



## **Ding Lee**

**1925 – 2016**

Dr. Ding Lee was one of the most active and popular researchers in the field of Underwater Acoustics and founder of the International Conference on Theoretical and Computational Acoustics (ICTCA) and the Journal of Computational Acoustics (JCA). The announcement of his death last January was accepted with deep sorrow among the members of the community of computational acoustics, as he devoted his whole life to the promotion of the computational tools in acoustics.

Dr. DLee was born in RuNie of the Jiangsu Province of China. He received his B.S. in Navigation Administration from the National Chiao-tung University, China, in 1949; came to the U.S. in 1952; received a M.S. in Mathematics from the Fordham University in 1957; and Ph.D. in Mathematics from the Polytechnic Institute of New York in 1974.<sup>1</sup>

Dr. Lee worked in various companies as computer or system analyst to close his carrier as a mathematician in 2000 at the U.S. Naval Undersea Warfare Center (NUWC). During his career at NUWC, Dr. Lee received numerous awards and honors.

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<sup>1</sup> Data taken from Prof. Sean Wu editor-in-chief of the Journal of Computational Acoustics

His main research achievements are associated with the development of computational tools for solving the acoustic wave equation in oceanic waveguides in 3-D environments. His research was focused on the Parabolic Approximation (PE) which became his primary subject of interest. Moreover, he was among the first to exploit the capabilities of the supercomputers to treat numerical solutions of the wave equation. His favorite numerical tools were focused on finite-difference schemes and his book on “Numerical Ocean Acoustic Propagation in Three Dimensions” published in 1995 in co-authorship with Martin Schultz remains a key textbook in this area. He wrote many papers in the area of computational acoustics and developed a series of computer codes associated with his suggested numerical methods. Some of these codes still remain the core of the most modern computer algorithms developed or under development for the 3-D acoustic propagation problem in oceanic waveguides. Dr. Lee combined a clever view on numerical analysis, a rigorous mathematical foundation, a deep knowledge of differential equations and an unmatched capability of developing efficient numerical codes for solving the most difficult problems of underwater acoustic propagation. Moreover, he was able to transmit and share his ideas and knowledge to his students and his colleagues in the most pleasant, still scientifically rigorous way. Throughout his life, he has been constantly confident that young scientists need new forums for the exchange of knowledge and ideas and that interdisciplinarity is the future in science. Motivated by his ideas, he founded in 1993 the International Conference on Computational and Theoretical Acoustics (ICTCA). The conference is held since then, every second year in different countries. From the very first conference, Dr Lee managed to attract as faithful participants, prominent scientists working in different fields of acoustics and seismology, having as common way of thinking, the coupling between theory and applications.

Dr. Ding Lee had many friends around the globe, including myself, as he was very kind and open to everybody. The scientists and his friends will miss him, but they will also remember him as bright example of a hard-working and productive researcher.

Professor Michael Taroudakis

President of EAA