CENTURY OF NONPARAMETRIC STATISTICS

THROUGH THE EYES OF THE BOOKS

BY

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BOOKS CONTAINS LEARNING MATERIALS FOR THE STUDENTS AS WELL AS TEACHERS ALIKE. THEY ARE DOCUMENTS OF HISTORIC VALUE. AS DECADES PASS BY, NEW RESEARCH BRINGS NEW KNOWLEDGE WHICH THROUGH REPEATED SCREENING BECOMES MATERIALS FOR BOOKS TO GIVE GENERATIONS OF STUDENTS LEARNING MATERIALS. IT IS THE AUTHOR THAT GIVE LIFE TO THESE BOOKS BY WRITTING THEM INNOVATIVELY.

NONPARAMETRIC STATISTICS IS CONCERNED WITH THE TREATMENT OF STANDARD STATISTICAL PROBLEMS WHEN THE FAMILIAR ASSUMPTION OF NORMALITY IS REPLACED BY GENERAL ASSUMPTION CONCERNING THE DISTRIBUTIONAL FORM. ONE OF THE OLDEST NONPARAMETRIC METHOD IS THE "GOODNESS-OF-TEST" BY KARL PEARSON (1900). SINCE 1900 THERE HAVE BEEN DIVERSE DEVELOPMENTS IN THIS AREA OF RESEARCH. LET ME LIST THE DECADERS WITH DEVELOPMENTS

1900-1930:

GOODNESS-OF-FIT TEST BY KARL PEARSON (1900)

CRAMER’S GOODNESS-OF-FIT TEST (1928)
1930-1940 :

VON MISES (1931) TEST OF FIT

CRAMER-VON MISES TEST

KOLMOGOROV TEST (1933)

BINOMIAL TEST (1934) BY CLOPPER AND PEARSON, E.S.

PERMUTATION TEST BY FISHER (1935) \ PERMUTATION TEST BY PITMAN (1937/38) IN ANOVA, CORRELATION, Z-TEST FOR RANDOMIZED BLOCK AND LATIN SQUARES BY WELCH (1938)

RANK TEST BY FRIEDMAN (1937)

SMIRNOV TEST (1939)

KENDALL'S RANK CORRELATION (1938)

FISHER-YATES TEST (1938)

RUN TEST STUDY BY WALD-WOLFOWITZ (1940)
1941-1950:

WILCOXON TEST (1945,1947,1949)
SIGN TEST BY DIXON AND MOOD (1946)
TWO SAMPLE TEST OF MEANS BY FESTINGER, L (1946)
MANN-WHITNEY TEST (1947)
U-STATISTICS BY HOEFFDING (1948)
TEST OF INDEPENDENCE BY HOEFFDING (1948)
K-SAMPLE SLIPPAGE TEST BY MOSTELLER (1948)
NOTES ON NONPARAMETRIC STATISTICAL INFERENCE BY PITMAN (1948)
BOOK RANK CORRELATION METHODS BY KENDALL (1948)
OPTIMUM NONPARAMETRIC TEST BY HOEFFDING (1950)
1951-1960 :

SEVERAL SAMPLE PROBLEM BY KRUSKAL (1952)
RANKS IN ANOVA PROBLEM BY KRUSKAL-WALLIS (1952)
NORMAL SCORE TEST: MOSTPOWERFUL TEST BY TERRY (1952)
FRASER'S NORMAL SCORE TEST (1952),
POWER OF RANK TESTS BY LEHMANN(1953)
\ALSO DIXON (1954)
RENYI'S GOODNESS OF TEST (1953)
MEDIAN TEST BY MOOD (1950)
REVIEW OF GOODNESS-OF-FIT TEST BY GIHMAN, GNEDENKOSMIRNOV (1956)
CHERNOFF AND SAVAGE THEOREM (1958)
BOOK "NONPARAMETRIC STATISTICS : FOR THE BEHAVIORAL SCIENCES"
BY S.SIEGEL (1956)
BOOK "NONPARAMETRIC METHODS IN STATISTICS" 
BY DAS FRASER (1957)
BOOK TESTING STATISTICAL HYPOTHESES BY LEHMANN (1959) WILEY
RANK TEST FOR SEVERAL SAMPLE BY STEEL (1959)
A SURVEY OF SAMPLING FROM CONTAMINATED DISTRIBUTIONS BY JOHN TUKEY (1960)
1961-1970:
ESTIMATION BASED ON RANKS BY HODGES AND LEHMANN (1963)

ROBUST ESTIMATION OF LOCATION BY HUBER (1964)

ESTIMATION OF REGRESSION BASED ON RANK TESTS BY ADICHIE (1967)

