Jonathan R. Fincke

E-mail: jfincke@whoi.edu

Objective

My interests are in studying physical processes through acoustics and observational fluid mechanics while using engineering to improve field measurements and lab experiments. My strengths are the combination of theoretical analysis, data processing and practical experience.

Education

MIT/WHOI Joint Program (June 2012 - present)
PhD Candidate: Applied Ocean Physics and Engineering (AOP&E)

University of New Hampshire, BS Mechanical Engineering (Summa Cum Laude 2011)

Sea Education Association (SEA) (Summer 2009)

Papers

Development of compact, low-power, autonomous broadband acoustic backscattering system Jonathan R. Fincke, Andone C. Lavery, Frederick Jaffre, Gareth L. Lawson, Peter H. Wiebe (in prep)

Broadband (30-600 kHz) volume scattering measurements of krill (*Meganyctiphanes norvegica*) Andone C. Lavery, Gareth L. Lawson, Peter H. Wiebe, Jonathan R. Fincke, Nancy J. Copley (in prep)

An Animal-Borne Sonar Tag for Elephant Seals Gareth L. Lawson, Andone C. lavery, Peter H. Wiebe, Jonathan R. Fincke, Frederick Jaffre (in prep)

Experience

Woods Hole Oceanographic Institution Research Assistant I June 2011 – June 2012

- Pteropod cruise (25 days at sea) ,operated Edgetech broadband acoustic system
- Trouble shooting work on broadband acoustic systems
- Developed processing code for broadband acoustic system
- Testing and development of miniature sonars
- Calibration of broadband acoustic systems

Woods Hole Oceanographic Institution Summer Fellow Summer 2010

- Calibrated broadband acoustic system for measuring zooplankton and ocean turbulence
- 10 days at sea experience. Deploy: Net tows, acoustic towed bodies, VPR casts

Bay Environmental Quality Study Team (BEQST) Summer 2010- present

- Helped organize first dissolved oxygen time series in Buzzards Bay
- Coordinated oxygen sampling in Buzzards Bay
- Collaboration between Woods Hole Oceanographic institute, USGS, MBL and the Woods Hole Group

Woods Hole Group Summer Internship Summer 2009

- Assisted with oceanographic deployments
- Deployed and processed CTD casts in Buzzards Bay as exploratory project

The Woods Hole Group Summer Internship Summer 2008

- Five days of experience at sea aboard the R/V Connecticut
- Constructed a custom battery pack for a deployment of three bottom platforms.

The Woods Hole Group Summer Internship Summer 2007

Notable courses: Underwater Acoustics, Time Series Analysis (spectral methods), Oceans Waves and Tides, Introduction to Oceanography, Practical Oceanography I&II(SEA), Experimental Measurements and Data Analysis , Introduction to Engineering Design and Solid Modeling

Technical skills

Pro-Engineer, Auto CAD, Matlab, C programming language, mathCAD, Maple, Microsoft Word, Microsoft Excel

Proficient with oceanographic instrumentation communication software
Familiar with instrumentation

Awards and memberships

Department of Defense National Defense Science and Engineering Graduate Fellow (2012)

The Oceanography Society
Tau Beta Pi
SEA class representative
Project leader: Tau Beta Pi middle school engineering outreach day
High School Athlete: Soccer, Lacrosse (CPT)