

## IN MEMORIAM

### VICTOR G. SZEBEHELY

Victor Szebehely was one of a truly remarkable group of immigrants who came to the United States from Hungary as a result of the upheavals caused by the Second World War in Europe. Among these were Theodore von Karman, who was the guiding spirit of technology for the U.S. Air Force during the post World War II years, John von Neumann, the inventor of the modern computer, Eugene Wigner, who won a Nobel Prize for contributions to nuclear physics, Edward Teller, the “father” of the Hydrogen Bomb, and more recently, Andrew Grove, the current Chief Executive Officer of INTEL Corporation. It is no exaggeration to say that the history of our country would not have been the same without them. Victor was a significant member of this group.

Victor Szebehely was born in Budapest in 1921. He was educated in Budapest and received a Master of Science in Mechanical Engineering in 1943 from the Budapest Technical University and a Doctor of Science in Engineering from the same university in 1946. Victor’s Ph.D. thesis dealt with an analysis of the three body problem and therefore foreshadowed his later work on this most important subject. While in graduate school, Victor served as a lecturer (Assistant Professor equivalent) at the Budapest Technical University. In 1947, Victor left Hungary and emigrated to the United States. While waiting to become a U.S. citizen he served as Associate Professor of Applied Mechanics at Virginia Polytechnic Institute. He also held visiting and temporary posts at the University of Maryland and George Washington University. Upon becoming a U.S. citizen in 1954, Victor went to work for the U.S. Navy in Washington, D.C. at the David Taylor Model Basin where he headed the Ship Dynamics Branch. His work on the motion of small warships in heavy seas was done during this period and it was the first effort for which he received international recognition. In 1956, he was awarded the Distinguished Order of Merit by the Government of the Netherlands for applying these results to the behavior of their naval vessels under the stormy conditions that exist in the North Sea.

Victor Szebehely began his work on the U.S. Space Program as a Manager of Space Mechanics at the General Electric Missiles Space Division near Philadelphia in 1957. For the next six years he worked on a number of programs of importance to the U.S. Space exploration effort. It was here that he began to apply the methods of treating the three body problem he had developed as part of his thesis work to the problem of going to the Moon. In 1963, Victor

moved to Yale University as Associate Professor of Astronomy and he continued his work and the application of the restricted three body to the Apollo missions in the group headed by Dirk Brouwer. He served on the Yale faculty until 1968 and then he moved to Texas to assume a position as Professor in the Department of Aerospace Engineering and Engineering Mechanics at The University of Texas at Austin. Eventually (in 1983), he was appointed to the R.B. Curran Centennial Chair in Engineering.

In Austin, Victor continued his work on celestial mechanics which involved the development of methods to navigate spacecraft to the Moon and to other planets in the solar system. In doing this work, he developed relationships with NASA's Jet Propulsion Laboratory and the NASA-Lyndon B. Johnson Space Center, which have the missions of developing and operating spacecraft for planetary exploration and developing spacecraft to carry people, respectively. He made important contributions to the development of both of these institutions.

In addition to his technical and scientific work, Victor Szebehely also held significant leadership positions in the University. The most important of these was his service as Chairman of the Department of Aerospace Engineering and Engineering Mechanics from 1977 to 1981.

Victor Szebehely was a widely known and respected consultant. Among other organizations with which he worked were the U.S. Air Force Space Command, the University of California's Lawrence Berkeley Laboratory, and the Institute for Defense Analysis in Washington, D.C. He was also a member of a number of professional and honorary societies. Victor was a fellow both of the American Institute of Aeronautics and Astronautics and the American Association for the Advancement of Science. He was a member of the American Astronomical Association and in 1977 received the Dirk Brouwer Award for Dynamical Astronomy from that organization. Victor also served as president of the Commission on Celestial Mechanics of the International Astronomical Union. He was a member of the European Academy of Arts, Sciences and Literature, and in 1982 he was elected to the U.S. National Academy of Engineering. In 1991, Victor was awarded an Honorary Doctor of Science degree by Eotvos University in Budapest. A few months before his death in September 1997, he received an award for his work in Mathematical Physics from the Accademia Nazionale Dei Lincei in Rome.

Victor Szebehely was a prolific contributor to professional journals with about 200 articles to his credit. He also wrote or edited 18 books. Among these was a definitive treatise on the three body problem, "Theory of Orbits: The Restricted Problem of Three Bodies"

(Academic Press, New York and London, 1967). He also published a text book on celestial mechanics, “Adventures in Celestial Mechanics” (University of Texas Press, 1989). In 1994, Victor decided that a second edition of the book might be appropriate and one of us (H.M.) was asked by him to collaborate with him in this project. The second edition of “Adventures in Celestial Mechanics” was published in February 1998. Unfortunately, Victor never lived to see the publication of this work. Victor Szebehely died at his home in Austin on September 13, 1997.

Victor Szebehely was unique in his deep understanding of celestial mechanics and in his ability to apply this knowledge to the solution of practical problems. Victor did not hesitate to tackle the toughest scientific question in his field, the problem of three bodies. He had the intellectual courage to take on the hardest challenges and the intellectual power to make critical contributions of lasting value. In addition to being a man of intellect, Victor was also a man of good will who was respected and honored by all who knew him. He was a great man whose influence was widespread. We were his colleagues who came into his orbit, and we are grateful to have had the opportunity to know him. We mourn him, and we miss him.

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Larry R. Faulkner, President  
The University of Texas at Austin

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John R. Durbin, Secretary  
The General Faculty

This Memorial Resolution was prepared by a special committee consisting of Professors Hans Mark (chair), Roger Broucke, and Byron D. Tapley.