

# Selected Bibliography of Statistical Literature 1930 to 1957: V. Frequency Functions, Moments, and Graduation

Lola S. Deming

(October 27, 1961)

This is the fifth in a series of bibliographies that deal with various specific subjects in the field of statistics. Over five hundred references and titles of important publications dealing with frequency functions, moments, and graduation are given.

The references presented here were extracted from a card file of abstracts clipped from two major reviewing journals in the general fields of probability and mathematical statistics. *Zentralblatt für Mathematik* was used for the years 1930 to 1939 and *Mathematical Reviews* was used from 1940 to 1957. Following the subject classification of the *Mathematical Reviews Annual Index*, the abstracts were classified and coded into categories of subject matter. This bibliography is on frequency functions, moments, and graduation.

The file of abstracts is maintained on a current basis in the NBS Statistical Engineering Laboratory. However, due to the delay in classifying, coding, and machine processing the references, this series of bibliographies extends only through 1957. The two reviewing journals cover a wide range of publications throughout the world but they do make a selection of material for review and in the case of mathematical statistics, they favor papers of theoretical significance over the ones which deal chiefly with applications. Consequently, complete coverage is not claimed but we believe that references to a useful number of writings of major statistical importance are given.

The references contain the following information taken directly from the abstracts:

*Author:* The author's surname, followed by initials only. In the case of multiple authorships, the journal reference appears with each author's name, but the title of the paper appears with the first author only. The symbol ♦ preceding the surname denotes multiple authorship.

*Title:* Exactly as in the reviewing journal. Titles of separately bound publications (books, reports, theses, etc.) are in italics, followed by the publisher.

*Reference to literature:* The name of the journal in italics, the number of the volume in bold face, the initial page number, and the date of publication in parentheses comprise the reference to the original article.

*Reference to the abstract:* The final symbols M (for *Mathematical Reviews*) and Z (for *Zentralblatt für Mathematik*) are followed by the volume number and page number of the reviewing journal in which the abstract appears.

## Frequency Functions, Moments, Graduation

Agnew, R. P., Estimates for global central limit theorems, *Ann. Math. Statist.* **28**, 26 (1957).

M **18**, 832

♦ Aitken, A. C., On Charlier's new form of the frequency function, *Proc. Roy. Soc., Edinburgh* **51**, 35 (1931).

Z **2**, 43

Aitken, A. C., Note on selection from a multivariate normal population, *Proc. Edinburgh Math. Soc.* **4**, 106 (1935).

Z **10**, 406

Aitken, A. C., A further note on multivariate selection, *Proc. Edinburgh Math. Soc.* **5**, 37 (1936).

Z **15**, 220

Aitken, A. C., On the independence of linear and quadratic forms in samples of normally distributed variates, *Proc. Roy. Soc., Edinburgh* **60**, 40 (1940).

M **1**, 346

♦ Aitken, A. C., On the estimation of statistical parameters, *Proc. Roy. Soc., Edinburgh A* **61**, 186 (1942).

M **4**, 25

Alter, D., Correction of sample moment bias due to lack of high contact and to histogram grouping, *Ann. Math. Statist.* **10**, 192 (1939).

Z **23**, 149

Amy, L., Étude statistique de l'expression,  $p_1/q_1 = p_2/q_2 = \dots = p_i/q_i = C^{te}$ , *J. Soc. Statist., Paris*, **81**, 39 (1940).

M **10**, 722

Andersson, W., A general formula for the normal mean errors of the coefficients in parabolic least squares graduation, *Skand. Aktuarietidskr.* **23**, 44 (1940).

M **2**, 109

Andersson, W., The binomial type of Gram's series, *Skand. Aktuarietidskr.* **24**, 203 (1941).

M **7**, 247

Andersson, W., On the Gram series on Pearson's system of frequency functions, *Skand. Aktuarietidskr.* **25**, 141 (1942).

M **7**, 248

Andersson, W., Short notes on Charlier's method for expansion of frequency functions in series, *Skand. Aktuarietidskr.* **27**, 16 (1944).

M **7**, 248

Andreoli, G., Statistica degli aggregati in una collettività e concentrazione rispetto a due caratteri, *Rend. Accad. Sci. Fis. Mat. Napoli* **10**, 160 (1940).

M **8**, 523

Andreoli, G., Statistica di configurazioni (Ricerche su coppie di variabili casuali in correlazione), *Rend. Accad. Sci. Fis. Mat. Napoli* **11**, 150 (1941).

M **8**, 523

- ◆ Andrews, F. C., (See Z. W. Birnbaum) *Ann. Math. Statist.* **20**, 458 (1949).
- ◆ Andrews, F. C., (See Z. W. Birnbaum) *Psychometrika* **15**, 191 (1950).
- Anis, A. A., On the moments of the maximum of partial sums of a finite number of independent normal variates, *Biometrika* **43**, 79 (1956). M **17**, 981
- Arley, N., On the distribution of relative errors from a normal population of errors. A discussion of some problems in the theory of errors, *Danske Vid. Selsk. Math.-Fys. Medd.* **18**, 62 pp. (1940). M **2**, 232
- Aroian, L. A., The fourth degree exponential distribution function, *Ann. Math. Statist.* **19**, 589 (1948). M **10**, 386
- ◆ Austen, A. E. W., Linear 'curves of best fit,' *Nature* **157**, 693 (1946). M **8**, 40
- Azorín, F., On peakedness and its measure, *Trabajos Estadística* **1**, 263 (1950). M **13**, 366
- Bailey, J. L., A table to facilitate the fitting of certain logistic curves, *Ann. Math. Statist.* **2**, 355 (1931). Z **4**, 265
- Banerjee, D. P., On the moments of the multiple correlation coefficient in samples from normal population, *J. Indian Soc. Agric. Statistics* **4**, 88 (1952). M **14**, 189
- Banerjee, D. P., On the application of operational calculus to the solution of distribution problems, *Acad. Roy. Belg. Bull. Cl. Sci.* (5) **42**, 437 (1956). M **17**, 1221
- ◆ Banerjee, K. S., (See K. R. Nair) *Sankhyā* **6**, 331 (1943).
- Baranow, L., *Grundbegriffe moderner statistischer Methodik. Erster Teil. Merkmalsverteilungen.* (S. Hirzel Verlag, Stuttgart, 1950). M **12**, 35
- Baranow, L., *Grundbegriffe moderner statistischer Methodik. Zweiter Teil. Zeitliche und kausale Zusammenhänge* (S. Hirzel Verlag, Stuttgart, 1950). M **12**, 35
- Bartlett, M. S., A modified probit technique for small probabilities, *Suppl. J. Roy. Statist. Soc.* **8**, 113 (1946). M **8**, 283
- Bartlett, M. S., Fitting a straight line when both variables are subject to error, *Biometrics* **5**, 207 (1949). M **11**, 190
- ◆ Barton, D. E., The conditions under which Gram-Charlier and Edgeworth curves are positive definite and unimodal, *Biometrika* **39**, 425 (1952). M **14**, 389
- Baten, W. D., Correction for the moments of a frequency distribution in two variables, *Ann. Math. Statist.* **2**, 309 (1931). Z **4**, 264
- Baten, W. D., Sampling from many parent populations, *Tōhoku Math. J.* **36**, 206 (1933). Z **6**, 268
- Baten, W. D., A formula for finding the skewness of the combination of two or more samples, *J. Amer. Statist. Assoc.* **30**, 95 (1935). Z **11**, 126
- Baticle, E., Sur une loi de probabilité a priori des paramètres d'une loi laplacienne, *C. R. Acad. Sci., Paris* **226**, 55 (1948). M **9**, 294
- Baumberger, A., *Über Verteilungsfunktionen in der Kollektivmasslehre*, Bern: Diss. 66 S. (1938). Z **22**, 371
- ◆ Bay, Z., Statistical theory of delayed-coincidence experiments, *Phys. Rev.* **100**, 1197 (1955). M **17**, 506
- Beale, F. S., On a certain class of orthogonal polynomials, *Ann. Math. Statist.* **12**, 97 (1941). M **2**, 282
- Béjar, J., Maxima and minima of the coefficients of asymmetry and kurtosis in finite populations, *Trabajos Estadística* **3**, 3 (1952). M **14**, 389
- ◆ Bellinson, H. R., (See J. von Neumann) *Ann. Math. Statist.* **12**, 153 (1941).
- ◆ Benard, A., The plotting of observations on probability paper, *Statistica (Rijswijk)* **7**, 163 (1953). M **15**, 807
- Benedetti, C., Sulla rappresentabilità di una distribuzione binomiale mediante una distribuzione *B* e vice-versa, *Metron* **18**, 121 (1956). M **18**, 606
- Benjamin, K., An I.B.M. technique for the computation of  $\Sigma X^2$  and  $\Sigma XY$ , *Psychometrika* **10**, 61 (1945). M **6**, 220
- Bennett, B. M., The cumulants of a sample mean from a finite population of first *N* integers, *Trabajos Estadística* **6**, 31 (1955). M **17**, 380
- Bennett, B. M., On the cumulants of the logarithmic generalized variance and variance ratio, *Skand. Aktuarietidskr.* **38**, 17 (1955). M **17**, 638
- Berger, A., Zur Theorie der Berechnung von Versicherungswerten für mehrere verbundene Leben, *Bl. Versich. Math.* **2**, 371 (1933). Z **6**, 175
- Berger, A., Über den Einfluss einer Änderung der Rechnungsgrundlagen auf die Prämienreserven, *Mitt. Vereinig Schweiz. Versich.-Math H* **32**, 7 (1936). Z **15**, 262
- Berkson, J., Approximation of chi-square by "probits" and by "logits," *J. Amer. Statist. Assoc.* **41**, 70 (1946). M **7**, 462
- Bernstein, F., Säkulare Sterblichkeitsänderung und Prinzip der Gewinnverteilung mittels einer Höcknerschen Überschusskonstanten  $\lambda$ , *Bl. Versich. Math.* **2**, 390 (1933). Z **6**, 175
- Bhattacharyya, B. C., The use of McKay's Bessel function curves for graduating frequency distributions, *Sankhyā* **6**, 175 (1942). M **5**, 126
- Bhattacharyya, B. C., On an aspect of Pearsonian system of curves and a few analogies, *Sankhyā* **6**, 415 (1944). M **6**, 8
- Bhattacharyya, B. C., On a measure of divergence between two multinomial populations, *Sankhyā* **7**, 401 (1946). M **8**, 282
- Birnbaum, Z. W., On random variables with comparable peakedness, *Ann. Math. Statist.* **19**, 76 (1948). M **9**, 452
- ◆ Birnbaum, Z. W., On sums of symmetrically truncated normal random variables, *Ann. Math. Statist.* **20**, 458 (1949). M **11**, 41
- ◆ Birnbaum, Z. W., On the effect of selection performed on some coordinates of a multi-dimensional population, *Psychometrika* **15**, 191 (1950). M **12**, 36
- Blanc, C., Évaluation stochastique de l'erreur dans les formules d'intégration numérique, *C. R. Acad. Sci., Paris* **233**, 726 (1951). M **13**, 368

