

BIOGRAPHY

Thomas S. Ferguson

Thomas Shelburne Ferguson was born in Oakland, California, on December 14, 1929. He grew up in Alameda near San Francisco, where he received his high school education.

In 1947 he entered University of California at Berkeley to study Mathematics. He soon became interested in the three subjects to which he stayed faithful ever since: Probability, Statistics and Game Theory.

He earned his Ph.D. from Berkeley in 1956. His thesis consisted of two parts:

1. Best asymptotic normal estimation.
2. Existence of linear regression in structural equations.

His supervisor was Lucien Le Cam (see also the following note). Other distinguished names in the scientific environment in which Ferguson's talent was able to grow were Jerzy Neyman, Erich Lehmann, Michel Loève and David Blackwell. Blackwell (see also Blackwell's article in this volume) was fundamental in stimulating Tom's interest in game theory.

After his Ph.D., Tom first taught at UC Berkeley. One year later he joined the faculty of the Mathematics Department at UCLA, where he made his career as Assistant Professor, Associate Professor and Full Professor, and where he is, now retired, still active today in both the Mathematics and the newly founded Statistics Department. Over his career he held visiting positions at Princeton University, at UC Berkeley, at MIT, and at ULB Brussels, and spent sabbaticals at Washington University, Bell Laboratories, UC Berkeley and ULB Brussels.

Tom's scientific contributions to Probability, Statistics and Game Theory are widespread. His first book *Mathematical Statistics - A Decision Theoretic Approach* was published in 1967 (Academic Press). Right from the beginning, it has been a great success. Some people called the book a *classic* reference in Statistics when the book was still fairly young. In many ways, this book has stayed remarkably young. He has also written a book on large sample theory (Chapman and Hall, (1996)), edited and co-edited three books, and authored or co-authored some sixty articles. He has some twenty Ph.D. students to his credit, mainly at UCLA, but also at Cornell.

When asked what he himself considers his most important contribution Tom suggests it may be the proof (with David Blackwell) of the *Big Match*, a well-known problem in Game Theory. But some colleagues would first point to the Ferguson prior or the Ferguson-Dirichlet process, others may evoke the

Ferguson pairing property in combinatorial games, and again others would refer to his clever contributions to several optimal stopping problems.

His scientific contributions brought him early on a high visibility. He was a long-time associate editor of the Annals of Statistics, and was offered to be the Editor, which he had to refuse for technical reasons. A fellow of the IMS since 1967 he also served later on the council of the IMS. He is an associate editor of the Journal of Multivariate Analysis and of the Journal of Game Theory. In 1998 he received the International Francqui Chair of Science, Belgium's most prestigious distinguished professorship.

Tom met his wife Beatriz Rossello when he joined UCLA. She grew up in Geneva, Switzerland, and is also a mathematician with a Ph.D. in topology from UCLA. They have two sons, Marc and Christopher, both in the field of computer science.

Tom's favorite recreations have always been games, as befits a game theorist, chess in particular. Whatever involves questions of finding strategies catches Tom's interest. His other great love in his leisure time is music. He was a gifted musician from the start, with perfect pitch for instance, and soon acquired what would be a lifelong interest and proficiency in music. His musical experiences have included through the years leading the Berkeley marching band in the Rose Bowl, playing jazz on the flute in public bars "jam sessions", composing voice and string quartet music for a song by Shakespeare, reducing a couple of movements of Mahler symphonies to play them on the piano, and many others. He is well-informed about the theory, history and interpretation of music. He co-directs a group of madrigal singing friends and colleagues, and, in spite of constant pain in his fingers he still plays the piano everyday.

Tom is a modest and very likable person. But above all, he is a true scholar. To see this we mention just one symptom. He has been ignoring his bank's warning of keeping savings for two years on an interest-free account, while withholding at the same time a highly interesting paper from publication thinking about the question whether epsilon-optimality in some side-result of the paper might still be sharpened to optimality.

What has one thing got to do with the other? Well, the mentioned paper is on Optimal Investment Strategies.
