

**Dr. Weilin “Will” Hou****PROFESSIONAL EXPERIENCE**

Oceanographer, Section Head, U. S. Naval Research Laboratory, Stennis Space Center, MS (2006 - Present):

Research Associate Professor, College of Marine Science, Univ. of South Florida, Tampa, FL (1998-2006)

Postdoc. Oceanography, 1997- 1998

Ph.D. in Oceanography, 1997, Univ. of South Florida

**MANAGEMENT**

Section Head

Ocean Hydro Optics Sensors and Systems Section

U. S. Naval Research Laboratory (2012-present)

Conference Chair

SPIE DSS Ocean Sensing and Monitoring (2008- present)

Data Manager

ONR CoBOP (1997-2000)

Project PI

Multiple projects over \$1 million

**EDITORIAL/COMMUNITY**

Editor, Proc. SPIE Vols. 9827 (2016), 9459 (2015), 9111 (2014)8724 (2013), 8372, (2012), 8030, (2011), 7678, (2010), 7317, (2009)

Guest Editor (Ocean Optics Section), Optical Engineering, (2013-2015)

Associate Editor Journal of Applied Remote Sensing (2016-)

Conference & Session chairs, SPIE DSS Ocean Sensing and Monitoring (2009-present)

Session chairs: AGU Ocean Sciences meeting, 2008; IEEE MTS Oceans, 2012, 2009

Panel member, Defense Technology Security Administration (DTSA), Underwater Imaging (2008-2010)

Panel member, NATO SET-156, (2009-2012), SET-219 (2013-present)

Instructor, “Ocean Sensing and Monitoring: Optics and Other Methods”, SPIE Short Course (0.35 CEU) (2013, 2016), “Introduction to Optical Oceanography”, SPIE Short Course (0.35 CEU) (2012), IEEE course (2014)

Mentor, SEAP, NREIP, NRC/ASEE-NRL Post doctoral program (2008-present);

**AWARDS/HONORS**

2016 Alan Berman Publication Award

2014 SPIE Fellow

2013 Alan Berman Publication Award

2011 NRL Invention Award

2009 NRL Invention Award

2009 NRL People Who Makes a Difference

**PATENTS & PUBLICATIONS**

Patents (6 awarded, 3 pending)

1. GRANTED (x5): Hou, W., A. D. Weidemann, “Automated Underwater Image Restoration via Denoised Deconvolution”, USPTO, 8,437,569 (2013), 8,437,568 (2013), 8,509,476(2013), 8,639,055 (2014), 8,983,222(2015)
2. GRANTED: R. Amin, R. Gould, W. Hou, R. Arnone, Z. Lee, “Automated system and method for optical cloud shadow detection over water”, filed (2011, USPTO 8,509,476)
3. PENDING: SINGLE BEAM/DETECTOR OPTICAL REMOTE CROSS- FLOW SENSOR, 2015/0052,991
4. PENDING: High-resolution discrimination of the fast-varying temperature of turbulence flow (or any other processes of this kind) with high spatial resolution, 103586-US1
5. PENDING: high speed fiber optical temperature and flow sensors, U.S. Patents 58712.0101USU1

#### Books

1. Hou, W., “*Ocean Sensing and Monitoring: optics and other methods*”, SPIE Press (2013)
2. Hou, W., ed. “Ocean Sensing and Monitoring”, SPIE Proc. Vol. 7317, (2009)
3. Hou, W., R. Arnone ed. “Ocean Sensing and Monitoring II”, SPIE Proc. Vol. 7678, (2010)
4. Hou, W., R. Arnone ed. “Ocean Sensing and Monitoring III”, SPIE Proc. Vol. 8030, (2011)
5. Hou, W., R. Arnone ed. “Ocean Sensing and Monitoring IV”, SPIE Proc. Vol. 8372, (2012)
6. Hou, W., R. Arnone ed. “Ocean Sensing and Monitoring V”, SPIE Proc. Vol. 8724, (2013)
7. Hou, W., R. Arnone ed. “Ocean Sensing and Monitoring VI”, SPIE Proc. Vol. 9111, (2014)
8. Hou, W., R. Arnone ed. “Ocean Sensing and Monitoring VII”, SPIE Proc. Vol. 9459, (2015)
9. Hou, W., R. Arnone ed. “Ocean Sensing and Monitoring VII”, SPIE Proc. Vol. 9827, (2016)

#### Relevant publications

1. Guigen Liu, Qiwen Sheng, Weilin Hou, and Ming Han, "High-resolution, large dynamic range fiber-optic thermometer with cascaded Fabry–Perot cavities," *Opt. Lett.* 41, 5134-5137 (2016)
2. M. Han, G. Liu, W. Hou, An optical fiber vector flow sensor based on silicon Fabry-Pérot interferometer array, *Opt. Lett* Vol. 41, Issue 20, pp. 4629-4632 (2016)
3. Gero Nootz, Ewa Jarosz, Fraser R. Dalgleish, and Weilin Hou, "Quantification of optical turbulence in the ocean and its effects on beam propagation," *Appl. Opt.* 55, 8813-8820 (2016)
4. M. Han, G. Liu, W. Hou, Influence of fiber bending on wavelength demodulation of fiber-optic Fabry-Perot interferometric sensors, submitted Manuscript ID: 269691 *Opt Express* (July 1, 2016)
5. G. Liu, M. Han, W. Hou, High-resolution and fast-response fiber-optic temperature sensor using silicon Fabry-Pérot cavity, *Optics Express* Vol. 23, No. 6, March, 2015
6. G. Liu, W. Hou, W. Qiao, M. Han, A fast-response fiber-optic anemometer with temperature self-compensation, *Opt. Express*, Vol. 23, No. 10, May 15, 2015
7. W. Hou, E. Jarosz, S. Woods, W. Goode, and A. Weidemann, “Impacts of underwater turbulence on acoustical and optical signals and their linkage,” *Opt. Express* 21, 4367-4375 (2013).
8. W. Hou, S. Woods, E. Jarosz, W. Goode, A. Weidemann, “Optical turbulence on underwater image degradation in natural environments”, *Appl. Opt.* Vol. 51, Issue 14, pp.2678-2686 (2012)