

References

- [1] ABRAMOVITZ, M., AND STEGUN, I. A. *Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables*. National Bureau of Standards Applied Mathematics Series, 1972.
- [2] ACZEL, A. *Complete Business Statistics*. Irvin, 1996.
- [3] AHN, B. S. Preference relation approach for obtaining OWA operators weights. *International Journal of Approximate Reasoning* 47, 2 (2008), 166–178.
- [4] AHN, B. S. Parameterized OWA operator weights: An extreme point approach. *International Journal of Approximate Reasoning* 51, 7 (2010), 820–831.
- [5] ALONSO, S., CABRERIZO, F. J., HERRERA-VIEDMA, E., AND HERRERA, F. *h*-index: A review focused on its variants, computation and standardization for different scientific fields. *Journal of Informetrics* 3 (2009), 273–289.
- [6] ALONSO, S., CABRERIZO, F. J., HERRERA-VIEDMA, E., AND HERRERA, F. *hg*-index: A new index to characterize the scientific output of researchers based on the *h*- and *g*-indices. *Scientometrics* 82, 2 (2010), 391–400.
- [7] ANDERSON, T. R., HANKIN, R. K. S., AND KILLWORTH, P. D. Beyond the Durfee square: Enhancing the *h*-index to score total publication output. *Scientometrics* 69, 3 (2008), 577–588.
- [8] ARNOLD, B. C. Pareto and Generalized Pareto Distributions. In *Economic Studies in Equality, Social Exclusion and Well-Being*. 2008, pp. 119–145.
- [9] ARUNACHALAM, S. Citation analysis: Do we need a thoeory? *Scientometrics* 43, 1 (1998), 141–142.
- [10] BÅÅTH, R. The state of naming conventions in R. *The R Journal* 4, 2 (2012), 74–75.
- [11] BALL, P. Index aims for fair ranking of scientists. *Nature* 436 (2005), 900.
- [12] BAN, A. Approximation of fuzzy numbers by trapezoidal fuzzy numbers preserving the expected interval. *Fuzzy Sets and Systems* 159 (2008), 1327–1344.
- [13] BAN, A. On the nearest parametric approximation of a fuzzy number – revisited. *Fuzzy Sets and Systems* 160 (2009), 3027–3047.
- [14] BANEYX, A. *Publish or Perish* as citation metrics used to analyze scientific output in the humanities: International case studies in economics, geography, social sciences, philosophy, and history. *Archivum Immunologiae et Therapia Experimentalis* 56 (2008), 363–371.
- [15] BANKS, M. G. An extension of the Hirsch index: Indexing scientific topics and compounds. *Scientometrics* 69, 1 (2006), 161–168.
- [16] BAR-ILAN, J. H-index for price medalists revisited. *ISSI Newsletter* 2, 1 (2006), 3–5.
- [17] BAR-ILAN, J. Informetrics at the beginning of the 21st century — A review. *Journal of Informetrics* 2 (2008), 1–52.
- [18] BARCZA, K., AND TELCS, A. Paretian publication patterns imply Paretian Hirsch index. *Scientometrics* 81, 2 (2009), 513–519.
- [19] BARNETT, G. A., FINK, E. L., AND DEBUS, M. B. Mathematical model of academic citation age. *Communication research* 4, 16 (1989), 510–531.
- [20] BARRA, J. *Matematyczne podstawy statystyki*. PWN, Warszawa, 1982.
- [21] BARTŁOMIEJCZYK, L., AND DREWNIĄK, J. A characterization of sets and operations invariant under bijections. *Aequationes Mathematicae* 68 (2004), 1–9.
- [22] BARTNECK, C., AND KOKKELMANS, S. Detecting h-index manipulation through self-citation analysis. *Scientometrics* 87 (2011), 85–98.

- [23] BASU, A. A note on the connection between the Hirsch index and the Random Hierarchical model. *ISSI Newsletter* 3, 2 (2007), 24–27.
- [24] BATISTA, P. D., CAMPITELI, M. G., KINOCHI, O., AND MARTINEZ, A. S. Is it possible to compare researchers with different scientific interests? *Scientometrics* 68, 1 (2006), 179–189.
