



UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Memorial Tribute to

JAMES (JIM) FENNEL KEFFER

Professor Emeritus
Department of Mechanical & Industrial Engineering

December 7, 2023

Be it resolved –

THAT the Council of the Faculty of Applied Science & Engineering record with deep regret the death on September 29, 2023 of Professor Emeritus James (Jim) Fennell Keffer.

A distinguished professor, researcher, teacher and administrator at the University of Toronto, Professor Emeritus Jim Keffer made lasting contributions to fluid mechanics, and heightened the international research profile of U of T during a remarkable career.

Born in 1933, Jim pursued his undergraduate mechanical engineering studies at U of T. Maintaining an honours standing while playing football for the Varsity Blues, Jim was a member of the U of T Hall of Fame team that won the Yates Cup in 1954. After graduating in 1956, Jim joined the research division of Canadian General Electric, which led to his return to U of T for graduate studies. Advised by Professor Doug Baines, Jim obtained his PhD in mechanical engineering in 1962 and then spent two years as a postdoctoral fellow at the Cavendish Laboratory at Cambridge. On his return to Canada, he joined U of T's Department of Mechanical Engineering as an Assistant Professor.

Jim's lifetime of research advanced understanding of fluid mechanics with emphasis on two fundamental shear flows: the wake and the jet. He used novel experimental techniques to investigate these basic flows, which are relevant to environmental problems such as pollutant dispersion, smokestack dispersion, and climate effects. Jim and his students developed rigorous theoretical analyses to support their experimental data and to evaluate their validity and limitations, an important contribution to computer models.

Jim had a keen ability to recognize and plan for the future. Through his efforts, he helped the department and university acquire a unique wind tunnel in the 1970s that remains in use to this day. This facility allowed him to perform sophisticated measurements for the first time and contributed to his widely cited and highly respected work. The quality and significance of his research brought many interested students to his lab. Those under his supervision graduated to

become university professors and global industry leaders who continue to contribute to turbulence measurement and analysis.

Jim's roles at U of T extended far beyond the classroom and his lab, as he undertook several administrative positions. He served as the Director of Graduate Studies for Mechanical Engineering, which led to appointments as the Associate Dean at the School of Graduate Studies, and later as Vice-Provost, Professional Faculties. Before retirement, Jim's final appointment was as Vice-President, Research and International Relations. In this role, he firmly established a professional service orientation within the portfolio; made major organizational innovations that his successors have built on to increase U of T's international research profile; and brought the first Cray supercomputer to the campus.

Jim formally retired from U of T in 1999. He and his late wife, Anne, enjoyed their retirement. Summers were spent cruising on their yacht in Georgian Bay; winters were spent in Florida. After Anne passed away in 2015, Jim married Carol Moore-Ede, a family acquaintance of some years. Jim often remarked that he was indeed fortunate to be so lucky twice in one lifetime.

Be it further resolved –

THAT this tribute to Professor Emeritus James (Jim) Fennell Keffer be inscribed in the minutes of this Council meeting, and that copies be sent to his family as an expression of the respect and gratitude of the members of this Council.

Prepared with input from Pierre Sullivan, Judith Chadwick and Carol Moore-Ede