- Blanc, C., Évaluation stochastique de l'erreur dans les formules d'interpolation, *C. R. Acad. Sci., Paris* **233**, 683 (1951). M **13**, 368
- Blanche, E. E., *A systematic analysis of frequency distributions by the Edgeworth method*, (Thesis, University of Illinois, 1941). M **11**, 258
- Blümel, H., Bemerkungen über die Sheppardsche Korrektur, *Arch. Math. Wirtsch. U. Sozialforsch.* **5**, 39 (1939). Z **20**, 383
- Boas, R. P., The Charlier B-series, *Trans. Amer. Math. Soc.* **67**, 206 (1949). M **11**, 173
- Boas, R. P., Representation of probability distributions by Charlier series, *Ann. Math. Statist.* **20**, 376 (1949). M **11**, 190
- Boldrini, M., Sulla teoria della media tipica, *Pont. Acad. Sci. Comment.* **10**, 1 (1946). M **10**, 50
- Bonferroni, Co., I valori mediani in una distribuzione continua, *Statistica (Bologna)* **15**, 3 (1955). M **16**, 1037
- Bortkiewicz, L., The relations between stability and homogeneity, *Ann. Math. Statist.* **2**, 1 (1931). Z **4**, 408
- Bose, P., On the reduction formulae for the incomplete probability integral of the multiple correlation coefficient of the second kind, *Science and Culture* **7**, 171 (1941). M **5**, 42
- Bose, P., Certain moment calculations connected with multivariate normal populations, *Science and Culture* **7**, 411 (1942). M **5**, 42
- Bose, P. K., Corrigenda: On the construction of incomplete probability integral tables of the classical  $D^2$ -statistic, *Sankhyā* **11**, 96 (1951). M **13**, 52
- ◆ Bos-Levenbach, E. C., (See A. Benard) *Statistica (Rijswijk)* **7**, 163 (1953).
- Brelot, M., Sur l'influence des erreurs de mesure en statistique, *J. Math. pures appl.* **15**, 113 (1936). Z **14**, 121
- Brelot, M., Sur l'influence des erreurs de mesure en statistique et biométrie, *Extrait Bull. Trav. Publ. Stat. Aquicult. et Pêche Castiglione*, 44 pp. (1936). Z **14**, 169
- Brethouwer, D. H. G., The hyperbolic law of errors, *Statistica (Rijswijk)* **2**, 55 (1948). M **11**, 258
- Broadbent, S. R., Lognormal approximation to products and quotients, *Biometrika* **43**, 404 (1956). M **18**, 340
- Brown, G. M., On sampling from compound populations, *Ann. Math. Statist.* **4**, 288 (1933). Z **8**, 217
- Brown, L. M., Some parameters of sampling distributions simply obtained, *Edinburgh Math. Notes No.* **34**, 8 (1944). M **6**, 91
- ◆ Bruner, N., (See G. R. Davies) *J. Amer. Statist. Assoc.* **38**, 63 (1943).
- Bula, C. A., Das Problem der Interpolation in der Statistik, *Rev. Un. Mat. Argentina* **2**, 1 (1938). Z **22**, 63
- Bula, C. A., Theory and evaluation of central moments in two dimensions. Sheppard's corrections. The simpler method of Mitropolsky, *Rev. Un. Mat. Argentina* **5**, 1 (1940). M **2**, 231
- Bula, C. A., Calculation of frequency surfaces. Experimental verification and comparison of the method of marginal functions with that of the 15 constants of Karl Pearson, *Union Mat. Argentina, Publ. No.* **10**, 109 pp. (1940). M **3**, 170
- Burkhardt, F., Zur Ableitung der Sheppardschen Korrektur, *Arch. Math. Wirtsch. u. Sozialforsch.* **5**, 127 (1939). Z **21**, 146
- Burr, I. W., Cumulative frequency functions, *Ann. Math. Statist.* **13**, 215 (1942). M **4**, 19
- Burr, I. W., Calculation of exact sampling distribution of ranges from a discrete population, *Ann. Math. Statist.* **26**, 530 (1955). M **17**, 278
- Burrau, C., The half-invariants of the sum of two typical laws of errors, with an application to the problem of dissecting a frequency curve into components, *Skand. Aktuarietidskr.* **17**, 1 (1934). Z **8**, 368
- Burrau, O., The mean error as a measure of uncertainty, *Mat. Tidsskr. B* **1943**, 9 (1943). M **7**, 130
- Burrau, O., On the determination of the mean error, *Mat. Tidsskr. B* **1945**, 97 (1945). M **7**, 211
- Busk, T., *Some remarks on the computation of the mean error for values graduated by the method of least squares*, (Den Danske Aktuarforening, Copenhagen, 1943). M **8**, 40
- Campbell, J. T., Factorial moments and frequencies of Charlier's type B, *Proc. Edinburgh Math. Soc.* **3**, 99 (1932). Z **5**, 213
- Cansado, E., Integral de Stieltjes-Lebesgue y sus Aplicaciones a la Estadística, *Memorias de Matemática Instituto Jorge Juan, No.* **3**, 66 pp. (Madrid, 1946). M **8**, 393
- Cansado, E., On the factorial characteristic function, *Revista Mat. Hisp. Amer.* **7**, 159 (1947). M **9**, 283
- Cansado, E., On the compound and generalized Poisson distributions, *Ann. Math. Statist.* **19**, 414 (1948). M **10**, 552
- Cansado, E., On the application of the moment generating function to unrestricted random sampling, *Trabajos Estadística* **1**, 117 (1950). M **13**, 570
- Carpenter, O., Note on the extension of Craig's theorem to non-central variates, *Ann. Math. Statist.* **21**, 455 (1950). M **12**, 621
- Carver, H. C., Fundamentals of sampling, *Ann. Math. Statist.* **1**, 101 (1930).
- Carver, H. C., The fundamental nature and proof of Sheppard's adjustments, *Ann. Math. Statist.* **7**, 154 (1936).
- Castellano, V., Sulle relazioni tra curve di frequenza e curve di concentrazione e sui rapporti di concentrazione corrispondenti a determinate distribuzioni, *Metron* **10**, 3 (1933). Z **6**, 267
- Castellano, V., Recente letteratura sugli indici di variabilità, *Metron* **12**, 101 (1935). Z **12**, 411
- Castellano, V., Sugli indici relativi di variabilità e sulla concentrazione dei caratteri con segno, *Metron* **13**, 31 (1937). Z **16**, 67
- Castellano, V., Über die Wahrscheinlichkeit, dass zwei Stichproben voneinander mehr als zwei gegebene Verteilungen abweichen. Anhang I zu dem Aufsatz von C. Gini, Die Messung der Ungleichheit zweier Verteilungen, *Arch. Math. Wirtsch. u. Sozialforsch.* **3**, 184 (1937). Z **17**, 274

- Castellano, V., Sulle variabili divise in intervalli e le correzioni della media aritmetica e della varianza, *Statistica (Bologna)* **16**, 151 (1956). M **18**, 520
- Castoldi, L., Formule ricorrenti per il calcolo dei cumulanti e dei momenti di una distribuzione statistica a partire dai corrispondenti momenti fattoriali, *Rend. Sem. Fac. Sci. Univ. Cagliari* **24**, 157 (1955). M **17**, 52
- Cell, J. W., An accurate method for obtaining the derivative function from observational data, *Amer. Math. Monthly* **46**, 87 (1939). Z **21**, 242
- Chakrabarti, M. C., A note on skewness and kurtosis, *Bull. Calcutta Math. Soc.* **38**, 133 (1946). M **8**, 393
- Chakrabarti, M. C., On a special case of the distribution law of the mean square successive difference, *Bull. Calcutta Math. Soc.* **39**, 15 (1947). M **9**, 195
- Chakrabarti, M. C., On the inadequacy of measuring the peakedness of a distribution curve by the standardized fourth moment, *Bull. Calcutta Math. Soc.* **39**, 154 (1947). M **10**, 50
- ♦Chakraborty, P. N., (See C. Chandra Sekar) *Sankhyā* **12**, 141 (1952).
- Chanda, K. C., On some moment properties when two polynomials have independent distributions, *Calcutta Statist. Assoc. Bull.* **6**, 40 (1955). M **16**, 1131
- ♦Chandra Sekar, C., On the concept and use of orthogonal semi-polynomials, *Sankhyā* **12**, 141 (1952). M **14**, 995
- Chapman, D. G., Estimating the parameters of a truncated gamma distribution, *Ann. Math. Statist.* **27**, 498 (1956). M **17**, 1221
- Charnley, F., The variances of the means and the variance of the slope of the line of relation of a linear, composite, bivariate distribution, *Canadian J. Research, Sect. A* **20**, 6 (1942). M **3**, 172
- Cheng, T. T., A simplified formula for mean difference, *Coll. Papers Sci. Engin. Nat. Univ. Amoy* **1**, 69 (1943). M **8**, 160
- Cheng, T. T., A simplified formula for mean difference, *J. Amer. Statist. Assoc.* **39**, 240 (1944). M **6**, 91
- Chepelevski, A., Sur la critique des courbes de fréquence de Pearson, *J. Cycle Math.* **2**, 1 (1932). Z **6**, 268
- Choudhary, N. A., A generalization of binomial, Lexian and Poisson distributions, *Math. Student* **15**, 8 (1948). M **10**, 386
- ♦Chu, J. T., The moments of the sample median, *Ann. Math. Statist.* **26**, 593 (1955). M **17**, 502
- Chu, J. T., Errors in normal approximations to the  $t$ ,  $\tau$ , and similar types of distribution, *Ann. Math. Statist.* **27**, 780 (1956). M **18**, 423
- Churchill, E., Information given by odd moments, *Ann. Math. Statist.* **17**, 244 (1946). M **8**, 153
- Cisbani, R., Contributi alla teoria delle medie, *Metron* **13**, 23 (1938). Z **18**, 266
- Cisbani, R., Contributi alla teoria delle medie. II, *Metron* **13**, 3 (1938). Z **20**, 148
- Cochran, W. G., The distribution of the largest of a set of estimated variances as a fraction of their total, *Ann. Eugenics* **11**, 47 (1941). M **3**, 171
- Cohen, A. C., On estimating the mean and standard deviation of truncated normal distributions, *J. Amer. Statist. Assoc.* **44**, 518 (1949). M **11**, 258
- Cohen, E. R., The basis for the criterion of least squares, *Rev. Modern Physics* **25**, 709 (1953). M **15**, 543
- Cohen, E. R., Standard errors of the residues in a least-squares analysis, *Phys. Rev.* **101**, 1641 (1956). M **17**, 981
- Cook, M. B., Bi-variate  $k$ -statistics and cumulants of their joint sampling distribution, *Biometrika* **38**, 179 (1951). M **13**, 142
- Craig, C. C., On a property of the semi-invariants of Thiele, *Ann. Math. Statist.* **2**, 154 (1931). Z **5**, 256
- Craig, C. C., A new exposition and chart for the Pearson system of frequency curves, *Ann. Math. Statist.* **7**, 16 (1936). Z **13**, 359
- Craig, C. C., Sheppard's corrections for a discrete variable, *Ann. Math. Statist.* **7**, 55 (1936). Z **15**, 33
- Craig, C. C., The product semi-invariants of the mean and a central moment in samples, *Ann. Math. Statist.* **11**, 177 (1940). M **1**, 346
- Craig, C. C., A note on Sheppard's corrections, *Ann. Math. Statist.* **12**, 339 (1941). M **3**, 171
- Craig, C. C., On frequency distributions of the quotient and of the product of two statistical variables, *Amer. Math. Monthly* **49**, 24 (1942). M **3**, 171
- Cramér, H., Deux conférences sur la théorie des probabilités, *Skand. Aktuarietidskr.* **24**, 34 (1941). M **3**, 169
- Cramér, H., *Mathematical methods of statistics*, (Princeton University Press, Princeton, N.J., 1946). M **8**, 39
- Crow, J. F., A chart of the  $\chi^2$  and  $t$  distributions, *J. Amer. Statist. Assoc.* **40**, 376 (1945). M **7**, 20
- Curtiss, J. H., Generating functions in the theory of statistics, *Amer. Math. Monthly* **48**, 374 (1941). M **3**, 5
- Curtiss, J. H., A note on the theory of moment generating functions, *Ann. Math. Statist.* **13**, 430 (1942). M **4**, 163
- D'Addario, R., Un metodo per la rappresentazione analitica delle distribuzioni statistiche, *Atti. Ist. Naz. Assicuraz.* **12**, 93 (1940). M **11**, 190
- Daniels, H. E., A property of the distribution of extremes, *Biometrika* **32**, 194 (1941). M **3**, 171
- Darmois, G., Détermination de la moyenne et de la dispersion dans le cas des épreuves dépendantes, *Assoc. Franc. Advancement Sci.*, pp. 34-37 (55th session, Nancy, 1931). Z **6**, 121
- David, F. N., On Neyman's "smooth" test for goodness of fit. I. Distribution of the criterion  $\psi^2$  when the hypothesis tested is true, *Biometrika* **31**, 191 (1939). M **1**, 153
- David, F. N., *Probability theory for statistical methods*, (Cambridge University Press, 1949). M **10**, 613
- ♦David, F. N., The probability integral transformation when the variable is discontinuous, *Biometrika* **37**, 42 (1950). M **12**, 115
- ♦David, F. N., Reciprocal Bernoulli and Poisson variables, *Metron* **18**, 77 (1956). M **18**, 520
- David, H. A., An operational method for the deriva-