- [25] BECKER, R., CHAMBERS, J., AND WILKS, A. *The New S Language*. Chapman & Hall, 1998. „*The Blue Book*”.
- [26] BEIRLANT, J., GLÄNZEL, W., CARBONEZ, A., AND LEEMANS, H. Scoring research output using statistical quantile plotting. *Journal of Informetrics* 1 (2007), 185–192.
- [27] BELIAKOV, G., AND JAMES, S. Citation-based journal ranks: The use of fuzzy measures. *Fuzzy Sets and Systems* 167 (2011), 101–119.
- [28] BELIAKOV, G., AND JAMES, S. Stability of weighted penalty-based aggregation functions. *Fuzzy Sets and Systems* 226, 1 (2013), 1–18.
- [29] BELIAKOV, G., PRADERA, A., AND CALVO, T. *Aggregation functions: A guide for practitioners*. Springer-Verlag, 2007.
- [30] BELLOSTA, C. J. G. *ADGofTest: Anderson-Darling GoF test*, 2009. R package version 0.1.
- [31] BENJAMINI, Y., AND HOCHBERG, Y. Controlling False Discovery Rate: A practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society. Series B* 57, 1 (1995), 289–300.
- [32] BERMUDEZ, P. Z., AND KOTZ, S. Parameter estimation of the Generalized Pareto Distribution. Part II. *Journal of Statistical Planning and Inference* 140, 6 (2010), 1374–1388.
- [33] BICKEL, P., AND DOKSUM, K. *Mathematical Statistics: Basic Ideas and Selected Topics*. Holden-Day, 1977.
- [34] BIECEK, P. *Przewodnik po pakiecie R*. GiS, Wrocław, 2011.
- [35] BIECEK, P. *Analiza danych z programem R. Modele liniowe z efektami statymi, losowymi i mieszanymi*. PWN, Warszawa, 2012.
- [36] BODENHOFER, U. *A similarity-based generalization of fuzzy orderings*. PhD thesis, Johannes Kepler University, Linz, Austria, 1999.
- [37] BODENHOFER, U., DE BAETS, B., AND FODOR, J. A compendium of fuzzy weak orders: Representations and constructions. *Fuzzy Sets and Systems*, 158 (2007), 811–829.
- [38] BOELL, S. K., AND WILSON, C. S. Journal Impact Factors for evaluation scientific performance: Use of *h*-like indicators. *Scientometrics* 82 (2010), 613–626.
- [39] BOLLEN, J., RODRIGUEZ, M. A., AND VAN DE SOMPEL, H. Journal status. *Scientometrics* 69, 3 (2006), 669–687.
- [40] BONITZ, M. Ten years of Matthew effect for countries. *Scientometrics* 64, 3 (2005), 375–379.
- [41] BONNETT, X., SHINE, R., AND LOURDAIS, O. Taxonomic chauvinism. *TRENDS in Ecology and Evolution* 21, 4 (2002), 1–3.
- [42] BOOKSTEIN, A. Implications of ambiguity for scientometric measurement. *Journal of the American Society for Information Science and Technology* 52, 1 (2001), 74–79.
- [43] BORNMAN, L., AND DANIEL, H.-D. Convergent validation of peer review decisions using the *h* index. Extent of and reasons for type I and type II errors. *Journal of Informetrics* 1 (2007), 204–213.
- [44] BORNMAN, L., AND DANIEL, H.-D. What do we know about the *h* index? *Journal of the American Society for Information Science and Technology* 58, 9 (2007), 1381–1385.
- [45] BORNMAN, L., AND DANIEL, H.-D. What do citation counts measure? A review of studies on citing behavior. *Journal of Documentation* 64, 1 (2008), 45–80.
- [46] BORNMAN, L., AND DANIEL, H.-D. The state of *h* index research. *EMBO Reports* 10, 1 (2009), 2–5.
- [47] BORNMAN, L., MUTZ, R., AND DANIEL, H.-D. The *b* index as a measure of scientific excellence. A promising supplement to the *h* index. *Cybermetrics* 11, 1 (2007).

- [48] BORNMAN, L., MUTZ, R., AND DANIEL, H.-D. Latent Markov modeling applied to grant peer review. *Journal of Informetrics* 2, 3 (2008), 217–228.
