Sture Holm, Professor emeritus in Biostatistics has a broad interest within statistical inference theory and practice. During the years from the work with "A Simple Sequetially Rejective Multiple Test Procedures" published in Scandinavian Journal of Statistics 1979, the multiple inference theory has been a central interest, and it still is. A quite new field of interest is statistical methods for ranking of units, which is more and more used for instance in health care and educational contexts.

Degrees:

Master in Electrical Engineering, Chalmers 1961
Licentiate degree in Mathematical statistics and Numerical analysis, Chalmers 1964
Dissertation in Mathematical statistics, Chalmers 1973
Docent in Mathematical statistics, Chalmers 1974

Academic positions held:

Assistant professor in Mathematical Statistics at Chalmers 1967-1984
with interruption for
Professor in Mathematics, in particular Mathematical Statistics at Aalborg University Center 1979-1980
Professor in Statistics at School of Economics, Gothenburg University, 1984-1993
Professor in biostatistics, Gothenburg University and Chalmers, 1993-
Retired by age 2001

Among other academic services:

Chairman of the Swedish Statistical Association for two separate periods
President of the Nordic region of Biometric Society for one period.
Head of the Board of education in Science engineering for one period

Some years experience of industry engineering work and education at pre-academic level.

The following list of the most important publications is ordered after field of interest.

Text books available at present:

Biostatistisk analys. Studentlitteratur, Lund 2008, 327 pages. (in Swedish)

Statistisk försöksplanering och analys, 2011. Internet-book, can be free downloaded from www.bookboon.com (in Swedish)

Sequential analysis:

The Asymptotic Minimax Character of Sequential Binomial and Sign Tests. Ann Statist, 1, page 1139-1148 (1973)

Sequential Inversion Sum Tests. Scand J Statist, 2, page 1-10

Asymptotic Minimax Character of SPR Tests in One-parameter Exponential Classes. Scand J Statist, 2, page 49-60, (1975)

On a Conjecture about the Limiting Minimal Efficiency of Sequential Tests. Ann Statist, 5, page 375-378 (1977)

On the Optimality of Differentiated SPR Tests of Composite Hypotheses. Metrika, 32, page 15-33 (1985)

Sequential Likelihood Ratio Tests, Banach Center Publications, Vol. 16, page 193-232. (1985)

Nonparametric statistics including analysis of ordered categorical data and robustness

On Nonparametric Asymptotically Minimax Tests. Ann Math Statist, 42, page 497-508. (1971)

Discussion of: Another Look at Robustness by Peter Bickel, Scand J Stat 3, page 158-161 (1976)

Separation of systematic and random differences in ordinal rating scales. Stat in Medicine, 13, page 2437-2453 (1994) With Elisabeth Svensson.
See further numerous paper by her on the same and related subjects. She has later been professor at Örebro University and is now retired.

Multiple inference

A Simple Sequetially Rejective Multiple Test Procedures, Scand J Statist, 6, p 65-70 (1979)

A Stagewise Directional Test for the Normal Regression Situation. Proc. of the Sixth Conf. on Prob Theory, Brasov, page 103-106 (1979)

Multiple Test Unbiasedness. Proc of the Seventh Conf on Prob Theory. Brasov, page 183-193 (1982)

Estimation and Multiple Comparisons When There Are Missing Values with an Application in Immunology. Biometrical Journal, 40, page 269-279 (1998)

Multiple Confidence Sets Based on Stagewise Tests, J Amer Stat Ass, 94, p 489-495 (1999)

A Step-Down Test for Effects in Unreplicated Factorial Designs. Comm. Statist. Theor. Meth., 34, page 405-416. (2005). With Sigyn Mark and Tobias Adolfsson.

Mathematical statistics aspects of fatigue life

Generation of Random Processes for Fatigue Testing. Stoch proc and Their Appl, 20, page 149-156. (1985) With Professor Jacques de Maré now retired professor at Chalmers.

A Simple Model for Fatigue Life. IEEE Transactions on Reliability, 37, page 314-322. (1988). With Jacques de Maré.

Prediction of Fatigue Life Based on Level Crossings and a Stable Variable. Fatigue Fract Engng Mater Struct, 18, page 1089-1100 (1995) With Lars Josefsson, Jacques de Maré and Tomas Svensson

There are further works on this field by Jacques de Mare and Tomas Svensson.

Factorial experiments both location and dispersion parameters

Simultaneous estimation of location and dispersion in two-level fractional factorial designs. Journ Appl Statist, 26, page 235-242 (1999) With assistant professor Kerstin Wiklander

There are further works in this field by Kerstin Wiklander

Test and prediction in factorial models with independent variance estimate. Journ Appl Stat, 7, page 202-216. (2007) With Sigyn Mark

Bootstrap theory

Abstract Bootstrap Confidence intervals In Linear Models, Scand J Statist, 20, p 157-170 (1993)

Confidence sets of fixed size

Confidence sets of fixed size with predetermined confidence level. Commun Statist - Theory and Methods, 24, page 1521-1536

Confidence sets of fixed size for multinomial means. Journ Stat Plann and Inf, 82, page 229-236

Some further examples of theory and application

Implication and equivalence among statistical inference rules. Contributions to Probability and Statistics in Honour of Gunnar Blom. Lund (1985)
Critique of the Birnbaum theorem on likelihood principle

A Test of Independence for Stratigraphic Sequences wit Respect to Embedded Markov Chains. Mathematical Geology, 18, page 551-561 (1986) With Irene Isaksson and Rodney Stevens

Statistical methods for module problems. Tor, 21, page 205-210. (1987)
Statistical methods for analysis of existence of basic measure units e.g. basic weight units in archeological silver finds.

Fitting Age Related Reference Intervals to Ocular Axial Length in Children Using a Four-Parameter Curve Family. Biometrical Journal, 40, page 281-293 (1998) With Elisabeth Svensson, Kerstin Strömlandand Ann Hellström.

Vad gör dom i PISA egentligen? (in Swedish). Qvintensen, No 2, 2012, page 13-14. Critical view on the analysis performed in the big PISA investigation on student skills in different countries.