NEWS from

The Society of Naval Architects and Marine Engineers

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The SNAME 2004 Davidson Medal "for outstanding scientific accomplishment in ship research," presented to Ronald W. Yeung, University of California at Berkeley

The Society of Naval Architects and Marine Engineers presented its prestigious Davidson Medal to Ronald W. Yeung at the Society's Banquet on October 1, 2004, during the SNAME Maritime Technology Conference in Washington, DC.

Dr. Ronald W. Yeung is recognized nationally and internationally as a leader in the field of ship hydrodynamics. Dr. Yeung was one of the early pioneers in the field of numerical ship hydrodynamics and is the author of the widely quoted survey paper "Numerical Methods in Free-Surface Flows" that appeared in the Annual Review of Fluid Mechanics (1982). Dr. Yeung has published over 100 other papers in leading journals and symposia on a wide range of topics. Many of the papers were co-authored with his students, 17 of whom received Ph.D. degrees and over 40 received masters. His students have received five best graduate-student paper awards from SNAME and four from ASME-International.

Dr. Yeung received his B.S., M.S., and Ph.D. degrees from the University of California, Berkeley. He was the University Gold Medallist of his graduating class of 1968. His academic career started as an assistant professor at MIT in 1974. He returned to the University of California, Berkeley as a Professor in 1982; in 1994 he was advanced to the rank of Distinguished Professor. From 1989 until 1996, he served as the chair of the Department of Naval Architecture and Offshore Engineering at University of California, Berkeley. In 1997, he spearheaded the formation of the Interdisciplinary Graduate Group of Ocean Engineering in Berkeley.

Professor Yeung has made many notable contributions to our understanding of the hydrodynamics of ships and offshore structures. His accomplishments have been recognized by several distinguished awards including a Fulbright Senior Fellowship (1981) in Australia, two Alexander von Humboldt Distinguished U.S. Scientist Awards (1988, 1998) in Germany, and the Georg Weinblum Memorial Lecturership (2002-2003). The Weinblum Lecturership is one of the most prestigious awards for researchers working in the field of marine hydrodynamics. Professor Yeung was elected a Fellow of SNAME in 1998.

Professor Yeung's research covers many aspects of marine hydrodynamics. Some of his earliest work was on the maneuvering of air-cushion vehicles. He has also worked extensively on seakeeping problems including a hybrid method to compute two- and three-dimensional added mass and damping using "Rankine sources" in the near field. The Rankine source method is very popular today, but Professor Yeung's original work was in 1973. In the late 1970's, Professor Yeung's research work focused on application of the slender-body theory to the problems of ships operating in confined waters. Even though the techniques were developed thirty years ago, they are still used to effectively predict sinkage, trim, and interaction forces acting on a ship operating in close proximity to fixed obstacles or other ships. In the 1980's, his publications contributed to the understanding of breaking bow waves and interference phenomena related to tank-wall effects. Most recently, he has been working on viscous-flow computations using vortex methods for predicting roll damping and wave loads on offshore structures. These works involved both theoretical predictions and experimental validations.

Dr. Yeung has been an active member of SNAME since 1975. He is a member of the Panel H-5, (Analytical Ship-Wave Relations), the Scholarships Committee, and the Education Committee. As the academic liaison for over a decade in the Northern California Section, he has encouraged many students to take on the challenges of the marine field. He serves on the advisory boards for the University of Michigan and Delft Technical University. He has served as a member of various Editorial Boards including those of the Journal of Ship Research, the International Journal for Computers and Fluids, and the Journal of Engineering Mathematics.

Barbara Trentham
Assistant to the Executive Director
10/24/2004

Prof. R. W. Yeung