- tion of relations between moments and cumulants, *Metron* **16**, 41 (1952). M **14**, 486
- David, H. A., Moments of negative order and ratio-statistics, *J. Roy. Statist. Soc., Ser. B* **17**, 122 (1955). M **17**, 278
- ♦ Davies, G. R., A second moment correction for grouping, *J. Amer. Statist. Assoc.* **38**, 63 (1943). M **4**, 221
- Dehalu, M., Sur la démonstration de la formule de K. Pearson dans le cas du schéma simple des urnes, *Bull. Soc. Roy. Sci. Liège* **11**, 146 (1942). M **7**, 20
- ♦ Dehara, S., (See T. Kudō) *J. Gakugei Tokushima U. Nat. Sci. Math.* **6**, 75 (1955).
- Delgleize, A., Sur le schéma simple des urnes, *Bull. Soc. Roy. Sci. Liège* **11**, 398 (1942). M **7**, 20
- Delgleize, A., Sur les courbes de fréquence, *Bull. Soc. Roy. Sci. Liège* **12**, 264 (1943). M **7**, 20
- Della Riccia, A., Courbes de fréquence et courbes de distribution. Une généralisation de la loi de Gauss, *Ann. Soc. Sci. Bruxelles A* **54**, 133 (1934). Z **10**, 313
- ♦ Deming, W. E., On a least squares adjustment of a sampled frequency table when the expected marginal totals are known, *Ann. Math. Statist.* **11**, 427 (1940). M **2**, 232
- Deming, W. E., *Statistical adjustment of data*, (John Wiley & Sons Inc., N.Y., 1943). M **5**, 208
- ♦ Dennis, K. E., (See D. E. Barton) *Biometrika* **39**, 425 (1952).
- Derksen, J. B. D., On some infinite series introduced by Tschuprow, *Ann. Math. Statist.* **10**, 380 (1939). M **1**, 152
- Dieulefait, C. E., Verallgemeinerung der Pearsonschen Kurven, *An. Soc. Ci. Argent.* **115**, 194 (1933). Z **9**, 314
- Dieulefait, C. E., Généralisation des courbes de K. Pearson, *Metron* **12**, 95 (1935). Z **11**, 361
- Dieulefait, C., On the Poisson-Charlier series, *An. Soc. Ci. Argentina* **128**, 10 (1939). M **1**, 143
- Dieulefait, C., On a result of Prof. Beppo Levi and its relation to the problem of frequency surfaces, *An. Soc. Ci. Argentina* **129**, 249 (1940). M **3**, 171
- Dodd, E. L., Classification of sizes or measures by frequency functions, *J. Amer. Statist. Assoc.* **26**, 227 (1931). Z **2**, 280
- Dodd, E. L., Frequency laws showing stability with reference to the geometric mean and other means, *Bull. Amer. Math. Soc.* **38**, 398 (1932). Z **5**, 111
- Dodd, E. L., Internal and external means arising from the sealing of frequency functions, *Ann. Math. Statist.* **8**, 12 (1937). Z **16**, 365
- Dodd, E. L., Definitions and properties of the median, quartiles, and other positional means, *Amer. Math. Monthly* **45**, 302 (1938). Z **18**, 415
- Dodd, E., Some internal and external means arising from the location of frequency distributions, *Acta. Univ. Asiae Mediae* **23**, 8 pp. (1939). M **8**, 523
- Dodd, E. L., The substitutive mean and certain subclasses of this general mean, *Ann. Math. Statist.* **11**, 163 (1940). M **1**, 345
- Dodd, E. L., The cyclic effects of linear graduations persisting in the differences of the graduated values, *Ann. Math. Statist.* **12**, 127 (1941). M **3**, 10
- Dodd, E. L., Some generalizations of the logarithmic mean and of similar means of two variates which become indeterminate when the two variates are equal, *Ann. Math. Statist.* **12**, 422 (1941). M **3**, 170
- Dodd, E. L., *Lectures on probability and statistics*, (University of Texas Press, Austin, Texas, 1945). M **7**, 130
- Dommanget, J., *Etude des droites caractérisant soit une liaison fonctionnelle, soit une dépendance statistique entre deux variables*, Publ. Sci. Tech. Ministère de l'Air, Technical Notes No. 52, 29-39, Paris (1955). M **16**, 1040
- Doob, J. L., Probability and statistics, *Trans. Amer. Math. Soc.* **36**, 759 (1934). Z **10**, 173
- Dressel, P. L., Statistical semivariants and their estimates with particular emphasis on their relation to algebraic invariants, *Ann. Math. Statist.* **11**, 33 (1940). M **1**, 249
- Dressel, P. L., A symmetric method of obtaining unbiased estimates and expected values, *Ann. Math. Statist.* **12**, 84 (1941). M **2**, 233
- Drion, E. F., Estimation of the parameters of a straight line and of the variances of the variables, if they are both subject to error, *Nederl. Akad. Wetensch. Proc. Ser. A* **54**, 256 (1951). M **13**, 144
- Dugué, D., Sur certaines composantes des lois de Cauchy, *C. R. Acad. Sci., Paris* **213**, 718 (1941). M **5**, 124
- Dugué, D., Sur un nouveau type de courbe de fréquence, *C. R. Acad. Sci., Paris* **213**, 634 (1941). M **5**, 126
- Dumas, M., Sur les courbes de fréquence de K. Pearson, *Biometrika* **35**, 113 (1948). M **9**, 599
- Durbin, J., Errors in variables, *Rev. Inst. Internat. Statist.* **22**, 23 (1954). M **17**, 52
- Dwyer, P. S., Moments of any rational integral isobaric sample moment function, *Ann. Math. Statist.* **8**, 21 (1937). Z **16**, 313
- Dwyer, P. S., Combined expansions of products of symmetric power sums and of sums of symmetric power products with application to sampling, *Ann. Math. Statist.* **9**, 1 (1938). Z **18**, 415
- Dwyer, P. S., The cumulative numbers and their polynomials, *Ann. Math. Statist.* **11**, 66 (1940). M **1**, 345
- Dwyer, P. S., Grouping methods, *Ann. Math. Statist.* **13**, 138 (1942). M **4**, 24
- Dwyer, P. S., Combinatorial formulas for the  $r$ th standard moment of the sample sum, of the sample mean, and of the normal curve, *Ann. Math. Statist.* **11**, 353 (1940). M **2**, 109
- Dyson, F. J., A note on kurtosis, *J. Roy. Statist. Soc.* **106**, 360 (1943). M **6**, 162
- Edgett, G. L., Frequency distributions with given statistics which are not all moments, *Metron* **9**, 25 (1931). Z **2**, 280
- Ëidel'nant, M. I., Round-off errors, *Akad. Nauk Uzbek. SSR. Trudy Inst. Mat. Meh.* **11**, 63 (1953). M **17**, 871
- ♦ Eisenring, M., (See H. Jecklin) *Mitt. Verein. Schweiz. Versich.-Math.* **47**, 123 (1947).

