

**Ulf Grenander, 1923-2016**  
**Memorial Minute**  
**Brown University Faculty**  
**October 4, 2016**

Ulf Grenander died on May 12, 2016, at his home in Providence. He was born in 1923 in Vastervik, Sweden, a small coastal town where he maintained a house on the Baltic Sea that he and his wife, Emma-Stina, returned to almost every summer for more than forty years.

Ulf received his PhD from Stockholm University in 1950. After holding positions at Stockholm University, the University of Chicago, and the University of California at Berkeley, he moved permanently to Brown in 1966 as the L. Herbert Ballou University Professor. He advised 22 PhD students and wrote more than 100 papers and 14 books. His students and postdocs remember learning of the power of mathematics through studies of flocking birds, the structure and automated generation of musical compositions, and the shapes of everything from potatoes to normal and abnormal amygdalae and corpora collosa. His colleagues mourn the loss of his sweeping scientific vision, the power of his mathematics, and that creative energy that he never outgrew.

Ulf received numerous awards and honors, including election to the American Academy of Arts & Sciences, The Royal Academy of Sciences of Sweden, and the U.S. National Academy of Sciences. He was a recipient of the Arnberger Prize of the Royal Academy of Sciences of Sweden and an Honorary D.Sc. degree from the University of Chicago. He served as a member of the Swedish Nobel Prize Committee and was an Arrhenius Fellow, a Fellow of the Institute of Mathematical Statistics, a Guggenheim Fellow, and an Honorary Fellow of the Royal Statistical Society of London.

Ulf was known for his seminal contributions to time series analysis and to the theory of high-dimensional statistical inference, and for the remarkable marriage of stochastics and combinatorial structure that he called Pattern Theory. In an interview, he remarked “I refer to Pattern Theory as the intellectual adventure of my life.” He developed path-breaking methods for modeling complex stochastic systems and pioneered the use of Monte Carlo computational methods in Bayesian statistics. And he indulged a lifelong interest in applications, often with spectacular results, in diverse fields including computer vision and signal processing, the actuarial sciences, and the computer-aided diagnosis of abnormal anatomical structure.

In lasting recognition of his extraordinary influence and scientific achievements, the American Mathematical Society has established the “Ulf Grenander Prize in Stochastic Theory and Modeling.”

Ulf was a voracious reader, broadly knowledgeable in history and science, and fluent in many languages. He was a passionate sailor and a skilled do-it-yourself electrician, plumber, and carpenter. Almost single handedly he built entire wings of his summer home in Vastervik, which now accommodate frequent stays by his three children and six grandchildren, all of whom, in addition to his wife Emma-Stina, survive him.

Madam President, I move that the Faculty adopt this Minute by standing vote of respect, and that the Secretary of the Faculty be instructed to enter the Minute into the permanent records of the Faculty and to send copies of it to members of the immediate family.