- [49] BOROVSKIKH, Y. V., AND WEBER, N. C. Asymptotic distributions for a class of generalized L-statistics. *Bernoulli* 16, 4 (2010), 1177–1190.
- [50] BOYACK, K. W., KLAIVANS, R., AND BÖRNER, K. Mapping the backbone of science. *Scientometrics* 64, 3 (2005), 351–374.
- [51] BRAS-AMORÓS, M., DOMINGO-FERRER, J., AND TORRA, V. A bibliometric index based on the collaboration distance between cited and citing authors. *Journal of Informetrics* 5, 2 (2011), 248–264.
- [52] BRAUN, T., GLÄNZEL, W., AND SCHUBERT, A. A Hirsch-type index for journals. *Scientometrics* 69, 1 (2006), 169–173.
- [53] BRAVINGTON, M. Debugging without (too many) tears. *R News* 3, 3 (2003), 29–32.
- [54] BROADUS, R. N. Early approaches to bibliometrics. *Journal of the American Society for Information Science* 38, 2 (1987), 127–129.
- [55] BRUMBACK, R. A. Impact Factor Wars: Episode V — The Empire strikes back. *Journal of Child Neurology* 24, 3 (2009), 260–262.
- [56] BRUNELLI, M., AND MEZEI, J. *International Journal of Approximate Reasoning* 54 (2013), 627–639.
- [57] BUCHHOLZ, K. Criteria for the analysis of scientific quality. *Scientometrics* 32, 2 (1995), 195–218.
- [58] BURRELL, Q. L. A simple linear model for linked informetric processes. *Information Processing & Management* 28, 5 (1992), 637–645.
- [59] BURRELL, Q. L. The Kolmogorov-Smirnov test and rank-frequency distributions. *Journal of the American Society for Information Science* 45, 1 (1994), 59.
- [60] BURRELL, Q. L. Stochastic modelling of the first-citation distribution. *Scientometrics* 52, 1 (2001), 3–12.
- [61] BURRELL, Q. L. Predicting future citation behavior. *Journal of the American Society for Information Science and Technology* 54, 5 (2003), 372–378.
- [62] BURRELL, Q. L. Are “sleeping beauties” to be expected? *Scientometrics* 65, 3 (2005), 381–389.
- [63] BURRELL, Q. L. The use of Lotka functions and systematic sampling. *Scientometrics* 67, 2 (2006), 323–325.
- [64] BURRELL, Q. L. Hirsch index of Hirsch rate? Some thoughts arising from Liang’s data. *Scientometrics* 73, 1 (2007), 19–28.
- [65] BURRELL, Q. L. Hirsch’s h -index: A stochastic model. *Journal of Informetrics* 1 (2007), 16–25.
- [66] BURRELL, Q. L. On the h -index, the size of the Hirsch core and Jin’s A -index. *Journal of Informetrics* 1 (2007), 170–177.
- [67] BURRELL, Q. L. Extending Lotkaian informetrics. *Information Processing & Management* 44 (2008), 1794–1807.
- [68] BURRELL, Q. L. The publication/citation process at the micro level: A case study. In *Proc. WIS 2008, 4th Intl. Conf. Webometrics, Informetrics and Scientometrics & 9th COLLNET Meeting* (Berlin, 2008), H. Kretschmer and F. Havemann, Eds.
- [69] BURRELL, Q. L. Some comments on “The estimation of lost multi-copy documents: A new type of informetrics theory” by Egghe and Proot. *Journal of Informetrics* 2 (2008), 101–105.
- [70] BURRELL, Q. L. On Hirsch’s h , Egghe’s g and Kosmulski’s $h(2)$. *Scientometrics* 79, 1 (2009), 323–325.
- [71] CALVO, T., KOLESAROVA, A., KOMORNIKOVA, M., AND MESIAR, R. Aggregation operators: Properties, classes and construction methods. In Calvo et al. [73], pp. 3–104.
- [72] CALVO, T., AND MAYOR, G. Remarks on two types of extended aggregation functions. *Tatra Mountains Mathematical Publications* 16 (1999), 235–253.