- Elderton, W. P., Adjustments for moments of J-shaped curves, *Biometrika* **25**, 179 (1933).  
 Elfving, G., An expansion principle for distribution functions with application to Student's statistic, *Ann. Acad. Sci. Fenn. Ser. A.* **1**, No. **204**, 8 pp. (1955). M **17**, 981  
 Epstein, B., Some applications of the Mellin transform in statistics, *Ann. Math. Statist.* **19**, 370 (1948). M **10**, 552  
 Evans, W. D., Note on the moments of a binomially distributed variate, *Ann. Math. Statist.* **11**, 106 (1940). M **1**, 247  
 Evans, W. D., The standard error of percentiles, *J. Amer. Statist. Assoc.* **37**, 367 (1942). M **4**, 103  
 Eyraud, H., Valori osservati di una variabile casuale e loro perequazione, *Giorn. Ist. Ital. Attuari.* **6**, 243 (1935). Z **12**, 113  
 Eyraud, H., Sur certaines décompositions en aléatoires imaginaires, *C. R. Acad. Sci. Paris* **206**, 723 (1938). Z **18**, 155  
 Eyraud, H., Les lois d'erreurs dans deux dimensions, *Ann. Univ. Lyon, Sect. A* **2**, 19 (1939). M **8**, 282  
 Faleschini, L., Su alcune proprietà dei momenti impiegati nello studio della variabilità, asimmetria e curtosi, *Statistica (Milano)* **8**, 503 (1948). M **11**, 445  
 Feldheim, E., Sul rapporto fra la media dei quadrati di più errori e il quadrato della media dei loro valori assoluti, *Atti. Accad. Sci. Torino Cl. Sci. Fis. Mat. Nat.* **75**, 296 (1940). M **3**, 6  
 Feldman, H. M., Mathematical expectation of product moments of samples drawn from a set of infinite populations, *Ann. Math. Statist.* **6**, 30 (1935). Z **11**, 317  
 Feraud, L., Problème d'analyse statistique à plusieurs variables, *Ann. Univ. Lyon, Sect. A* **5**, 42 (1942). M **8**, 282  
 Feraud, L., Statistique mathématique: Distributions de produits, intérieurs, *C. R. Séances Soc. Phys. Hist. Nat., Genève* **60**, 196 (1943). M **7**, 212  
 Féron, R., De l'information, *C. R. Acad. Sci., Paris* **230**, 1495 (1950). M **11**, 732  
 de Finetti, B., Sui metodi proposti per il calcolo della differenza media, *Metron* **9**, 47 (1931). Z **2**, 199  
 Finney, D. J., The joint distribution of variance ratios based on a common error mean square, *Ann. Eugenics* **11**, 136 (1941). M **3**, 172  
 Finney, D. J., *Probit Analysis. A Statistical Treatment of the Sigmoid Response Curve* (Cambridge Univ. Press, England, or Macmillan Co., New York, 1947). xiii+256 pp. M **8**, 592  
 Fisher, R. A., Professor Karl Pearson and the method of moments, *Ann. Eugenics* **7**, 303 (1937).  
 Fisher, R. A., The negative binomial distribution, *Ann. Eugenics* **11**, 182 (1941). M **4**, 26  
 Fisher, R. A., Note on the efficient fitting of the negative binomial, *Biometrics* **9**, 197 (1953). M **14**, 1104  
 Fisher, W. D., On a pooling problem from the statistical decision viewpoint, *Econometrica* **21**, 567 (1953). M **15**, 452  
 Fogelson, S., Quelques remarques sur les courbes de concentration, *Ann. Univ. Lyon, Sect. A, Sci. Math. et Astron.* **1**, 69 (1936). Z **15**, 220  
 Fortunati, P., Appunti sulle misure statistiche della variabilità, *Statistica (Bologna)* **12**, 297 (1952). M **14**, 568  
 Franckx, E., Sur les fonctions de fréquence de  $n$  variables. Relation générale entre les moments et les semi-in-variants, *Aktuár. Vedy* **6**, 163 (1937). Z **17**, 77  
 Fréchet, M., Sur une limitation très générale de la dispersion de la médiane, *J. Soc. Statist. Paris* **81**, 67 (1940). M **10**, 722  
 Fréchet, M., Sur la correspondance entre certaines lois d'erreurs et certaines définitions de la distance, *Revue Sci.* **79**, 3 (1941). M **7**, 20  
 Fréchet, M., Sur une loi de probabilité considérée par J. F. Steffensen, *Skand. Aktuarietidskr.* **24**, 214 (1941). M **7**, 211  
 Fréchet, M., A general method of constructing correlation indices, *Proc. Math. Phys. Soc. Egypt* **3**, 13 (1946). M **8**, 592  
 Fréchet, M., Definition of the probable deviation, *Ann. Math. Statist.* **18**, 288 (1947). M **8**, 592  
 Fréchet, M., Les valeurs typiques d'ordre nul ou infini d'un nombre aléatoire, *Rev. Inst. Internat. Statistique* **16**, 1 (1948). M **11**, 40  
 ♦Freeman, M. F., Transformations related to the angular and the square root, *Ann. Math. Statist.* **21**, 607 (1950). M **12**, 344  
 Fuhrich, J., Über eine allgemeine Methode zur mathematischen Analyse empirischer Reihen, *Mh. Math. Phys.* **44**, 307 (1936). Z **15**, 73  
 Gabriel, F., Graphisch-rechnerisches Verfahren zur schnellen Ermittlung von Trefferprozenten unter einfachen und erschwerten Bedingungen. "Trefferspinne." *Luftfahrtforschung* **19**, 231 (1942). M **4**, 103  
 Gaddum, J. H., Lognormal distributions, *Nature* **156**, 463 (1945). M **7**, 211  
 Gallina, G., Un teorema sul problema delle prove ripetute, *Boll. Un. Mat. Ital.* **11**, 206 (1932). Z **5**, 213  
 Galvani, L., Sulle curve di concentrazione relative a caratteri non limitati e limitati, *Metron* **10**, 61 (1932). Z **5**, 256  
 ♦Geary, R. C., *Tests of normality*, (Cambridge University Press, 1938) 15 pp. Z **19**, 74  
 Geary, R. C., Inherent relations between random variables, *Proc. Roy. Irish Acad. Sect. A* **47**, 63 (1942). M **4**, 21  
 Geiringer, H., Une méthode générale de statistique théorique, *C. R. Acad. Sci., Paris* **198**, 420 (1934). Z **8**, 265  
 Geiringer, H., Applications d'une nouvelle méthode générale de statistique théorique, *C. R. Acad. Sci., Paris* **198**, 696 (1934). Z **8**, 368  
 Geiringer, H., Une nouvelle méthode de statistique théorique (problèmes à deux dimensions), *Bull. Acad. Roy. Belg. V. s.* **21**, 157 (1935). Z **11**, 218  
 Geiringer, H., Une nouvelle méthode de statistique théorique (problèmes à deux dimensions), II, *Bull. Acad. Roy. Belg. V. s.* **21**, 307 (1935). Z **11**, 218

- Geiringer, H., Methoden der theoretischen Statistik, *Compositio Math.* **2**, 276 (1935). Z **12**, 112
- Geiringer, H., Zur Verwendung der mehrdimensionalen Normalverteilung in der Statistik, *Mh. Math. Phys.* **43**, 425 and **44**, 97 (1936). Z **14**, 222
- Geiringer, H., A new explanation of nonnormal dispersion in the Lexis theory, *Econometrica* **10**, 53 (1942). M **3**, 173
- Geisser, S., A note on the normal distribution, *Ann. Math. Statist.* **27**, 858 (1956). M **18**, 240
- Georgescu, N., Further contributions to the sampling problem, *Biometrika* **24**, 65 (1932). Z **5**, 111
- Gini, C., Di una formula comprensiva delle medie, *Metron* **13**, 3 (1938). Z **18**, 414
- ♦Gini, C., Sulle proprietà delle medie potenziate e combinatorie, *Metron* **13**, 21 (1938). Z **20**, 148
- Gini, C., Le medie dei campioni, *Metron* **15**, 13 (1949). M **11**, 446
- Gini, C., L'evoluzione del concetto di media, *Metron* **16**, 3 (1952). M **14**, 486
- Gini, C., Estensione della teoria della dispersione e della connessione a serie di grandezze assolute, *Giorn. Ist. Ital. Attuari.* **15**, 4 (1952). M **16**, 54
- Gini, C., Estensioni e portata della teoria della dispersione, *Studies in Mathematics and Mechanics presented to R. von Mises*, pp. 323-335 (Academic Press Inc., New York 1954). M **16**, 381
- Gonin, H. T., The use of factorial moments in the treatment of the hypergeometric distribution and in tests for regression, *Philos. Mag.* **VII 21**, 215 (1936). Z **13**, 273
- Gonin, H. T., Curve fitting by means of the orthogonal polynomials in binomial statistical distributions, *Trans. Roy. Soc. South Africa* **30**, 207 (1944). M **6**, 234
- Goodman, L. A., On the estimation of the number of classes in a population, *Ann. Math. Statist.* **20**, 572 (1949). M **11**, 260
- Gotaas, P., Formules de récurrence pour les semi-invariants à quelques lois de distribution à plusieurs variables, *C. R. Acad. Sci., Paris* **202**, 619 (1936). Z **13**, 214
- Gotaas, P., Formulae of recurrence for the semi-invariants at a class of frequency functions of more variables, *Skand. Aktuarietidskr.* **19**, 200 (1936). Z **15**, 220
- Gottschalk, V. H., Symmetrical bi-modal frequency curves, *J. Franklin Inst.* **245**, 245 (1948). M **9**, 452
- ♦Graf, U., Drei Nomogramme zur Bestimmung von Mittelwert-Toleranzen, *Mitteilungsblatt Math. Statist.* **2**, 90 (1950). M **12**, 362
- Guest, P. G., The fitting of polynomials by the method of weighted grouping, *Ann. Math. Statist.* **22**, 537 (1951). M **13**, 481
- Guldberg, A., On Poisson's frequency function, *Skand. Aktuarietidskr.* **14**, 43 (1931). Z **1**, 217
- Guldberg, A., A remark on the Pearsonian frequency curves, *Skand. Aktuarietidskr.* **15**, 82 (1932). Z **4**, 16
- Guldberg, A., Ist die normale Stabilität empirisch nachweisbar? *Tôhoku Math. J.* **37**, 127 (1933). Z **7**, 314
- Gumbel, E. J., Représentation des répartitions unimodales, unilatéralement limitées, *C. R. Acad. Sci., Paris* **196**, 1268 (1933). Z **6**, 359
- Gumbel, E. J., La dissection d'une répartition, *Ann. Univ. Lyon A* **11**, 39 (1939). M **1**, 247
- Gumbel, E. J., Les valeurs de position d'une variable aléatoire, *C. R. Acad. Sci., Paris* **208**, 149 (1939). Z **20**, 149
- Gumbel, E. J., Elementare Ableitung der Momente für die Zahl der Überschreitungen, *Mitteilungsblatt Math. Statist.* **6**, 164 (1954). M **16**, 270
- Guttman, L., An inequality for kurtosis, *Ann. Math. Statist.* **19**, 277 (1948). M **9**, 599
- Haavelmo, T., The statistical implications of a system of simultaneous equations, *Econometrica* **11**, 1 (1943). M **4**, 220
- Haden, H. G., A note on the distribution of the different orderings of  $n$  objects, *Proc. Cambridge Philos. Soc.* **43**, 1 (1947). M **8**, 160
- Hagstroem, K. G., Un problème du calcul stochastique, *Försäkrings. Studier F. Lundberg*, pp. 104-127 (Stockholm, 1946). M **8**, 393
- ♦Hald, A., On the determination of the phagocytic power of leucocytes, *Acta Pathologica et Microbiolog. Scand.* **XX**, 64 (1943).
- Haldane, J. B. S., The mean and variance of  $\chi^2$ , when used as a test of homogeneity, when expectations are small, *Biometrika* **31**, 346 (1940). M **1**, 346
- Haldane, J. B. S., The cumulants and moments of the binomial distribution, and the cumulants of  $\chi^2$  for a  $(n \times 2)$ -fold table, *Biometrika* **31**, 392 (1940). M **1**, 346
- Haldane, J. B. S., The cumulants of the distribution of the square of a variate, *Biometrika* **32**, 199 (1941). M **3**, 170
- Haldane, J. B. S., The fitting of binomial distributions, *Ann. Eugenics* **11**, 179 (1941). M **4**, 26
- Haldane, J. B. S., The mode and median of a nearly normal distribution with given cumulants, *Biometrika* **32**, 294 (1942). M **4**, 20
- Haldane, J. B. S., Moments of the distributions of powers and products of normal variates, *Biometrika* **32**, 226 (1942). M **4**, 20
- Hansmann, G. H., On certain non-normal symmetrical frequency distributions, *Biometrika* **26**, 129 (1934). Z **9**, 220
- Hart, B. I., Significance levels for the ratio of the mean square successive difference to the variance, *Ann. Math. Statist.* **13**, 445 (1942). M **4**, 165
- Hartley, H. O., The range in random samples, *Biometrika* **32**, 334 (1942). M **4**, 21
- Hartley, H. O., The application of some commercial calculating machines to certain statistical calculations, *Suppl. J. Roy. Statist. Soc.* **8**, 154 (1946). M **9**, 251
- Hartley, H. O., A simplified form of Sheppard's correction formulae, *Biometrika* **37**, 145 (1950). M **12**, 115
- Hatke, M. A., A certain cumulative probability function, *Ann. Math. Statist.* **20**, 461 (1949). M **11**, 41

