

RESOLUTION ON THE RETIREMENT OF A. BENJAMIN PERLMAN
May 16, 2007

**Adopted by the Faculty of Arts, Sciences and Engineering and placed in the Archives of
Tufts University**

Armand Benjamin Perlman was born in Colorado Springs but spent most of his youth in New Jersey and Pennsylvania. The son of a rabbi, Benj attended Lehigh University where he received a BS with high honors in 1961. He then headed back West, temporarily, to Stanford where he received his MS in Mechanical Engineering. However, attracted by both the prospect of working with his mentor, Prof. George Sih, a world-renowned expert in Applied Mechanics, and by the superior cultural and meteorological climates of Bethlehem, PA compared to Stanford, CA, Benj returned to Lehigh in 1962. He received the PhD in Applied Mechanics from Lehigh in 1965 and was invited to join the Mechanics faculty there as an Assistant Professor.

Benj's time in New Jersey was not spent solely on academic pursuits. His younger sister had become good friends with a girl in her high school youth group. Benj's mother took an immediate liking to this young lady and did her own engineering by bringing Benj and Sylvia together. Benj was recruited to Tufts as an Assistant Professor by then Mechanical Engineering Chair Lloyd Trefethen in 1967, when Sylvia also moved to Boston; they were married in the summer of 1968, and settled in Lexington in 1974. Benj's sister, Sharon, who later served as Dean of the College at Clark University, and subsequently their parents, also came North and the family enjoyed the proximity of the senior Perlman's until their passing.

Prof. Perlman joined Tufts Mechanical Engineering at a heady time. The field of computer-aided engineering was exploding as advances in engineering science and computing power provided unprecedented opportunities for modeling material behavior phenomena previously only addressed empirically. This coalescence was ideal for Prof. Perlman's combined analytical skills and expertise in computation. He quickly became a leader in the then College of Engineering's early adoption of computers, which he serviced as repairman, system administrator, researcher, and all around guru. He was the first faculty member to introduce finite element analysis into the curriculum and he continues to set the standard for teaching this topic to this very day. It was soon after his arrival at Tufts that Prof. Perlman became recognized as an extraordinary teacher and adviser. His reputation spread across the campus as he taught in the interdisciplinary College Within program and the Experimental College. Benj has fond recollections of those early days as a blend of hard work yet more relaxed times, when casual conversations and lunch with colleagues were the norm rather than the scheduled exception.

Benj was tenured and promoted to Associate Professor in 1971. His expertise in fracture mechanics and finite-element analysis led to the beginning of what has become an over thirty year association with the U.S. Department of Transportation Railroad Safety Program and especially the DOT Volpe Research Center in Cambridge, MA. Since 1972, Prof. Perlman has gone on to author or co-author almost 70 journal articles and conference proceedings on a wide variety of topics related to railroad safety. He is one of the nation's experts in this area and he and his colleagues have contributed significantly to the improved safety and performance of the country's passenger and freight rail system. Over the years, Benj Perlman has made the Volpe Center the Tufts Mechanical Engineering Department's annex in Cambridge, as he has advised a score of students who have done internships and completed graduate degrees and themselves

gone on to distinguished careers in transportation safety. This continues to the present. A recent DOT full-scale train crash safety test was witnessed by the Secretary of Transportation. He was pictured on the national news after the successful test, surrounded by Prof. Perlman's current and former students, who had planned and executed the test.

Benj Perlman's career continued to flourish through the 1980's and 1990's. He held visiting faculty positions during sabbatical leaves in 1975 and 1982 at the University of Sheffield in England and UMass-Amherst, respectively and he was promoted to full Professor in 1983. He dedicated particular effort to teaching advanced analysis methods and in enhancing research computing through the introduction of high-end graphic workstations, computer networks, and software acquisitions. He has been the director of the department's computational studio for more than a dozen years and in the process has trained a cadre of students, many of whom are now practicing experts in the use of computers in engineering analysis. Benj has always been an active citizen of Tufts, serving on, and often chairing, almost twenty different committees on topics ranging from admissions and financial aid to foreign programs to emergency action. He was the chair and ombudsman of the Grievance Panel and a leader of the Tufts AAUP chapter.

While his engineering research career and Tufts citizenship are impressive, Benjamin Perlman leaves his greatest mark on Tufts as a teacher and a mentor. His care and dedication are immediately obvious to students and his relationships with large numbers of them go on for decades including marriages, births, career changes, and even personal crises and decisions. University Professor and former Provost Sol Gittleman notes that engineering alumni often inquire about Prof. Perlman and recall how much he cared about them as students and advisees. The office hours posted on Benj's door have only been suggestions. If he is in, there are students sitting in his office seeking help or advice, no matter what the day or time. One of his unofficial advisees, named Sylvia Perlman, claims that she would not have been able to complete her PhD from Brandeis without his mentorship.

Together, Sylvia and Benj have raised and nurtured two accomplished children – Elizabeth, Tufts Class of 1996 and Simmons College graduate Class of 2003, who now lives in Chicago, and Deborah, who graduated with a BA from Haverford in 2000 and an MPP from UCLA in 2006, who now lives in Washington, DC. The girls tease their father about his ability and propensity to launch into a lecture on any subject of inquiry. Perhaps a stint as a game show contestant is included among Benj's retirement plans.

In all seriousness, it is with the greatest respect and friendship that we, his colleagues, offer Benjamin Perlman our gratitude and best wishes for a long, healthy, and joyful next stage in his life and career. In addition to his work at the Volpe Center, we hope that he continues to enjoy his summer sailing, biking, and hiking and also returns to Tufts for the occasional squash match and verbal sparring with Sol Gittleman and Vinnie Miraglia. We are sure that he and Sylvia look forward to having more time to enjoy each other's company and that of their extended family.

On behalf on the Department of Mechanical Engineering, I request that this resolution be spread upon the minutes of this faculty and that a copy of this resolution be provided to Prof. Perlman.

Presented by Vincent P. Manno