- [73] CALVO, T., MAYOR, G., AND MESIAR, R., Eds. *Aggregation operators. New trends and applications*, vol. 97 of *Studies in Fuzziness and Soft Computing*. Physica-Verlag, New York, 2002.
- [74] CALVO, T., MAYOR, G., TORRENS, J., SUNER, J., MAS, M., AND CARBONELL, M. Generation of weighting triangles associated with aggregation functions. *International Journal of Uncertainty, Fuzziness and Knowledge-based Systems* 8, 4 (2000), 417–451.
- [75] CENA, A., AND GAGOLEWSKI, M. OM3: ordered maxitive, minitive, and modular aggregation operators – Part I: Axiomatic analysis under arity-dependence. In *Aggregation Functions in Theory and in Practise (AISC 228)*, H. Bustince et al., Eds. Springer-Verlag, Heidelberg, 2013, pp. 93–103.
- [76] CENA, A., AND GAGOLEWSKI, M. OM3: ordered maxitive, minitive, and modular aggregation operators – Part II: A simulation study. In *Aggregation Functions in Theory and in Practise (AISC 228)*, H. Bustince et al., Eds. Springer-Verlag, Heidelberg, 2013, pp. 105–115.
- [77] CHAMBERS, J. *Programming with Data*. Springer-Verlag, 1998. „*The Green Book*”.
- [78] CHAMBERS, J. *Software for Data Analysis. Programming with R*. Springer-Verlag, 2008.
- [79] CHAMBERS, J., AND HASTIE, T. *Statistical Models in S*. Chapman & Hall, 1992. „*The White Book*”.
- [80] CHANAS, S. On the interval approximation of a fuzzy number. *Fuzzy Sets and Systems* 122 (2001), 353–356.
- [81] CHEN, Y.-S., AND LEIMKUHLER, F. F. A relationship between Lotka’s law, Bradford’s law, and Zipf’s law. *Journal of the American Society for Information Science* 37, 5 (1986), 307–314.
- [82] CHOQUET, G. Theory of capacities. *Annales de l’institut Fourier* 5 (1954), 131–295.
- [83] CHOULAKIAN, V., AND STEPHENS, M. A. Goodness-of-fit tests for the Generalized Pareto Distribution. *Technometrics* 43, 4 (2001), 478–484.
- [84] COROIANU, L., GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. Nearest piecewise linear approximation of fuzzy numbers. *Fuzzy Sets and Systems* 233 (2013), 26–51.
- [85] COROIANU, L., GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. Nearest piecewise linear approximation of fuzzy numbers: General case, 2013. Submitted paper.
- [86] COSTAS, R., AND BORDONS, M. The h -index: Advantages, limitations and its relation with other bibliometric indicators at the micro level. *Journal of Informetrics* 1 (2007), 193–203.
- [87] COSTAS, R., AND BORDONS, M. Is g -index better than h -index? An exploratory study at the individual level. *Scientometrics* 77, 2 (2008), 267–288.
- [88] CRAIG, A. T., AND HOGG, R. V. *Intorudtion to Mathematical Statistics*. Macmillan Publishing Co., Inc., New York, 1978.
- [89] CRAWLEY, M. *Statistics: An Introduction Using R*. John Wiley & Sons, 2005.
- [90] CRAWLEY, M. *The R Book*. John Wiley & Sons, 2007.
- [91] CRONIN, B. Metatheorizing citation. *Scientometrics* 43, 1 (1998), 45–55.
- [92] ĆWIK, J., AND MIELNICZUK, J. *Statystyczne systemy uczące się. Ćwiczenia w oparciu o pakiet R*. OW Politechniki Warszawskiej, Warszawa, 2009.
- [93] DALGAARD, P. *Introductory Statistics with R*. Springer-Verlag, 2008.
- [94] D’ANGELO, C. A., GIUFFRIDA, C., AND ABRAMO, G. A heuristic approach to author name disambiguation in bibliometric databases for large-scale research assessments. *Journal of the American Society for Information Science and Technology* 62, 2 (2011), 257–269.
- [95] DASGUPTA, A. *Asymptotic theory of statistics and probability*. Springer-Verlag, New York, 2008.
