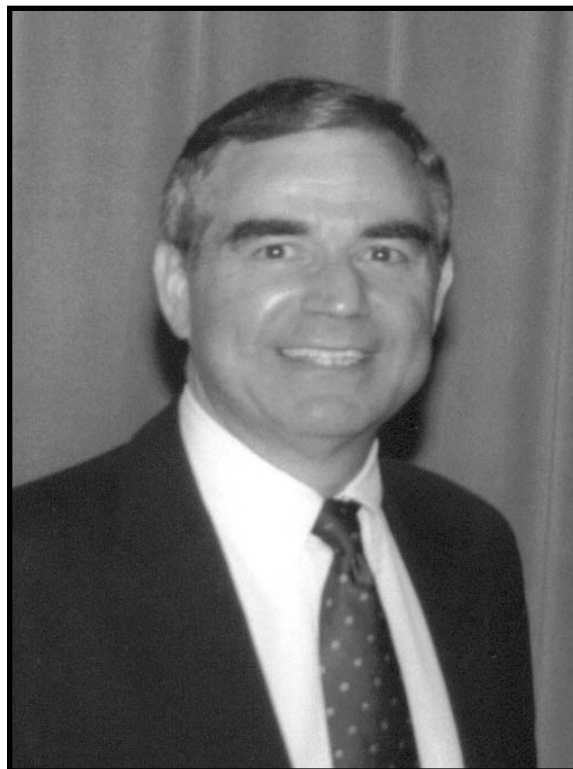


PROFESSOR PAUL J. MARTO

On the Occasion of His 65th Birthday

THE ADVANCEMENTS IN FILM CONDENSATION on integral finned surfaces, dropwise condensation on tubes coated with hydrophobic materials or self-aligned organic monolayers, and wickless rotating heat pipes, among others, are perhaps synonymous with the research of Professor Marto. His contributions to the science and engineering of enhanced heat transfer span almost four decades of work and cover applications ranging from large heat exchange equipment for power systems to small-scale electronic cooling devices. This work has not only enriched academic pursuits, but also has provided important design tools to the practicing engineer.

Born in Flushing, Long Island, New York, on August 15, 1938, Paul J. Marto attended the University of Notre Dame and received a BS degree in Engineering Science along with a commission in the United States Naval Reserve in 1960. He was released from active Naval duty to attend graduate school at the Massachusetts Institute of Technology in the Nuclear Engineering Department. Under an Atomic Energy Commission Special Fellowship in Nuclear Science and Engineering, he received his MS degree in 1962 and ScD degree in 1965. His ScD thesis, *The Effect of Surface Conditions on Nucleate Pool Boiling Heat Transfer to Sodium*, was under the direction of Professor Warren M. Rohsenow in the Heat Transfer Laboratory at MIT.



In February, 1965, Dr. Marto reported to the Naval Postgraduate School as a military instructor. Upon separation from active duty in 1967, he joined the civilian faculty of the Department of Mechanical Engineering. He was promoted to Professor in 1977 and served as Chairman of the Department of Mechanical Engineering from 1978 to 1986. In June 1985, he was appointed Distinguished Professor. Five years later, Professor Marto was appointed

Dean of Research, in which capacity he served from 1990 through 1995, at which time he retired from the faculty to spend more time on his consulting activities. During the course of his academic career, he has been a visiting professor at the US Naval Academy, Annapolis, Maryland; at Queen Mary College, University of London; at the Nuclear Research Center, Grenoble, France; at the Armed Forces University, Hamburg, Germany; and at the University of Stuttgart, Germany.

Professor Marto has taught undergraduate and graduate level courses, specializing in heat transfer, fluid mechanics, thermodynamics, and nuclear power systems. In addition, he has organized and taught over 15 short courses on such topics as cooling of electronic equipment, heat pipes, condensation and heat exchanger thermal design at universities, industrial facilities and professional societies in the US, Israel, and Germany. He has advised more than 100 MS theses, served on seven PhD committees,

and sponsored the following postdoctoral associates: Dr. Amar S. Wannan, Dr. Alexis Michael, Dr. Stephen B. Memory, and Dr. Ashok Das.

The focus of Dr. Marto's research has been on pool boiling phenomena, filmwise and dropwise condensation, heat exchange equipment, heat pipes and electronics cooling. He has published nearly 100 research papers, reports, and book chapters and has edited several books. His work on the effect of surface conditions during nucleate boiling, the influence of fins on laminar film condensation on single tubes and tube bundles, the effect of non-wetting coatings on dropwise condensation, and the design and analysis of rotating, wickless heat pipes are internationally well known. Besides, many of these investigations are the cornerstones of advanced science and engineering of enhanced heat transfer, especially the condensation experiments on fin-surface and non-wetting coatings. He has authored review papers on as diverse topics as application of heat pipes to electronics cooling, rotating heat pipes, heat transfer and pressure drop during shellside condensation, and evaluation of film condensation on horizontal integral-fin tubes (*ASME Journal of Heat Transfer*, 50th Anniversary Issue). In addition, he has authored an extensive chapter on condensation in the 3rd edition of the *Handbook of Heat Transfer* (McGraw-Hill) that provides the state-of-the-art of science and engineering in the field.

Paul Marto has dedicated much of his professional life to the service of others. At the Naval Postgraduate School, for example, he has been active in both departmental and school-wide committees, supervising an operating nuclear reactor and serving on the Academic Council, Faculty Council, and Research Council. He has been a member of Tau Beta Pi, Sigma Xi, the American Society for Engineering Education, and the American Society of Naval Engineers. He has been particularly active in ASME, chairing several committees and serving on the Heat Transfer Division Executive Board from 1989 to 1990. He has served as Vice President of the Pacific Center of Thermal-Fluids Engineering since 1991. He has organized a number of technical

sessions at international conferences and was a co-chair of the 2nd ASME–JSME Thermal Engineering Joint Conference in 1987. Dr. Marto has also served in a variety of editorial positions for archival journals. He was a Technical Editor of the *ASME Journal of Heat Transfer* from 1983 to 1989, Regional Editor of the *Journal of Enhanced Heat Transfer* from 1993 to 1998, and Founding Editor and Editor-in-Chief of the *International Journal of Transport Phenomena* from 1997 to 2002. Furthermore, he has given his time liberally to local community activities such as the Boy Scouts of America, Little League Baseball, school boards, church organizations, and other community associations.

Professor Marto's professional contributions have been recognized through various awards and honors. He received a NASA–ASEE Summer Faculty Fellowship in 1966 and 1968. At the Naval Postgraduate School, he received the Rear Admiral John Jay Schieffelin Award for Excellence in Teaching in 1976 and the Carl E. Menneken Research Award in 1983. He was elected Fellow of ASME in 1985. He was a Keynote Lecturer at the 8th International Heat Transfer Conference in 1986. He received a NATO Senior Guest Scientist Award in France in 1988 and was awarded an Alexander von Humboldt US Senior Scientist Award in Germany in 1990 and 1998. In 1996, he was awarded the Navy's Distinguished Civilian Service Award, the highest honor awarded to a civilian by the Secretary of the Navy.

With a very hectic professional life, Paul has also been a dedicated family man. He married his wife Ginger in 1961, and they have four children and four grandchildren. His pleasant, cheerful, and engaging demeanor has won him many friends and admirers worldwide. And on behalf of his former students, colleagues in the heat transfer community, friends, and the editorial board of the *Journal of Enhanced Heat Transfer*, we wish him many happy returns of the day, and that he and his family always have good health and much happiness.

Raj M. Manglik

Ralph L. Webb