

ASME D'Alembert award – Thomas R. Kane, 2005

For the very first time, the D'Alembert and Lyapunov Awards (for significant contributions in the fields of multi-body systems and nonlinear dynamics, respectively) were presented at the 5th MSNDC (Multibody Systems and Non-linear Dynamics Committee) luncheon. The first D'Alembert Award was given to Professor Thomas Kane, while the first recipient of the Lyapunov Award was ...

- **2005 D'Alembert Award: Thomas R. Kane**



Professor Thomas R. Kane was born in Austria in 1924 and emigrated to the United States in 1938. After serving as a combat photographer in the South Pacific from 1943-45, he enrolled at Columbia University where he later received four degrees: a B.S. in Mathematics, a B.S. and M.S. in Civil Engineering, and a PhD. in Applied Mechanics.

After graduating, Professor Kane spent the next 45 years teaching at the University of Pennsylvania and Stanford University, and giving lectures, seminars, and conferences in several languages around the world. Professor Kane has served the scientific and engineering communities as a researcher, mentor to multiple generations of practitioners, scientists and educators, and through his impassioned promotion of the field.

He has published 10 textbooks and 172 technical papers that include seminal works in spacecraft dynamics, biomechanics, and modern computational dynamics. Due to his many contributions Professor Kane is widely acknowledged as one of the world's preeminent motion experts and the author of modern dynamics theory (often referred to as "Kane's Method").

Professor Kane has been instrumental in the development of Autolev, the symbolic multibody systems simulation program, providing technical leadership and vast amounts of documentation. Currently Professor Kane is a Professor Emeritus of the Mechanics and Computation Division of Mechanical Engineering at Stanford University. He is also the President of Kane Dynamics, Inc. a consulting company that specializes in providing motion expertise to the biomechanical, legal, and defense industries.

Since joining OnLine Dynamics in 1988, Professor Kane has pioneered the effort to bring symbolic manipulation to the engineering classroom. He has generously shared his motion simulation knowledge with three new (1999)

textbooks that successfully integrate symbolic manipulation into the undergraduate and graduate statics/dynamics classroom.

ASME Honorary Member Award – Thomas R. Kane, 1995

ASME Honorary Member



An Honorary Member shall be a person who has made "distinctive contributions" to engineering, science, industry, research, public service, or other pursuits allied with and beneficial to the engineering profession.

Honorary Membership was first awarded in 1880, the founding year of the Society. The roster of Honorary Members contains the names of leaders of world renown who have been selected under carefully drawn procedures rigorously maintained by the Society over the years.

In 1962, the ASME further defined this statement as "distinguished service that contributes significantly to the goals of the engineering profession." While this definition may sometimes imply career-long dedicated activity, that alone is not adequate for this highest level of Society Membership.

The Board of Governors may elect up to five Honorary Members each year (By-Law B3.1.10). An Exception was made in 1980 - the Centennial Year of the Society - when 38 Honorary members were elected.

Publications by Thomas R. Kane

BOOKS

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