- [96] DASGUPTA, M., AND DEB, R. Transitivity and fuzzy preferences. *Social Choice and Welfare* 13 (1996), 305–318.
- [97] DAVID, H. A., AND NAGARAJA, H. N. *Order statistics*. Wiley, 2003.

- [98] DAVIS, P. M. Reward or persuasion? The battle to define the meaning of a citation. *Learned Publishing* 21 (2009), 5–11.
- [99] DEINEKO, V. G., AND WOEGINGER, G. J. A new family of scientific impact measures: The generalized Kosmulski-indices. *Scientometrics* 80, 3 (2009), 819–826.
- [100] DEL CASTILLO, J., AND DAOUDI, J. Estimation of the Generalized Pareto Distribution. *Statistics and Probability Letters* 79 (2009), 684–688.
- [101] DELGADO, M., VILA, M., AND VOXMAN, W. On a canonical representation of a fuzzy number. *Fuzzy Sets and Systems* 93 (1998), 125–135.
- [102] DIAMOND, P., AND KLOEDEN, P. *Metric spaces of fuzzy sets. Theory and applications*. World Scientific, Singapore, 1994.
- [103] DUBOIS, D., AND PRADE, H. Operations on fuzzy numbers. *Int. J. Syst. Sci.* 9 (1978), 613–626.
- [104] DUBOIS, D., AND PRADE, H. The mean value of a fuzzy number. *Fuzzy Sets and Systems* 24 (1987), 279–300.
- [105] DUBOIS, D., AND PRADE, H. Semantics of quotient operators in fuzzy relational databases. *Fuzzy Sets and Systems* 78, 1 (1996), 89–93.
- [106] DUBOIS, D., PRADE, H., AND TESTEMALE, C. Weighted fuzzy pattern matching. *Fuzzy Sets and Systems* 28 (1988), 313–331.
- [107] EDDELBUETTEL, D. *Seamless R and C++ Integration with Rcpp*. Springer, New York, 2013.
- [108] EDDELBUETTEL, D., AND FRANÇOIS, R. Rcpp: Seamless R and C++ integration. *Journal of Statistical Software* 40, 8 (2011), 1–18.
- [109] EGGHE, L. Pratt’s measure for some bibliometric distributions and its relation with the 80/20 rule. *Journal of the American Society for Information Science* 38, 4 (1987), 288–297.
- [110] EGGHE, L. Mathematical theories of citation. *Scientometrics* 43, 1 (1998), 57–62.
- [111] EGGHE, L. Relations between the continuous and the discrete Lotka power function. *Journal of the American Society for Information Science and Technology* 56, 7 (2005), 664–668.
- [112] EGGHE, L. An improvement of the h -index: the g -index. *ISSI Newsletter* 2, 1 (2006), 8–9.
- [113] EGGHE, L. Theory and practise of the g -index. *Scientometrics* 69, 1 (2006), 131–152.
- [114] EGGHE, L. Item-time-dependent Lotkaian informetrics and applications to the calculation of the time-dependent h -index and g -index. *Mathematical and Computer Modelling* 45 (2007), 864–872.
- [115] EGGHE, L. Examples of simple transformations of the h -index: Qualitative and quantitative conclusions and consequences for other indices. *Journal of Informetrics* 2 (2008), 136–148.
- [116] EGGHE, L. The influence of merging on h -type indices. *Journal of Informetrics* 2, 3 (2008), 252–262.
- [117] EGGHE, L. Modelling successive h -indices. *Scientometrics* 77, 3 (2008), 377–387.
- [118] EGGHE, L. Mathematical study of h -index sequences. *Information Processing and Management* 45, 2 (2009), 288–297.
- [119] EGGHE, L. Performance and its relation with productivity in Lotkaian systems. *Scientometrics* 81, 2 (2009), 567–585.
- [120] EGGHE, L. Time-dependent Lotkaian informetrics incorporating growth of sources and items. *Mathematical and Computer Modelling* 49, 1–2 (2009), 31–37.
- [121] EGGHE, L. The Hirsch index and related impact measures. *Annual Review of Information Science and Technology* 44 (2010), 65–114.
- [122] EGGHE, L. Influence of adding or deleting items and sources on the h -index. *Journal of the American Society for Information Science and Technology* 61, 2 (2010), 370–373.