CAPON TEST (1961), KOTZ TEST (1962), ANSARI-BRADLEY TEST (1960),

SAVAGE TEST (1956), SEN'S TEST (1963), REGRESSION TEST, MEDIAN-TYPE TEST, CHI-SQUARE TYPE TEST, TEST OF SYMMETRY

THEN COMES THE BOOK BY J. HAJEK AND Z. SIDAK: "THEORY OF RANK TESTS (1967)

IT TOOK TEN YEARS TO GET A BOOK OF IMPORTANCE LIKE THIS WITH COMPLETE DETAILS, THOUGH LIMITED TO LOCATION-SCALE MODELS AND CONTIGUOUS ALTERNATIVES ON THE IDEAS OF LECAM AND HAJEK EXCLUDING THE CHERNOFF-SAVAGE THEOREM AND ESTIMATION BASED ON RANK TEST STARTED BY HODGES AND LEHMANN. THIS IS VERY INNOVATIVE BOOK CONTAINING THE DERIVATION OF THE TESTS, EXACT DISTRIBUTIONS, LIMITING DISTRIBUTIONS UNDER NULL AND UNDER CONTIGUOUS ALTERNATIVES, STUDY OF POWERS OF TESTS.

GREAT BOOK.

ANALYTICAL STUDY OF THE PROPERTIES OF OPTIMALLY SPACED LINEAR ORDER STATISTICS BY SALEH (1966)

ASYMPTOTIC LINEARITY OF RANK STATISTICS IN REGRESSION PARAMETERS BY JURECKOVA (1969)-indeed a break through

BOOK A COURSE IN NONPARAMETRIC STATISTICS (1969) BY HAJEK
1971-1980

BOOK        NONPARAMETRIC METHODS IN MULTIVARIATE
IN ANALYSIS BY PURI AND SEN (1971)
BOOK        NONPARAMETRIC STATISTICAL METHODS
BY HOLLANDER AND WOLFE (1973,1999)
BOOK        NONPARAMETRICS: STATISTICAL METHODS
BASED ON RANKS BY LEHMANN (1975)

STRONG APPROXIMATION OF QUANTILE PROCESSES BY
CSORGO AND REVESZ (1978)

REGRESSION QUANTILES BY KOENKER AND BASSETT,
ECONOMETRIKA (1978)

NONPARAMETRIC ESTIMATION OF LOCATION AFTER A
PRELIMINARY TEST ON REGRESSION
BY SALEH AND SEN (1978)

BOOTSTRAP METHODS: ANOTHER LOOK AT JACKNIFE BY
EFRON (1979)

BOOK        INTRODUCTION TO THE THEORY OF
NONPARAMETRIC STATISTICS BY RANDELLES AND
WOLFE (1979)

APPROXIMATION THEOREMS OF MATHEMATICAL STATISTICS
BY SERFLING (1980)
1981-1990


BOOK

SEQUENTIAL NONPARAMETRICS BY SEN (1981)

STRONG APPROXIMATIONS IN PROBABILITY AND STATISTICS BY CSORGO AND REVESZ (1981)

ROBUST STATISTICS BY HUBER (1981)

STATISTICAL ESTIMATION: ASYMPTOTIC THEORY BY IBRAGIMOV AND KHAMINSKI (1981)

NONPARAMETRIC METHODS IN GENERAL LINEAR MODELS BY PURI AND SEN (1985)

STATISTICAL INFERENCE BASED ON RANKS BY HETTMANSPERGER (1984)

GOODNESS OF FIT TECHNIQUES BY D'AGISTINO AND STEPHEN (1986)

1991-2000

REGRESSION RANK SCORE AND RELATED REGRESSION QUANTILES BY GUTTENBRUNNER, C. AND JURECKOVA, J. (1992)


BOOK WEIGHTED EMPIRICAL PROCESSES IN DYNAMIC NONLINEAR MODELS BY H.L.KOUL (1992, 2002)

ASYMPTOTIC EFFICIECY OF NONPARAMETRIC TESTS BY NIKITIN (1995)

SEQUENTIAL ESTIMATION BY GHOSH, MUKHOPADHYAY AND SEN (1997)

LIMIT THEOREMS IN CHANGE POINT ANALYSIS BY CSORGO AND HORVATH (1997)

EFFICIENT AND ADAPTIVE ESTIMATION FOR SEMI-PARAMETRIC MODELS BY BICKEL, KLAASSEN, RITOV AND WELLNER (1998)

THEORY OF RANK TESTS (REVISED AND EXTENDED BY HAJEK, SIDAK AND SEN (1999)

ASYMPTOTIC STATISTICS BY VAN DER VAART (2000)
2000-2007

BOOK

NONPARAMETRIC GOODNESS-OF-FIT TESTING UNDER GAUSSIAN MODELS BY INGSTER AND SUSULINA (2002)

QUANTILE REGRESSION BY R. KOENKER (2005)

THEORY OF PRELIMINARY TEST AND STIEN-TYPE ESTIMATION WITH APPLICATIONS BY A.K. MD. EHSANES SALEH (2006)