- Hayashi, C., Multidimensional quantification, *Proc. Japan Acad.* **30**, 165 (1954). M **16**, 381
- Hemelrijk, J., On the determination of confidence intervals and estimates for the coefficients of a straight line from a number of inaccurately observed points, *Math. Centrum Amsterdam Rapport ZW-1949-013*, 39 pp. (1949). M **11**, 445
- ◆ Henning, H. J., (See U. Graf) *Mitteilungsblatt Math. Statist.* **2**, 90 (1950).
- ◆ Henri, V. P., (See Z. Bay) *Phys. Rev.* **100**, 1197 (1955).
- Hirschman, A. O., On measures of dispersion for a finite distribution, *J. Amer. Statist. Assoc.* **38**, 346 (1943). M **5**, 42
- Hitchcock, H. P., The estimation of the probable error from successive and independent variances, *Ballistic Research Lab. Report 193* (Aberdeen Proving Ground, Md., 1940). M **12**, 37
- Hofmann, L., Über eine elementare Herleitung der Sheppardschen Korrekturen und eine prinzipielle Bemerkung über die letzteren, *Statist. Vierteljahr.* **6**, 119 (1953). M **15**, 971
- Hotelling, H., Experimental determination of the maximum of a function, *Ann. Math. Statist.* **12**, 20 (1941). M **2**, 232
- ◆ Hotelling, H., (See J. T. Chu) *Ann. Math. Statist.* **26**, 593 (1955).
- ◆ Hsu, C. T., The derivation of the fifth and sixth moments of the distribution of  $b_2$  in samples from a normal population, *Biometrika* **31**, 238 (1940). M **1**, 346
- Hudimoto, H., Note on fitting a straight line when both variables are subject to error and some applications, *Ann. Inst. Statist. Math., Tokyo* **7**, 159 (1956). M **18**, 242
- Huhn, R., A trigonometrical method for computing the scales of statistical charts to improve visualization, *J. Amer. Stat. Assoc.* **26**, 319 (1931). Z **3**, 18
- Huron, R., Sur la répartition des décimales de rang donné dans les tables numériques, *C. R. Acad. Sci., Paris* **232**, 299 (1951). M **12**, 427
- ◆ Irwin, J. O., Sampling moments of moments for a finite population, *Ann. Eugenics* **12**, 138 (1944). M **6**, 162
- Irwin, J. O., A unified derivation of some well-known frequency distributions of interest in biometry and statistics, *J. Roy. Statist. Soc. Ser. A* **118**, 389 (1955). M **17**, 380
- Isserlis, L., On the moment distributions of moments in the case of samples drawn from a limited universe, *Proc. Roy. Soc. Lond. A* **132**, 586 (1931). Z **2**, 279
- Jambunathan, M. V., The curve of population, *J. Indian Math. Soc.* **19**, 151 (1932). Z **4**, 157
- ◆ Jecklin, H., Die elementaren Mittelwerte, *Mitt. Verein. Schweiz. Versich. Math.* **47**, 123 (1947). M **9**, 81
- Jeffreys, H., On the smoothing of observed data, *Proc. Cambridge Philos. Soc.* **33**, 444 (1937). Z **18**, 34
- Jeffreys, H., The correction of frequencies for a known standard error of observation, *Monthly Not. Roy. Astron. Soc.* **98**, 190 (1938). Z **18**, 158
- ◆ Jersild, M., (See A. Hald) *Acta Pathologica et Microbiologica Scandinavica* **xx**, 64 (1943).
- Johansen, N. P., Free functions, *Mém. Inst. Géodésique Danemark* **4**, 30 pp. (1944). M **7**, 462
- Johnson, E., Estimates of parameters by means of least squares, *Ann. Math. Statist.* **11**, 453 (1940). M **2**, 233
- Johnson, N. L., Systems of frequency curves generated by methods of translation, *Biometrika* **36**, 149 (1949). M **11**, 527
- ◆ Johnson, N. L., (See F. N. David) *Biometrika* **37**, 42 (1950).
- ◆ Johnson, N. L., The moment problem for unimodal distributions, *Ann. Math. Statist.* **22**, 433 (1951). M **13**, 119
- Johnson, N. L., Systems of frequency curves derived from the first law of Laplace, *Trabajos Estadist.* **5**, 283 (1955). M **16**, 1132
- ◆ Johnson, N. L., (See F. N. David) *Metron* **18**, 77 (1956).
- Jones, H. L., The use of grouped measurements, *J. Amer. Statist. Assoc.* **36**, 525 (1941). M **4**, 221
- Jordan, Ch., Sur l'approximation d'une fonction à plusieurs variables, *Acta Litt. Sci. Szeged.* **8**, 205 (1937). Z **16**, 365
- Kamat, A. R., Moments of the mean deviation, *Biometrika* **41**, 541 (1954). M **16**, 381
- ◆ Kanner, H., (See Z. Bay) *Phys. Rev.* **100**, 1197 (1955).
- Kaplan, E. L., Tensor notation and the sampling cumulants of  $k$ -statistics, *Biometrika* **39**, 319 (1952). M **14**, 486
- Kaplansky, I., A characterization of the normal distribution, *Ann. Math. Statist.* **14**, 197 (1943). M **4**, 279
- Kaplansky, I., A common error concerning kurtosis, *J. Amer. Statist. Assoc.* **40**, 259 (1945). M **7**, 20
- Kärsna, A., Über das System der einmodigen Häufigkeitskurven, *Acta Comment. Univ. Tartuensis A* **35**, No 1, 65 pp. (1940). M **4**, 19
- Kašanin, R., Le coefficient d'approximation moyenne et le coefficient de corrélation, *Acad. Serbe. Sci. Publ. Inst. Math.* **1**, 71 (1947). M **10**, 552
- Kendall, M. G., Note on the distribution of quantiles for large samples, *Suppl. J. Roy. Statist. Soc.* **7**, 83 (1940). M **2**, 231
- Kendall, M. G., A recurrence relation for the semi-invariants of Pearson curves, *Biometrika* **32**, 81 (1941). M **2**, 231
- ◆ Kendall, M. G., (See J. O. Irwin) *Ann. Eugenics* **12**, 138 (1944).
- Kenney, J. F., Characteristic functions in statistics, *Nat. Math. Mag.* **17**, 51 (1942). M **4**, 103
- ◆ Kent, R. H., (See J. von Neumann) *Ann. Math. Statist.* **12**, 153 (1941).
- Kerawala, S. M., On bounds of skewness and kurtosis, *Bull. Calcutta Math. Soc.* **40**, 41 (1948). M **10**, 134



- Kirkham, W. J., Moments about the arithmetic mean of a binomial frequency distribution, *Ann. Math. Statist.* **6**, 96 (1935). Z **12**, 29
- Kjellberg, B., Ein Momentenproblem, *Ark. Mat. Astr. Fys.* **29A**, 33 pp. (1943). M **6**, 203
- ◆Kloot, N. H., (See E. J. Williams) *Australian J. Appl. Sci.* **4**, 1 (1953).
- Knobloch, H., Funktionsgewichte in der Ausgleichsrechnung, *Z. Angew. Math. Mech.* **21**, 315 (1941). M **7**, 462
- Knoll, F., Zur Bruns-Hermite'schen Reihe in der mathematischen Statistik, *S.-B. Akad. Wiss. Wien* **1935**, 45 (1935). Z **11**, 263
- Knoll, F., Über Näherungsverfahren bei empirisch gegebenen Verteilungsfunktionen und damit verbundene Korrekturformeln, *Deutsche Math.* **7**, 187 (1943). M **8**, 393
- Kreis, H., Beitrag zur Theorie der Häufigkeitsfunktionen, *Mitt. Verein. Schweiz. Versich. Math.* **45**, 239 (1945). M **7**, 461
- Krishnaswami Ayyangar, A. A., On the semi-invariants of two variates and their additive property, *J. Indian. Math. Soc.* **3**, 1 (1938). Z **18**, 320
- Krishnaswami Ayyangar, A. A., The triangular distribution, *Math. Student* **9**, 85 (1941). M **3**, 171
- Krishnaswami Ayyangar, G. V., Median of three populations. A simple construction, *J. Annamalai Univ.* **4**, 62 (1935). Z **11**, 126
- Krishna Iyer, P. V., The theory of probability distributions of points on a line, *J. Indian Soc. Agric. Statist.* **1**, 173 (1948). M **11**, 446
- Krishna Iyer, P. V., The first and second moments of some probability distributions arising from points on a lattice and their applications, *Biometrika* **36**, 135 (1949). M **11**, 607
- Krishna Iyer, P. V., Difference equations of moment-generating functions for some probability distributions, *Nature* **165**, 370 (1950). M **11**, 446
- Krishna Iyer, P. V., Further contributions to the theory of probability distributions of points on a line. III. *J. Indian Soc. Agric. Statist.* **4**, 50 (1952). M **14**, 297
- ◆Kudō, T., On the decomposition of a bimodal distribution into two normal curves, *J. Gakugei Tokushima U. Nat. Sci. Math.* **6**, 75 (1955). M **17**, 1102
- Kuiper, N. H., Note on the fitting of a function to a large number of observations, *Statistica (den Haag)* **8**, 1 (1954). M **16**, 497
- Kullback, S., A note on Sheppard's corrections, *Ann. Math. Statist.* **6**, 158 (1935). Z **12**, 175
- Kullback, S., On certain distributions derived from the multinomial distribution, *Ann. Math. Statist.* **8**, 127 (1937). Z **18**, 33
- Kullback, S., On the Charlier type *B* series, *Ann. Math. Statist.* **18**, 574 (1947). M **9**, 234
- Kupperman, M., On exact grouping corrections to moments and cumulants, *Biometrika* **39**, 429 (1952). M **14**, 389
- Lah, I., Analytical graduation of fertility rates, *J. Amer. Statist. Assoc.* **51**, 461 (1956). M **18**, 241
- ◆Lawley, D. N., (See H. T. Hsu) *Biometrika* **31**, 238 (1940).
- Lewis, W. T., A reconsideration of Sheppard's corrections, *Ann. Math. Statist.* **6**, 11 (1935). Z **11**, 263
- Lieblein, J., On moments of order statistics from the Weibull distribution, *Ann. Math. Statist.* **26**, 330 (1955). M **16**, 1037
- Liu, N., A new method for computing the mean difference, *Essays and Papers in Memory of Fu SSu-Nien* (The National Taiwan University, Taipei, 1952), pp. 339-356. M **14**, 888
- Lomnicki, Z. A., The standard error of Gini's mean difference, *Ann. Math. Statist.* **23**, 635 (1952). M **53**, 389
- Lorenz, P., Über gewisse Funktionen, die in der mathematischen Konjunkturforschung eine grosse Rolle spielen, *J. Reine Angew. Math.* **168**, 170 (1932). Z **5**, 304
- Lorenz, P., Darstellung statistischer Übersichten mit zwei Eingängen durch orthogonale ganze rationale Funktionen (Flächendarstellung), *Arch. Math. Wirtsch. Sozialforsch.* **6**, 57 (1940). M **6**, 5
- Lorenz, P., Herleitung der Näherungsformel von Laplace für die Binomialverteilung, ohne Grenzübergang, *Z. Angew. Math. Mech.* **29**, 368 (1949). M **11**, 402
- Lukacs, E., Applications of Faà di Bruno's formula in mathematical statistics, *Amer. Math. Monthly* **62**, 340 (1955). M **16**, 1037
- Lukomski, J., On some properties of multidimensional distributions, *Ann. Math. Statist.* **10**, 236 (1939). M **1**, 22
- Lyttkens, E., On a class of conditional distributions, connected with some astronomical problems, *Ark. Astronomi* **1**, 11 (1950). M **12**, 115
- Lyttkens, E., On a class of multidimensional conditional characteristic functions and semi-invariants, *Ark. Astronomi* **1**, 27 (1950). M **12**, 115
- Lyttkens, E., A generalisation of the multidimensional A-series, *Ark. Astronomi* **1**, 47 (1950). M **12**, 115
- Lyttkens, E., Determination of unknown distributions by means of conditional frequency functions, *Ark. Astronomi* **1**, 69 (1950). M **12**, 115
- Majumder, D., Frequency curves and curve fitting, *J. Assoc. Appl. Phys. Calcutta Univ.* **1**, 84 (1955). M **17**, 169
- Mallows, C. L., Note on the moment-problem for unimodal distributions when one or both terminals are known, *Biometrika* **43**, 224 (1956). M **17**, 950
- Marcantoni, A., Il principio dei minimi quadrati, *U. Roma e. Ist. Naz. Alta. Mat. Rend. Mat. e. Appl.* **3**, 192 (1942). M **8**, 282
- Mardessich, B., Sulle relazioni fra medie combinatorie e medie potenziate, *Statistica (Bologna)* **13**, 77 (1953). M **15**, 45
- Martin, E. S., On corrections for the moment coefficients of frequency distributions when the start of the frequency is one of the characteristics to be determined, *Biometrika* **26**, 12 (1934). Z **9**, 78
- Martinotti, P., Di alcune recenti medie, *Pont. Acad. Sci. Acta.* **5**, 113 (1941). M **3**, 144
- ◆Matsumura, N., (See T. Kudō) *J. Gakugei Tokushima U. Nat. Sci. Math.* **6**, 75 (1955).

