



BRUNO A. BOLEY

1924–2017

Elected in 1975

*“Contributions in research and teaching in applied mechanics,
particularly on thermal stress analysis and on dynamical problems.”*

BY FRANK DiMAGGIO
SUBMITTED BY THE NAE HOME SECRETARY

BRUNO ADRIAN BOLEY, who died at age 92 on February 11, 2017, was a distinguished figure in engineering mechanics, as both a scientist and an administrator.

He was born May 13, 1924, in Gorizia, Italy, with the original family name Bolaffio. After a hurried exit from Italy to escape anti-Semitic laws and a circuitous trip through Europe, his family arrived in the United States in 1939. A change in family name and a quick high school experience followed.

He earned a BS in civil engineering from the City College of New York in 1943 and in 1945–46, as a student of the eminent Nicholas Hoff, an MS and ScD in aeronautical engineering from the Polytechnic Institute of Brooklyn, where he remained as assistant professor until 1948.

After practicing engineering at Goodyear Aircraft for 2 years, he returned to academia as assistant professor of aeronautical engineering at the Ohio State University until 1952, associate and then full professor of civil engineering at Columbia University until 1968, J.P. Ripley Professor and chair of the Department of Theoretical and Applied Mechanics at Cornell University until 1972, and Walter P. Murphy Professor and dean of the Technological Institute of Northwestern University until 1986, when he returned to stay at Columbia.

He made significant contributions in a wide spectrum of applied mechanics, reported in over 100 technical papers, but his most important work, for which he received international recognition, was in the analysis of thermal stresses, much of which was exhibited in the classic treatise *Theory of Thermal Stresses*, which he coauthored with Jerome H. Weiner (Wiley, 1960; reprinted by Dover in 2011).

Concurrently with his scientific work, he was involved with many governing bodies and technical societies in mechanics. He was founder of the Association of Chairmen of Departments of Mechanics, editor in chief of the journal *Mechanics Research Communications*, and served as president of the American Academy of Mechanics and the Society of Engineering Science. He was on the board of governors of the American Society of Mechanical Engineers (ASME) and Argonne National Laboratory, and was chair of the US Committee on Theoretical and Applied Mechanics.

In recognition of his contributions he was elected to the National Academy of Engineering in 1975, and in 1991 received both the Worcester Reed Warner Medal from ASME and the Theodore von Kármán Medal from the American Society of Civil Engineers.

Professor Boley's interest in intellectual areas outside his principal discipline was eclectic. He had a particularly deep knowledge of European (especially Italian) literature and history, and was an accomplished public speaker.

He was predeceased by his wife Sara (née Kaufman) and daughter Jacqueline, and is survived by his son Daniel and a granddaughter.

