

**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 NONPARMETRIC 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 DECADES 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 "NONPARMETRIC 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 LOCAION-SCALE MODELS AND CONTIGOUS 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 JACKKNIFE BY  
EFRON (1979)

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

APPROXIMATION THEOREMS OF MATHEMATICAL STATISTICS  
BY SERFLING (1980)

**1981-1990**

MINIMUM DISTANCE ESTIMATION:  
A BIBLIOGRAPHY BY PARR,W.C.(1981)

BOOK  
(1981)

SEQUENTIAL NONPARAMETRICS BY SEN

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

ROBUST STATISTICS BY HUBER (1981)

ESTIMATION:ASYMPTOTIC  
STATISTICAL

KHAMINSKI

THEORY BY IBRAGIMOV AND

(1981)

GENERAL

NONPARAMETRIC METHODS IN

(1985)

LINEAR MODELS BY PURI AND SEN

STATISTICAL INFERENCE BASED ON RANKS BY  
HETTMANSPERGER (1984)

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

R-ESTIMATION OF THE PARAMETERS OF AUTOREGRESSIVE  
AR[p] MODELS BY KOUL AND SALEH (1993)



**1991-2000**

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

AUTOREGRESSION QUANTILES AND RELATED RANK SCORE  
PROCESSES BY KOUL, HL AND SALEH,A.K.MD.E. (1995)

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)