- Mattila, S., The decomposition of a series of observations by the method of iterated moving averages, *Acad. Sci. Fennicae Ser. A Math.-Phys.* **No. 156**, 16 pp. (1953). M **15**, 331
- Maurin, J., Un mode de calcul général de la fonction de probabilité de moyennes, *C. R. Acad. Sci., Paris* **225**, 1268 (1947). M **9**, 294
- Maurin, J., Extension analytique d'un calcul de la fonction de probabilité de moyennes correspondant à une probabilité négative, *C. R. Acad. Sci., Paris* **226**, 51 (1948). M **9**, 295
- Maverick, L. A., Graphic presentation of standard deviation, *J. Amer. Statist. Assoc.* **27**, 287 (1932). Z **5**, 174
- McCarthy, P. J., Approximate solutions for means and variances in a certain class of box problems, *Ann. Math. Statist.* **18**, 349 (1947). M **11**, 41
- Michalup, E., Über den Begriff "Exzess" in der mathematischen Statistik, *Mitt. Verein. Schweiz. Versich. Math.* **46**, 231 (1946). M **8**, 393
- Michalup, E., The characteristics, *Bol. Acad. Ci. Fis. Mat. Nat.* **11**, 448 (1948). M **10**, 50
- Midutani, K. K., Ein neues Summenverfahren zur Berechnung der Momente, *Mh. Math. Phys.* **42**, 49 (1935). Z **11**, 361
- Milicer-Grizewska, H., An empirical curve and its generalisation, *C. R. Soc. Sci. Varsovie* **28**, 79 (1936). Z **13**, 410
- von Mises, R., An inequality for the moments of a discontinuous distribution, *Skand. Aktuarietidskr.* **22**, 32 (1939). M **1**, 22; Z **21**, 147
- von Mises, R., On the asymptotic distribution of differentiable statistical functions, *Ann. Math. Statist.* **18**, 309 (1947). M **9**, 194
- Mitropol'skiĭ, On determinants of the distribution of a series of natural numbers, *Uspehi. Mat. Nauk.* **10**, 143 (1955). M **17**, 702
- Mogno, R., Di un metodo di interpolazione statistica, *Metron* **12**, 3 (1935). Z **11**, 315
- Montessus de Ballore, R., Statistique mathématique, les moments d'ordre nul de la fonction binomiale, *Ann. Soc. Sci. Bruxelles A* **51**, 73 (1931). Z **2**, 201
- Montessus de Ballore, R., Statistique mathématique. Problèmes de degrés supérieurs, *Ann. Soc. Sci. Bruxelles A* **52**, 22 (1932). Z **4**, 67
- Montessus de Ballore, R., Statistique mathématique. Les moments partiels du second ordre de la fonction binomiale, *Ann. Soc. Sci. Bruxelles A* **52**, 70 (1932). Z **4**, 358
- Mood, A. M., The distribution theory of runs, *Ann. Math. Statist.* **11**, 367 (1940). M **2**, 228
- Mood, A. M., On the joint distribution of the medians in samples from a multivariate population, *Ann. Math. Statist.* **12**, 268 (1941). M **3**, 172
- Moriguti, S., A lower bound for a probability moment of any absolutely continuous distribution with finite variance, *Ann. Math. Statist.* **23**, 286 (1952). M **13**, 853
- Mortara, G., Misura ed indici delle disuguaglianze statistiche, *Rend. Semin. Fis., Milano* **8**, 83 (1934). Z **13**, 360
- Moyal, J. E., Approximate probability distribution functions for the sum of two independent variates, *J. Roy. Statist. Soc.* **105**, 42 (1942). M **4**, 19
- Muench, H., Discrete frequency distributions arising from mixtures of several single probability values, *J. Amer. Statist. Assoc.* **33**, 390 (1938). Z **19**, 73
- Münzner, H., Über die Bewertung der Potenzmomente, *Mh. Math. Phys.* **41**, 375 (1934). Z **10**, 312
- Nabeya, S., Note on the moments of the transformed correlation, *Ann. Inst. Statist. Math., Tokyo* **3**, 1 (1951). M **13**, 478
- Nabeya, S., Absolute moments in 2-dimensional normal distribution, *Ann. Inst. Statist. Math., Tokyo* **3**, 2 (1951). M **13**, 570
- Nabeya, S., Absolute moments in 3-dimensional normal distribution, *Ann. Inst. Statist. Math., Tokyo* **4**, 15 (1952). M **14**, 569
- ♦Nair, K. R., On a simple method of curve fitting, *Sankhyā* **6**, 121 (1942). M **4**, 279
- ♦Nair, K. R., A note on fitting of straight lines if both variables are subject to error, *Sankhyā* **6**, 331 (1943). M **5**, 126
- Nanda, D. N., Distribution of the sum of roots of a determinantal equation under a certain condition, *Ann. Math. Statist.* **21**, 432 (1950). M **12**, 192
- Narain, R. D., Some results on discriminant functions, *J. Indian Soc. Agric. Statist.* **2**, 49 (1949). M **12**, 192
- Nelder, J. A., The interpretation of negative components of variance, *Biometrika* **41**, 544 (1954). M **16**, 381
- ♦von Neumann, J., The mean square successive difference, *Ann. Math. Statist.* **12**, 153 (1941). M **3**, 7
- von Neumann, J., Distribution of the ratio of the mean square successive difference to the variance, *Ann. Math. Statist.* **12**, 367 (1941). M **4**, 21
- von Neumann, J., A further remark concerning the distribution of the ratio of the mean square successive difference to the variance, *Ann. Math. Statist.* **13**, 86 (1942). M **4**, 22
- Nicholson, C., A geometrical analysis of the frequency distribution of the ratio between two variables, *Biometrika* **32**, 16 (1941). M **2**, 231
- Nicholson, C., The probability integral for two variables, *Biometrika* **33**, 59 (1943). M **6**, 161
- Norris, N., The standard errors of the geometric and harmonic means and their application to index numbers, *Ann. Math. Statist.* **11**, 445 (1940). M **2**, 228
- Norton, K. A., Limits to the accuracy of estimated moment coefficients *Sankhyā* **3**, 265 (1938).
- Nybölle, H., On pseudo-analytical graduation, *J. Inst. Actuar.* **66**, 63 (1935). Z **12**, 267
- Odhoff, W., Some studies of the characteristic functions and the semi-invariants of Pearson's frequency-functions, *Försäkringsmatematiska Studier Tillägnade*, (Filip Lundberg, Stockholm, 1946), pp. 168-179. M **8**, 393
- ♦Oppenheim, A., (See A. C. Aitken) *Proc. Roy. Soc. Edinburgh* **51**, 35 (1931).

