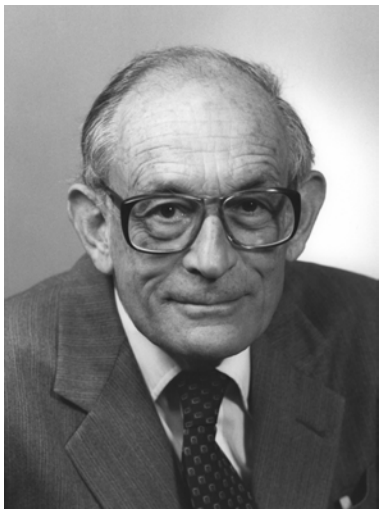
MEDALIST FOR 1986

For outstanding leadership in fluid mechanics research and education. His influence contributed significantly to the development of a generation of outstanding leaders in the field.



HANS WOLFGANG LIEPMANN

Born in Germany, July 3, 1914, Hans Liepmann had the opportunities of schooling in Istanbul, Prague and Zurich; receiving his PhD in Physics and Mathematics from the University of Zurich in 1938. Due to a chance remark made to one of his professors, he was invited to (appropriately enough) join the Guggenheim Aeronautical Laboratory at the California Institute of Technology. After several progressive appointments he was made the Director of the Guggenheim Labs in 1972.

Dr. Liepmann became the first Theodore von Karman Professor of Aeronautics in 1984, and in the following year was made Professor Emeritus.

Liepmann's interest in natural sciences and technical problems predates even his grade school days. His work in propulsion was cut short by parental decree after a rocket explosion in his bedroom. His first flight took place in a Lockheed Lodestar at Pasadena, fitted out with hot wire equipment for a test of tail buffeting, under the guidance of another Guggenheim honoree, Clarence "Kelly" Johnson. War training courses in high speed aerodynamics, taught at Douglas and Lockheed, led to a long-time interest in gasdynamics. This resulted in a graduate course at Cal Tech and two textbooks ("The Aerodynamics of Compressible Flow" and "Elements of Gasdynamics" co-authored with Anatol Roshko), which became standards in the USA; they were later translated into a number of foreign languages.

Dr. Hans Liepmann's research on shock wave boundary layer interaction, buffeting and active control of laminar turbulent transition has been a lasting contribution to Aeronautics. However, his most important contribution has been the 50 PhD graduates whom he guided. Ten of these outstanding people have already become co-members of the National Academy of Engineering.

Many awards and honors have been bestowed on Liepmann. He was a member of the National Academy of Sciences, National Academy of Engineering, American Academy of Arts and Sciences, International Academy of Astronautics and an Honorary Fellow of the Indian Academy of Sciences

and the American Institute of Aeronautics and Astronautics. He also received the Ludwig Prandtl Ring – the highest honor conferred by the German Society for Aeronautics and Astronautics, and in 1986 President Ronald Reagan awarded Lipmann the National Medal of Science.

Liepmann, a pioneering researcher and passionate educator in fluid mechanics passed away on June 24, 2009