- [123] EGGHE, L., AND ROUSSEAU, R. An informetric model for the Hirsch-index. *Scientometrics* 69, 1 (2006), 121–129.

- [124] ETO, H. Scientometric definition of science: In what respect is the humanities more scientific than mathematical and social sciences? *Scientometrics* 76, 1 (2008), 23–42.
- [125] EUROPEAN ASSOCIATION OF SCIENCE EDITORS. EASE statement on inappropriate use of impact factors, 1998. URL: http://www.ease.org.uk/statements/EASE_statement_on_impact_factors.shtml.
- [126] EVERITT, B., AND HOTHORN, T. *A Handbook of Statistical Analyses Using R*. Chapman & Hall, 2006.
- [127] FIALA, D., ROUSSELOT, F., AND JEZEK, K. PageRank for bibliographic networks. *Scientometrics* 76, 1 (2008), 135–158.
- [128] FIELD, C., AND RONCHETTI, E. *Small sample asymptotics*. Institute of Mathematical Statistics, Hayward, CA, 1990.
- [129] FISHER, R. The correlation between relatives on the supposition of Mendelian inheritance. *Philosophical Transactions of the Royal Society of Edinburgh* 52 (1918), 399–433.
- [130] FISHER, R. On the mathematical foundations of theoretical statistics. *Philosophical Transactions of the Royal Society A* 222 (1922), 309–368.
- [131] FODOR, J., AND DE BAETS, B. Fuzzy preference modelling: Fundamentals and recent advances. In *Fuzzy Sets and Their Extensions: Representation, Aggregation and Models* (2008), H. B. et al, Ed., Springer-Verlag, pp. 207–217.
- [132] FODOR, J., AND ROUBENS, M. *Fuzzy Preference Modelling and Multicriteria Decision Support*. Springer, 1994.
- [133] FODOR, J. C., AND MARICHAL, J.-L. On nonstrict means. *Æquationes Mathematicæ* 54, 3 (1997), 308–327.
- [134] FRANCESCHET, M. A comparison of bibliometric indicators for computer science scholars and journals on *Web of Science* and *Google Scholar*. *Scientometrics* 83, 1 (2010), 243–258.
- [135] FRANCESCHINI, F., AND MAISANO, D. A. The Hirsch index in manufacturing and quality engineering. *Quality and Reliability Engineering International* 25 (2009), 987–995.
- [136] FRANCESCHINI, F., AND MAISANO, D. A. Analysis of the Hirsch index’s operational properties. *European Journal of Operational Research* 203, 2 (2010), 494–504.
- [137] FRANCESCHINI, F., AND MAISANO, D. A. Structured evaluation of the scientific output of academic research groups by recent *h*-based indicators. *Journal of Informetrics* 5 (2011), 64–74.
- [138] GAGOLEWSKI, M. A remark on limit properties of generalized *h*- and *g*- indices. *Journal of Informetrics* 3, 4 (2009), 367–368.
- [139] GAGOLEWSKI, M. *Aggregation operators and their application in a formal model for quality evaluation system of scientific research (Wybrane operatory agregacji i ich zastosowanie w modelu formalnym systemu jakości w nauce)*. PhD thesis, Systems Research Institute, Polish Academy of Sciences, 2011. (In Polish).
- [140] GAGOLEWSKI, M. Bibliometric impact assessment with R and the CITAN package. *Journal of Informetrics* 5, 4 (2011), 678–692.
- [141] GAGOLEWSKI, M. On the relation between effort-dominating and symmetric minitive aggregation operators. In *Advances in Computational Intelligence, Part III*, S. Greco et al., Eds., vol. 299. Springer-Verlag, 2012, pp. 276–285.
- [142] GAGOLEWSKI, M. *CITAN: CITation ANalysis toolpack*, 2013. <http://CRAN.R-project.org/package=CITAN>.
- [143] GAGOLEWSKI, M. Dispersion functions: Aggregation operators that measure variability, spread, or scatter of numeric sequences, 2013. Submitted paper.
- [144] GAGOLEWSKI, M. *FuzzyNumbers: Tools to deal with fuzzy numbers in R*, 2013. <http://FuzzyNumbers.rexamine.com>.