- O'Toole, A. L., On symmetric functions and symmetric functions of symmetric functions, *Ann. Math. Statist.* **2**, 101 (1931). Z **4**, 264
- O'Toole, A. L., On symmetric functions of more than one variable and of frequency functions, *Ann. Math. Statist.* **3**, 56 (1932). Z **4**, 265
- O'Toole, A. L., A method of determining the constants in the bimodal fourth degree exponential function, *Ann. Math. Statist.* **4**, 79(1933). Z **7**, 220
- Ottestad, P., The exponential frequency function and frequency distributions, *Metron* **13**, 51 (1937). Z **16**, 171
- Ottestad, P., On the use of the factorial moments in the study of discontinuous frequency distributions, *Skand. Aktuarietidskr.* **22**, 22 (1939). M **1**, 22; Z **21**, 147
- Ottestad, P., On Bernoullian, Lexis, Poisson and Poisson-Lexis series, *Skand. Aktuarietidskr.* **26**, 15 (1943). M **7**, 211
- Ottestad, P., On certain compound frequency distributions, *Skand. Aktuarietidskr.* **27**, 32 (1944). M **7**, 211
- Pailloux, H., Sur un problème de répartition, *Ann. Univ. Grenoble Sect. Sci. Math.-Phys.* **21**, 123 (1946). M **8**, 160
- ◆ Pairman, E., On corrections for moment coefficients of limited range frequency distributions when there are finite or infinite ordinates and any slopes at the terminals of the range, *Biometrika* **12**, 231 (1919).
- Pankraz, O., Sur la désagrégation d'un groupe statistique, *Publ. Fac. Sci. Univ. Masaryk* **172**, 1 (1933). Z **7**, 24
- Pârvulescu, C., Recherches statistiques sur les mesures représentées par les notes donnés aux élèves, *Bul. Fac. Sti. Cernauti* **12**, 22 (1939). Z **22**, 257
- Patzner, H., *Untersuchungen zur Methodik des Vergleichs zweier statistischer Reihen*, (Dissertation: University of Göttingen, 1935) 37 pp. Z **14**, 270
- ◆ Paulson, E., (See Z. W. Birnbaum) *Psychometrika* **15**, 191 (1950).
- ◆ Pearson, K., (See E. Pairman) *Biometrika* **12**, 231 (1919).
- Pearson, K., On the parent population with independent variates which gives the minimum value of  $\phi^2$  for a given sample, *Biometrika* **25**, 134 (1933). Z **7**, 71
- ◆ Pearson, E. S., (See R. C. Geary) (Cambridge Univ. Press, 1938) 15 pp.
- Pearson, E. S., Some aspects of the geometry of statistics. The use of visual presentation in understanding the theory and application of mathematical statistics, *J. Roy. Statist. Soc. Ser. A* **119**, 125 (1956). M **18**, 606
- Peck, R. L., Some new theorems on limits of variation, *Bull. Amer. Math. Soc.* **39**, 953 (1933). Z **8**, 265
- ◆ Pelzer, H., (See A. E. W. Austen), *Nature* **157**, 693 (1946).
- Peters, C. C., A new descriptive statistic: the parabolic correlation coefficient, *Psychometrika* **11**, 57 (1946). M **7**, 462
- Petrov, V. V., On the method of least squares and its extremal properties, *Uspehi Matem. Nauk.* **9**, 41 (1954). M **15**, 971
- Petrov, V. V., On the method of least squares and its extremal properties, *Acad. Rep. Pop. Romîne. An. Romîno-Soviet. Mat.-Fiz.* **8**, 5 (1954). M **16**, 726
- Petrov, V. V., Corrections to the paper, "On the method of least squares and its extremal properties", *Uspehi Mat. Nauk.* **11**, 250 (1956). M **17**, 1101
- Philipson, C., Explicit expressions for the first four moments of a truncated distribution defined by Pearson type VI, *Skand. Aktuarietidskr.* **39**, 63 (1956). M **18**, 955
- Picard, H. C., A note on the maximum value of kurtosis, *Ann. Math. Statist.* **22**, 480 (1951). M **13**, 141
- Pierce, J. A., A study of a universe of  $n$  finite populations with application to moment-function adjustments for grouped data, *Ann. Math. Statist.* **11**, 311 (1940). M **2**, 109
- Pierce, J. A., Correction formulas for moments of a grouped-distribution of discrete variates, *J. Amer. Statist. Assoc.* **38**, 57 (1943). M **4**, 221
- Pitman, E. J. G., On the derivatives of a characteristic function at the origin, *Ann. Math. Statist.* **27**, 1156 (1956). M **18**, 955
- Pizzetti, E., Betrachtungen über die Messung der Variabilität vermittels der mittleren Differenz nach Gini, *Arch. Rassenbiol.* **34**, 321 (1941). Z **24**, 160
- Plackett, R. L., A historical note on the method of least squares, *Biometrika* **36**, 458 (1949). M **11**, 445
- Quenouille, M. H., A relation between the logarithmic, Poisson, and negative binomial series, *Biometrics* **5**, 162 (1949). M **10**, 722
- Quenouille, M. H., On a method of trend elimination, *Biometrika* **36**, 75 (1949). M **11**, 674
- Quensel, C. E., Truncated normal curves and correlation distributions, *Lunds Univ. Årsskrift. N.F.* **36**, 17 pp. (1940). M **2**, 231
- Quensel, C. E., Studies of the logarithmic normal curve, *Skand. Aktuarietidskr.* **28**, 141 (1945). M **7**, 211
- Raiford, T. E., Skewness of combined distributions, *J. Amer. Statist. Assoc.* **37**, 391 (1942). M **4**, 20
- Rajalakshman, D. V., On the extreme values of samples taken from a rectangular population, *Math. Student* **9**, 103 (1941). M **4**, 21
- Rao, C. R., On bivariate correlation surfaces, *Science and Culture* **8**, 236 (1942). M **5**, 126
- Rao, C. R., Markoff's theorem with linear restrictions on parameters, *Sankhyā* **7**, 16 (1945). M **7**, 132
- Rao, C. R., Generalisation of Markoff's theorem and tests of linear hypotheses, *Sankhyā* **7**, 9 (1945). M **7**, 132
- Rao, C. R., On the mean conserving property, *Proc. Indian Acad. Sci. Sect. A* **23**, 165 (1946). M **8**, 40

- Rao, C. R., A general theory of discrimination when the information about alternative population distributions is based on samples, *Ann. Math. Statist.* **25**, 651 (1954). M **16**, 380
- Rao, C. R., Analysis of dispersion for multiply classified data with unequal numbers in cells, *Sankhyā* **15**, 253 (1955). M **17**, 277
- ♦ Rasch, G., (See A. Hald) *Acta Pathologica et Microbiologica Scandinavica* **xx**, 64 (1943).
- Reiersöl, O., Measures of departure from symmetry, *Skand. Aktuarietidskr.* **27**, 229 (1944). M **7**, 211
- Richter, H., Zur Gaussischen Verteilung im  $n$ -dimensionalen Raume, *Z. Angew. Math. Mech.* **29**, 161 (1949). M **11**, 258
- Rider, P. R., The third and fourth moments of the generalized Lexis theory, *Metron* **12**, 185 (1934). Z **11**, 263
- Rietz, H. L., Some remarks on mathematical statistics, *Science* **74**, 82 (1931). Z **2**, 278
- Rietz, H. L., On the Lexis theory and the analysis of variance, *Bull. Amer. Math. Soc.* **38**, 731 (1932). Z **6**, 23
- Riordan, J., Inversion formulas in normal variable mapping, *Ann. Math. Statist.* **20**, 417 (1949). M **11**, 41
- Ríos, S., Problems of maxima and minima related to inference in finite populations, *Trabajos Estadística* **6**, 3 (1955). M **17**, 503
- Risser, R., Note relative aux surfaces de probabilités, *Assoc. Actuar. Belges Bull. No.* **53**, 5 (1948). M **10**, 312
- Risser, R., Essai sur les courbes de distribution statistique, *Assoc. Actuar. Belges Bull. No.* **54**, 41 (1948). M **10**, 386
- Risser, R., Note relative aux surfaces de probabilités, *J. Soc. Statist. Paris* **89**, 381 (1948). M **10**, 722
- Risser, R., Essai sur les courbes de distribution statistique, *J. Soc. Statist. Paris* **89**, 288 (1948). M **10**, 722
- Robb, R. A., The effect of change of origin in type A series, *Fysiogr. Sällsk. Lund. Förh.* **1**, No. 8, 1 (1932). Z **4**, 359
- Robb, R. A., The application of type A series to skew curves, *Fysiogr. Sällsk. Lund. Förh.* **1**, No. 9, 1 (1932). Z **4**, 359
- Robbins, R. B., Actuarial note: Osculatory curve of minimum degree using method of Lidstone's demonstration, *Trans. Actuar. Soc. Amer.* **35**, 244 (1934). Z **12**, 411
- Robson, D. S., Applications of the  $k_4$  statistic to genetic variance component analyses, *Biometrics* **12**, 433 (1956). M **18**, 708
- Rodrigues, M., On an extension of the concept of moment with applications to measures of variability, general similarity, and overlapping, *Ann. Math. Statist.* **16**, 74 (1945). M **6**, 234
- ♦ Rogers, C. A., (See N. L. Johnson) *Ann. Math. Statist.* **22**, 433 (1951).
- Romanovsky, V., Sulle regressioni multiple, *Giorn. Ist. Ital. Attuari.* **2**, 161 (1931). Z **1**, 217
- Romanovsky, V., Note on the method of moments, *Biometrika* **28**, 188 (1936). Z **14**, 320
- Ruben, H., On the moments of order statistics in samples from normal populations, *Biometrika* **41**, 200 (1954). M **16**, 153
- Sakamoto, H., On the distributions of the product and the quotient of the independent and uniformly distributed random variables, *Tôhoku Math. J.* **49**, 243 (1943). M **8**, 523
- Salvemini, T., Sulla correzione dei momenti empirici di una distribuzione statistica, *Giorn. Ist. Ital. Attuari.* **10**, 69 (1939). Z **22**, 63
- Salvemini, T., Di uno scarto trigonometrico medio, nel caso delle serie cicliche, *Atti Secondo Congresso. un. Mat. Ital. Bologna*, pp. 657-671 (Edizioni Cremonense, Rome, 1942). M **8**, 474
- Salvemini, T., Gli indici di connessione nel caso di variabili casuali normali e considerazioni sulla graduatoria tra indici di connessione e indici di concordanza, *Statistica (Bologna)* **15**, 77 (1955). M **16**, 1037
- Šamonil, F., Remark to the summation-formulas of the Lubbock's type, *Aktuár. Vědy* **4**, 120 (1934). Z **9**, 220
- Samuelson, P. A., Fitting general Gram-Charlier series, *Ann. Math. Statist.* **14**, 179 (1943). M **4**, 279
- Sarkadi, K., Choice of intervals for grouping of data, *Magyar Tud. Akad. Alkalm. Mat. Int. Közl.* **2**, 299 (1954). M **16**, 380
- Sarkadi, K., On Sheppard's correction concerning the mean deviation, *Magyar Tud. Akad. Alkalm. Mat. Int. Közl.* **3**, 183 (1955). M **17**, 871
- Satterthwaite, F. E., Synthesis of variance, *Psychometrika* **6**, 309 (1941). M **3**, 172
- Satterthwaite, F. E., Generalized Poisson distribution, *Ann. Math. Statist* **13**, 410 (1942). M **4**, 163
- Sawkins, D. T., The use of cumulative graphs for estimation of means, higher moments, etc., *Metron* **13**, 33 (1938). Z **20**, 148
- Sawkins, D. T., Remarks on goodness of fit of hypotheses and on Pearson's  $\chi^2$  test, *J. Proc. Roy. Soc., New South Wales* **75**, 85 (1941). M **3**, 175
- von Schelling, H., Die Konzentration einer Verteilung und ihre Abhängigkeit von den Grenzen des Variationsbereiches, *Metron* **11**, 3 (1934). Z **10**, 173
- Schneider, S., Sur l'ajustement des courbes à branches limitées, *J. Soc. Statist. Paris* **89**, 218 (1948). M **10**, 721
- Seal, K. C., A note on moments of order statistics from symmetrical populations, *Calcutta Statist. Assoc. Bull.* **6**, 91 (1955). M **17**, 503
- Selberg, H. L., On an inequality in mathematical statistics, *Norsk Mat. Tidsskr.* **24**, 1 (1942). M **8**, 199
- Selberg, H. L., On the corrections for grouping, *Skand. Aktuarietidskr.* **30**, 179 (1947). M **10**, 721
- Sengupta, J. M., A note on adjustments for first and second moments in a grouped frequency distribution split up into subsections, *Sankhyā* **6**, 413 (1944). M **5**, 208
- Shannon, S., Comparative aspects of the point binomial polygon and its associated normal curve of error, *Record Amer. Inst. Actuar.* **31**, 208 (1942). M **4**, 279

