

Cal-SNAME Students received 2004 Graduate Paper Honor Prize of SNAME.

The University of California (Berkeley) Section was pleased to recognize two of its members who received the 2004 SNAME Graduate Paper Honor Prize at the SNAME MTC&E Conference in Washington DC. On March 16, 2004, the Berkeley Mechanical Engineering/Ocean Engineering students Jean Toilliez and Grégoire Poupard presented their paper entitled “Fast Evaluators for Optimal Multi-Hull Configurations” in the Northern California Section Meeting, held at the UC Berkeley Faculty Club. This paper presents the results of their research work at the UCB Computational Marine Mechanics Laboratory. The work involved the development of a rapid and accurate model for evaluating how multi-hulls can be configured to minimize wave drag, a component of resistance that inhibits marine vehicles from achieving high speed. The notion of interference resistance among the hulls was introduced by them and analytical expressions were derived, which can be applied to a configuration of member hulls. The authors developed a fast and accurate “resistance evaluator” using specialized quadrature techniques. The paper described demonstrative computations for evaluating the effects of separation and stagger on a catamaran configuration and computations for optimizing the volumetric distribution among hulls in a trimaran configuration. An extended version of this paper, entitled “Interference-Resistance Prediction and Its Applications to Optimal Multi-Hull Configuration Design”, was later presented in the 2004 Annual Meeting with their advisor Professor R. W. Yeung. Toilliez and Poupard were Vice President and Treasurer, respectively, of Cal-SNAME last year..

Cal-SNAME Officers (J. F. Perri, J. Elkin, A. Aubault, Y. Z. Lu).

