

Charles Stein honored on 90th birthday

Louis Chen and Wei-Liem Loh, National University of Singapore, report: A symposium in honor of Charles Stein took place at Stanford University on his 90th birthday, March 22, 2010. It was jointly organized by the Department of Statistics, Stanford University, and the Institute for Mathematical Sciences, National University of Singapore.

Charles Stein is considered to be one of the most original thinkers who made fundamental contributions to probability and statistics. He has received many honors and awards and is a member of the US National Academy of Sciences. He has given many invited lectures, notably as plenary speaker of the International Congress of Mathematicians, and as the Institute of Mathematical Statistics Wald Lecturer, Rietz Lecturer and Neyman Lecturer. He is currently Emeritus Professor of Statistics at Stanford University.

There were over 100 registered symposium participants who came from at least three continents. Also present were Charles' family members: his wife Margaret, his son Charles Jr., his daughter Sarah and his grandson. In accordance with Margaret's and Charles' wishes, the symposium was a half-day event.

Monday, March 22 was a beautiful sunny day and the symposium began at 1:30 pm with the welcome and opening addresses by Wing Wong, the Chairman of the Stanford Statistics Department, and Louis Chen, the Organizing Committee Chair. Louis Chen presented Charles with a pewter plate as a birthday gift from his institute. Inscribed on the plate was a poem written jointly by Louis and his colleague Y.K.Leong:

*A thinker original and independent,
In search of perfection invariant,
Found admissible wisdom's counterexample,
Made (fame, humility) exchangeable.*

This was followed by eight 25-minute talks presented in two consecutive sessions. The speakers and titles of the talks (in chronological order of presentation) were: **Larry Brown**, University of Pennsylvania: "*Stein's research on fixed sample optimality, apart from multivariate normal minimax shrinkage*"; **Morris Eaton**, University of Minnesota: "*On some contributions of Charles Stein to applications of invariance in statistics*"; **Carl Morris**, Harvard University: "*Shrinkage estimation*"; **Brad Efron**, Stanford University: "*Stein's unbiased risk estimate*"; **Peter Bickel**, University of California, Berkeley: "*Charles Stein: Semiparametric models and nonparametric methods*"; **David Siegmund**, Stanford University: "*Charles Stein and fixed precision sequential estimation*"; **Andrew Barbour**, University of Zurich: "*Stein's (magic) method*"; **Persi Diaconis**, Stanford University: "*Few but ripe: 35 years of following Charles Stein.*"

A special brochure was printed and distributed during the

symposium to mark the occasion. The brochure contained pictures of Charles and statements about him from his colleagues:

Persi Diaconis: *Charles Stein is a quiet man but when he talks, we listen. When Markov chains started to become popular (about 1980), he seemed interested as well. I asked him why and he answered as if it is obvious: "Of course, a reversible Markov chain is the same thing as an exchangeable pair." I knew that exchangeable pairs were a mainstay of Stein's Method. His statement changed my research direction. Twenty five years later, he added another sentence: "I always thought it would be a good idea to go through Feller's Volume One using the method of exchangeable pairs". Susan Holmes and I had been going through Feller with Bayesian eyes (I doubt Charles approves). That extra statement should keep me going for another twenty five years.*

Brad Efron: *Gustav Elfving once told me, "After I met Doob I wondered why anyone else would do probability, and after I met Charles I wondered why anyone else did mathematical statistics."*

Wing Wong: *Among the great mathematical statisticians of the 20th century, some left their mark by developing new theories and techniques, and others by discovering surprising results that shattered long-held beliefs. Charles Stein is unique in his ability to do both. He is truly a giant among giants.*

The symposium ended with a dinner held at the Schwab Residential Center (Stanford University). During the dinner, a mathematics genealogy chart of Charles Stein was presented to Charles by Wing Wong. A number of people (including Persi Diaconis, Ted Anderson, Ken Arrow, Brad Efron, Margaret Stein, Charles Stein Jr., Susan Holmes) shared their reminiscences about Charles Stein. It was indeed a happy and memorable occasion for Charles, his family and his friends.

More details of the symposium (including the slides of each of the eight talks) can be found at: <http://www-stat.stanford.edu/~ckirby/charles/Symposium2010.html>. Pictures taken during the symposium and the dinner at: <http://www2.ims.nus.edu.sg/Programs/010CharlesStein90/visualbox/index.htm>.



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