- Shenton, L. R., On the efficiency of the method of moments and Neyman's type A distribution, *Biometrika* **36**, 450 (1949). M **11**, 445
- Sheppard, W. F., The calculation of the moments of a frequency distribution, *Biometrika* **5**, 450 (1907).
- Sherman, J., The use of orthogonal polynomials in curve fitting and regression analysis, *Proc. Ind. Comp. Seminar, Sept. 1950*, pp. 78-80 (IBM Corp., N.Y. 1951). M **13**, 481
- Shone, K. J., Relations between the standard deviation and the distribution of range in non-normal populations, *J. Roy. Statist. Soc., Ser. B* **11**, 85 (1949). M **11**, 260
- Shrivastava, M. P., Bi-variate correlation surfaces, *Science and Culture* **6**, 615 (1941). M **5**, 126
- ♦Shrivastava, M. P., (See K. R. Nair) *Sankhyā* **6**, 121 (1942).
- Sichel, H. S., The method of frequency-moments and its application to type VII populations, *Biometrika* **36**, 404 (1949). M **11**, 733
- Siegel, I. H., Note on a common statistical inequality, *J. Amer. Statist. Assoc.* **38**, 217 (1943). M **4**, 220
- ♦Silverstone, H., (See A. C. Aitken) *Proc. Roy. Soc., Edinburgh A* **61**, 186 (1942).
- Silverstone, H., A note on the cumulants of Kendall's S-distribution, *Biometrika* **37**, 231 (1950). M **12**, 344
- Simaika, J. B., Interpolation for fresh probability levels between the standard table levels of a function, *Biometrika* **32**, 263 (1942). M **4**, 20
- Simaika, J., Sur une mesure de la dispersion d'une distribution de directions, *Bull. Acad. Polon. Sci. Ci. III* **4**, 753 (1956). M **18**, 679
- Simonett, J., Beiträge zur Ausgleichung von Massenerscheinungen nach der Methode von King, *Mitt. Vereinig. Schweiz. Versich. Math. H* **28**, 91 (1933). Z **7**, 315
- Singleton, R. R., A method for minimizing the sum of absolute values of deviations, *Ann. Math. Statist.* **11**, 301 (1940). M **2**, 109
- Sittig, J., Superposition of two frequency distributions, *Statistica (Rijswijk)* **2**, 206 (1948). M **11**, 258
- Skellam, J. G. The frequency distribution of the difference between two Poisson variates belonging to different populations, *J. Roy. Statist. Soc.* **109**, 296 (1946). M **8**, 592
- Skellam, J. G. A probability distribution derived from the binomial distribution by regarding the probability of success as variable between the sets of trials, *J. Roy. Statist. Soc., Ser. B*, **10**, 257 (1948). M **10**, 463
- Skellam, J. G. The distribution of the moment statistics of samples drawn without replacement from a finite population, *J. Roy. Statist. Soc., Ser. B*, **11**, 291 (1949). M **11**, 607
- Smirnov, N. Sur les écarts de la courbe de distribution empirique, *Rec. Math.* **6**, 3 (1939). M **1**, 246
- Smirnov, N. On the estimation of the discrepancy between empirical curves of distribution for two independent samples, *Bull. Math. Univ. Moscou*, **2**, No. 2, 16 pp. (1939). M **1**, 345
- Smirnov, N. Table for estimating the goodness of fit of empirical distributions, *Ann. Math. Statist.* **19**, 279 (1948). M **9**, 599
- Stange, K. Über die Verteilungsdichte der Mess- oder Beobachtungsfehler eines dreidimensionalen Punktraumes, *Z. Angew. Math. Mech.* **28**, 235 (1948). M **10**, 134
- Stange, K. Über das Ausgleichen einer fehlerhaften linearen Punktreihe bei korrelativer Verknüpfung der Messfehler, *Mitteilungsblatt Math. Statist.* **4**, 48 (1952). M **13**, 963
- ♦Stephan, F. F. (See W. E. Deming) *Ann. Math. Statist.* **11**, 427 (1940).
- Stephan, F. F., An iterative method of adjusting sample frequency tables when expected marginal totals are known, *Ann. Math. Statist.* **13**, 166 (1942). M **4**, 24
- Strömngren, B., Tables and diagrams for dissecting a frequency curve into components by the half-invariant method, *Skand. Aktuarietidskr.* **17**, 7 (1934). Z **8**, 266
- Stuart, A., The cumulants of the first  $n$  natural numbers, *Biometrika* **37**, 446 (1950). M **12**, 344
- Sukhatme, P. V., Moments and product moments of moment-statistics for samples of the finite and infinite populations, *Sankhyā* **6**, 363 (1944). M **6**, 8
- Sukhatme, P. V., Measurement of observational errors in surveys, *Rev. Inst. Internat. Statistique* **20**, 121 (1952). M **15**, 141
- Sundrum, R. M., Moments of the rank correlation coefficient  $\tau$  in the general case, *Biometrika* **40**, 409 (1953). M **15**, 331
- Sundrum, R. M., A further approximation to the distribution of Wilcoxon's statistic in the general case, *J. Roy. Statist. Soc., Ser. B*, **16**, 255 (1954). M **16**, 1037
- Szatrowski, Z., Calculating the geometric mean from a large amount of data, *J. Amer. Statist. Assoc.* **41**, 218 (1946). M **7**, 462
- Teatini, U., Interpolazione di serie cicliche, *Statistica (Milano)* **8**, 125 (1948). M **11**, 530
- Teodorescu, C. C., Nouvel emploi des moments d'inertie aux questions statistiques, *Actes Congr. Interbalkan Math.* pp. 189-195 (Athènes, 1935). Z **15**, 33
- Thesen, G., Über periodische Funktionen, ihre Observation und Ausgleichung, *Skand. Aktuarietidskr.* **23**, 168 (1940). M **2**, 232
- Thompson, W. R., Use of moving averages and interpolation to estimate median-effective dose, *Bacteriological Rev.* **11**, 115 (1947). M **11**, 733
- Tintner, G., The distribution of the variances of variate differences in the circular case, *Metron* **17**, 43 (1955). M **16**, 1132
- Toledo Piza, A. P., Representative values of a distribution. Indices of dispersion, *Anais Acad. Brasil Ci.* **28**, 209 (1946). M **8**, 447
- Tomita, J., On binomial distribution, *Mem. Coll. Sci. Kyoto A* **15**, 195 (1932). Z **5**, 212
- Toranzos, F. I., A system of frequency curves which generalizes that of Pearson, *Revista Fac. Ci. Econ. Univ. Cuyo* **1**, 7 pp. (1949). M **11**, 190

- Toranzos, F. I., An asymmetric bell-shaped frequency curve, *Ann. Math. Statist.* **23**, 467 (1952).  
M **14**, 189
- Truksa, L., The simultaneous distribution in samples of mean and standard deviation, and of mean and variance, *Biometrika* **31**, 256 (1940). M **2**, 109
- Tukey, J. W., An inequality for deviations from medians, *Ann. Math. Statist.* **17**, 75 (1946).  
M **7**, 462
- Tukey, J. W., Some sampling simplified, *J. Amer. Statist. Assoc.* **45**, 501 (1950). M **12**, 725
- ♦Tukey, J. W., (See M. F. Freeman) *Ann. Math. Statist.* **21**, 607 (1950).
- Tukey, J. W., Variances of variance components. III. Third moments in a balanced single classification, *Ann. Math. Statist.*, **28**, 378 (1957).  
M **18**, 955
- Uggè, A., Di alcune proprietà dei momenti della curva di probabilità e degli indici di normalità, *Pont. Acad. Sci. Acta* **6**, 229 (1942). M **10**, 201
- Vaidyanathaswamy, R., On the arithmetico-logical symmetric functions of  $n$  attributes, *Proc. Indian Acad. Sci., Sect. A* **2**, 54 (1935). Z **12**, 113
- Vajda, S., On the constituent items of the reduction and the remainder in the method of least squares, *Ann. Math. Statist.* **16**, 381 (1945). M **7**, 316
- Van Ijzeren, J., The theoretical aspect of least squares, *Statistica (Rijswijk)* **8**, 21 (1954).  
M **16**, 385
- Van Uven, M. J., Extension of Pearson's probability distributions to two variables—I, II *Indagationes Math.* **9**, 477 and 578 (1947). M **9**, 363
- Van Uven, M. J., Extension of Pearson's probability distributions to two variables—III, IV, *Indagationes Math.* **10**, 12 and 62 (1948). M **9**, 452
- Vatnsdal, J. R., Minimal variance and its relation to efficient moment tests, *Ann. Math. Statist.* **17**, 198 (1946). M **8**, 40
- Vaughan, H., Further enquiries into the summation method of graduation, *J. Inst. Actuar.* **66**, 463 (1935). Z **13**, 70
- Villars, D. S., A significance test and estimation in the case of exponential regression, *Ann. Math. Statist.* **18**, 596 (1947). M **9**, 363
- Vodička, V., Fonctions symétriques et leur application dans la statistique mathématique, *Acta Fac. Nat. Univ. Carol., Prague No.* **174**, 17 (1947).  
M **9**, 599
- Wald, A., Long cycles as a result of repeated integration, *Amer. Math. Monthly* **46**, 136 (1939).  
Z **21**, 45
- Wald, A., The fitting of straight lines if both variables are subject to error, *Ann. Math. Statist.* **11**, 285 (1940). M **2**, 108
- Weaver, C. L., A simple analytic proof of a general  $\chi^2$  theorem, *Amer. Math. Monthly* **54**, 529 (1947).  
M **9**, 195
- Weibull, W., New methods for computing parameters of complete or truncated distributions, *Flygtekn Försöksanstalt Rep.* **58**, 21 pp. (1955). M **17**, 278
- Weida, F. M., On measures of contingency, *Ann. Math. Statist.* **5**, 308 (1934). Z **11**, 33
- Wilkins, J. E., A note on skewness and kurtosis, *Ann. Math. Statist.* **15**, 333 (1944). M **6**, 91
- ♦Williams, E. J., Interpolation in a series of correlated observations, *Australian J. Appl. Sci.* **4**, 1 (1953). M **14**, 1104
- Williams, E. J., A method of analysis for double classifications, *Australian J. Appl. Sci.* **4**, 357, (1953). M **15**, 450
- Williams, J. D., Moments of the ratio of the mean square successive difference to the mean square difference in samples from a normal universe, *Ann. Math. Statist.* **12**, 239 (1941). M **3**, 7
- Wilson, E. B., On the proof of Sheppard's corrections, *Nat. Acad. Sci. USA, Proc.* **13**, 151 (1927).
- Wintner, A., Factorial moments and enumerating distributions, *Skand. Aktuarietidskr.* **32**, 63 (1949).  
M **11**, 173
- Wise, M. E., The effect of rounding off in samples, *Statistica (den Haag)* **8**, 169 (1954). M **16**, 1132
- Wishart, J., A comparison of the semi-invariants of the distributions of moment and semi-invariant estimates in samples from an infinite population, *Biometrika* **25**, 52 (1933). Z **7**, 124
- Wishart, J., Moment coefficients of the  $k$ -statistics in samples from a finite population, *Biometrika* **39**, 1 (1952). M **14**, 296
- Wishart, J., The factorial moments of the distribution of joins between line segments, *Biometrika* **41**, 555 (1954). M **16**, 381
- Wisniewski, J. K., A problem in least squares, *Ann. Math. Statist.* **8**, 145 (1937). Z **18**, 35
- Wisseroth, K., Die günstigste Verteilungsbreite, ein neues Streuungsmass, *Z. Angew. Math. Mech.* **25/27**, 126 (1947). M **9**, 294
- Wold, H., A study on the mean difference, concentration curves and concentration ratio, *Metron* **12**, 39 (1935). Z **11**, 315
- ♦Zappa, G., (See C. Gini), *Metron* **13**, 21 (1938).
- Zaycoff, R., Über die Zerlegung statistischer Zeitreihen in drei Komponenten, *Publ. Statist. Inst. Econ. Res. No.* **4**, 22 pp. (State Univ. of Sofia, 1936). Z **16**, 172
- Ziaud-Din, M., Expression of the  $k$ -statistics  $k_9$  and  $k_{10}$  in terms of power sums and sample moments, *Ann. Math. Statist.* **25**, 800 (1954). M **16**, 381
- Ziaud-Din, M., On contributions to sampling distribution from symmetric functional point of view, *Bull. Inst. Internat. Statist.* **24**, 207 (1954).  
M **16**, 1132
- Zoch, R. T., Invariants and covariants of certain frequency curves, *Ann. Math. Statist.* **5**, 124 (1934).  
Z **9**, 220
- Zoch, R. T., Some interesting features of frequency curves, *Ann. Math. Statist.* **6**, 1 (1935). Z **11**, 361  
(Paper 66B1-69)