

Curriculum Vitae

Matthew Collette

Dept. of Naval Architecture & Marine Engineering
235 NAME Building, 2600 Draper Drive
University of Michigan
Ann Arbor, MI 48109 USA

Phone: 734-764-8422
Fax: 734-936-8820
email: mdcoll@umich.edu
web: <http://msdl.engin.umich.edu>

Education

Ph.D. – Marine Technology	University of Newcastle-upon-Tyne, UK	2005
B.S.E. – Naval Arc. and Marine Eng.	Webb Institute, Glen Cove, NY	1999

Employment

University of Michigan, Ann Arbor, MI USA

Assistant Professor, Dept. of Naval Architecture and Marine Engineering 2009-Present

SAIC, Bowie, MD USA

Research Engineer & Senior Naval Architect, Division 184 2005-2009

University of Newcastle-upon-Tyne, Newcastle-upon-Tyne, UK

Junior Research Associate 2001-2005

John W. Gilbert Associates, Inc., Boston, MA USA

Naval Architect 1999-2001

Awards

2015	Quarterdeck Honorary Society Outstanding Undergraduate Professor Award
2013	ONR Young Investigator Program Awardee
2012	Naval Architecture and Marine Engineering Department Award for Outstanding Accomplishment
2010	Quarterdeck Honorary Society Outstanding Faculty Award
2001	National Science Foundation Graduate Research Fellowship
1999	Webb Institute, Chaffee Memorial Prize
1999	Webb Institute, Nixon Thesis Prize in Naval Architecture

Selected Recent Publications

- 1) Zhu, J., and M. Collette. 2015. "A Dynamic Discretization Method for Reliability Inference in Dynamic Bayesian Networks." *Reliability Engineering & System Safety* 138 (June): 242-52. doi:10.1016/j.ress.2015.01.017.
- 2) Hodapp, D., M. Collette and A.W. Troesch. 2015. "Stochastic nonlinear fatigue crack growth predictions for simple specimens subject to representative ship structural loading sequences." *International Journal of Fatigue* 70(January):38-50. doi: 10.1016/j.ijfatigue.2014.08.008.

- 3) Temple, D., and M. Collette. 2015. "Minimizing Lifetime Structural Costs: Optimizing for Production and Maintenance under Service Life Uncertainty." *Marine Structures* 40: 60-72.
- 4) Liu, Y., and M. Collette. 2014. "Improving Surrogate-Assisted Variable Fidelity Multi-Objective Optimization Using a Clustering Algorithm." *Applied Soft Computing* 24 (November): 482–93. doi:10.1016/j.asoc.2014.07.022.
- 5) Knight, J., D. Singer, and M. Collette. 2014. "Testing of a Spreading Mechanism to Promote Diversity in Multi-Objective Particle Swarm Optimization." *Optimization and Engineering*, April, 1–24. doi:10.1007/s11081-014-9256-8.
- 6) Hodapp, D., M. Collette and A.W. Troesch. 2013. "Nonlinear Fatigue Crack Growth Predictions for Simple Specimens Subject to Time-Dependent Ship Structural Loading Sequences" *Transactions of the Society of Naval Architects and Marine Engineers*, 121: 57-90.
- 7) Nelson, M., D. W. Temple, J. T. Hwang, Y. L. Young, J. R. R. A. Martins, and M. Collette. 2013. "Simultaneous Optimization of Propeller–hull Systems to Minimize Lifetime Fuel Consumption." *Applied Ocean Research* 43: 46–52. doi:10.1016/j.apor.2013.07.004.

Invited Lectures and Seminars

- Johns Hopkins University, "Bayesian Approaches to the Structural Integrity Management of Large Vessel Structures", November 2015.
- Newcastle University, "Optimization and Bespoke Support – New challenges for the marine structures community", May 2014.
- University of Strathclyde, "Supporting the Next Generation of Design and Analysis: Research Challenges for Marine Structures", December 2011.
- MIT, Research "Challenges in Commercial and Marine Structures", February, 2011.
- Webb Institute, Founder's Day Address, April 2009.

Professional Activities

Membership

- Associate Member, Society of Naval Architects and Marine Engineers
- Member, ASTM International
- Member, ASNE
- Member, ASEE
- Chair and Member, Committee IV.2 Design Methods, 2012-2015 International Ship and Offshore Structures Congress.
- Chair and Member, Committee IV.1 Design Principles, 2015-2018 International Ship and Offshore Structures Congress.

Journal Involvement

Associate Editor, *Journal of Ship Production and Design*, 2010-2012
 Associate Editor, *Ocean Engineering*, 2011-2012
 Deputy Editor-in-Chief, *Ocean Engineering*, 2012-2013
 Co-Editor-in-Chief, *Ocean Engineering*, 2013-Present

Professional Registration

- Professional Engineer in State of Maryland since 2007 (Registration Number 34716)