition XXII*, edited by Ivan Kadar, *Proc. of the SPIE*, Vol. 8745, paper 87451R, pages 87451R-1 to 87451R-11, 14 June 2013

Simultaneous optimization by simulation of iterative deconvolution and noise removal for non-negative data, Abolfazl M Amini, George E Ioup, and Juliette W Ioup, presented at SPIE Defense, Security, and Sensing 2013, Baltimore, MD, 29 April – 3 May 2013, 10 pages, published in *Signal Processing, Sensor Fusion, and Target Recognition XXII*, edited by Ivan Kadar, *Proc. of the SPIE*, Vol. 8745, paper 87451S, pages 87451S-1 to 87451S-11, 14 June 2013

Automatic Fish Counting in Underwater Video, Hazem Khanfer, Dimitrios Charalampidis, E. J. Yoerger, George Ioup, Juliette Ioup, and Charles Thompson, presented at the 66<sup>th</sup> Gulf and Caribbean Fisheries Institute Conference, Corpus Christi, Texas, 4 - 8 November 2013, and to be published in the Proceedings (2014).

Automatic Fish Classification in Underwater Video, Madhuri Gundam, Dimitrios Charalampidis, George Ioup, Juliette Ioup, Charles H Thompson, presented at the 66<sup>th</sup> Gulf and Caribbean Fisheries Institute Conference, Corpus Christi, Texas, 4 - 8 November 2013, and to be published in the Proceedings (2014).

Species-Specific Fish Feature Extraction Using Gabor Filters, Arjun Joginipelly, Dimitrios Charalampidis, George Ioup, Juliette Ioup, and Charles Thompson, presented at the 66<sup>th</sup> Gulf and Caribbean Fisheries Institute Conference, Corpus Christi, Texas, 4 - 8 November 2013, and to be published in the Proceedings (2014).

Simultaneous optimization by simulation of iterative deconvolution and noise removal to improve the resolution of impulsive inputs, Abolfazl M Amini, George E Ioup, and Juliette W Ioup, presented at SPIE Defense, Security, and Sensing 2013, Baltimore, MD, 29 April – 3 May 2013, and published in Signal processing, Sensor Fusion, and Target Recognition XXII, Edited by Ivan Kadar, Proc. of the SPIE Vol. 8745, pgs 87451R1 – R11, 14 June (2013).

Assessing the Deepwater Horizon oil spill impact on marine mammal population through acoustics: endangered sperm whales, Azmy S. Ackleh, George E. Ioup, Juliette W. Ioup, Baoling Ma, Joal J. Newcomb, Nabendu Pal, Natalia A. Sidorovskaia, and Christopher Tiemann, Jour. Acoust. Soc. Am., 131, 2306-2314, 2012

Species-Specific Fish Feature Extraction Using Gabor Filters, Arjun Joginipelly, Dimitrios Charalampidis, George Ioup, Juliette Ioup, and Charles Thompson, presented at the International Conference on Intelligent Biology and Medicine, ICIBM 2013, 11-13 August 2013, Nashville, TN, to be published in the Proceedings

Signal and Image Processing Techniques as Applied to Animal Bioacoustics Problems, Chris O. Tiemann, Jules S. Jaffe, Paul L. D. Roberts, Natalia A. Sidorovskaia, George E. Ioup, Juliette W. Ioup, Alexander Ekimov, Sean K. Lehman, Acoustics Today 7, 4, 35-43, 2011, invited

Using Passive Acoustic Methods to Study Anthropogenic Noise Impact on Oceanic Megafauna, N.A. Sidorovskaia, G.E. Ioup, J.W. Ioup, A.M. Tashmukhambetov, A.E. Ekimov, 2011, in “Ocean acoustics”, Proceedings of the XIII<sup>th</sup> L.M. Brekhovskikh Conference, Moscow, pp. 270-276 [In Russian with summary translated in English]

(d) **Synergistic Activities** Rossing Prize in Acoustics Education, Acoustical Society of America, 2013

University of New Orleans Seraphia D. Leyda University Teaching Fellow, 2009

Fellow of the Acoustical Society of America, 1993

Senior Member, IEEE, May 2004

University of New Orleans College of Sciences 2004 Undergraduate Teaching Award

Lawrence Livermore National Laboratory Summer Program, summer 1981

Over thirty-six grants and contracts received

9 dissertations directed; over 17 theses directed

(e) **Collaborators in the last 48 months**

Azmy Ackleh, University of Louisiana at Lafayette

Elijah A. Adedeji, University of New Orleans

Abolfazl M Amini, Southern University, Baton Rouge, LA

Whitlow W. L. Au, University of Hawaii

Dimitrios Charalampidis, University of New Orleans

Madhuri Gundam, University of New Orleans

Arjun Joginipelly, University of New Orleans

Hazem Khanfer, University of New Orleans

Marc O. Lammers, University of Hawaii

Baoling Ma, University of Louisiana at Lafayette

Joal J. Newcomb, Naval Oceanographic Office, Stennis Space Center

Nabendu Pal, University of Louisiana at Lafayette

Abu M. Sarwar, University of New Orleans

Natalia Sidorovskaia, University of Louisiana at Lafayette

Christopher Tiemann,

Charles Thompson, National Marine Fisheries Service, Stennis Space Center

Edward J. Yoerger, University of New Orleans

**Graduate Advisors** John Flowers, Univ. of Florida, retired, MS thesis advisor

Arnold Russek, Univ. of Connecticut, retired, PhD dissertation advisor