- [145] GAGOLEWSKI, M. On the relationship between symmetric maxitive, minitive, and modular aggregation operators. *Information Sciences* 221 (2013), 170–180.

- [146] GAGOLEWSKI, M. Scientific impact assessment cannot be fair. *Journal of Informetrics* 7, 4 (2013), 792–802.
- [147] GAGOLEWSKI, M. Statistical hypothesis test for the difference between Hirsch indices of two Pareto-distributed random samples. In *Synergies of Soft Computing and Statistics for Intelligent Data Analysis*, R. Kruse et al., Eds., vol. 190. Springer-Verlag, 2013, pp. 359–367.
- [148] GAGOLEWSKI, M. *Programowanie w języku R. Analiza danych, obliczenia, symulacje*. Wydawnictwo Naukowe PWN, 2014.
- [149] GAGOLEWSKI, M., AND CENA, A. *agop: Aggregation operators and preordered sets in R*, 2013. <http://agop.rexamine.com>.
- [150] GAGOLEWSKI, M., DĘBSKI, M., AND NOWAKIEWICZ, M. Efficient algorithm for computing certain graph-based monotone integrals: The l_p -indices. In *Proc. Uncertainty Modeling* (2013), R. Mesiar and T. Bacigal, Eds., pp. 17–23.
- [151] GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. A geometric approach to the construction of scientific impact indices. *Scientometrics* 81, 3 (2009), 617–634.
- [152] GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. Possible and necessary h -indices. In *Proc. IFSA/Eusflat 2009* (2009), J. P. Carvalho et al., Eds., pp. 1691–1695.
- [153] GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. Arity-monotonic extended aggregation operators. In *Information Processing and Management of Uncertainty in Knowledge-Based Systems*, E. Hüllermeier et al., Eds., vol. 80. Springer-Verlag, 2010, pp. 693–702.
- [154] GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. Metody i problemy naukometrii. In *Psychologia i informatyka. Synergia i kontradycje*, T. Rowiński and R. Tadeusiewicz, Eds. Wyd. UKSW, Warszawa, 2010, pp. 103–125.
- [155] GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. S-statistics and their basic properties. In *Combining Soft Computing and Statistical Methods in Data Analysis*, C. Borgelt et al., Eds. Springer-Verlag, 2010, pp. 281–288.
- [156] GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. Axiomatic characterizations of (quasi-) L-statistics and S-statistics and the Producer Assessment Problem. In *Proc. Eusflat/LFA 2011* (2011), S. Galichet et al., Eds., pp. 53–58.
- [157] GAGOLEWSKI, M., AND GRZEGORZEWSKI, P. Possibilistic analysis of arity-monotonic aggregation operators and its relation to bibliometric impact assessment of individuals. *International Journal of Approximate Reasoning* 52, 9 (2011), 1312–1324.
- [158] GAGOLEWSKI, M., AND MESIAR, R. Aggregating different paper quality measures with a generalized h -index. *Journal of Informetrics* 6, 4 (2012), 566–579.
- [159] GAGOLEWSKI, M., AND MESIAR, R. Monotone measures and universal integrals in a uniform framework for the scientific impact assessment problem. *Information Sciences* (2014). doi:10.1016/j.ins.2013.12.004.
- [160] GAGOLEWSKI, M., AND TARTANUS, B. *stringi: THE string processing package for R*, 2013. <http://stringi.rexamine.com>.
- [161] GARCIA-PEREZ, M. A multidimensional extension to Hirsch’s h -index. *Scientometrics* 81, 3 (2009), 779–785.
- [162] GARFIELD, E. Citation indexes for science. *Science* 122, 3159 (1955), 108–111.
- [163] GARFIELD, E. Can citation indexing be automated? In *Proc. Statistical Association Methods for Mechanized Documentation* (Washington, 1964), M. E. Stevens, V. E. Giuliano, and L. B. Heilprin, Eds., pp. 189–192.
- [164] GARFIELD, E. Random thoughts on citationology. Its theory and practice. *Scientometrics* 43, 1 (1998), 69–76.
- [165] GARFIELD, E. The history and meaning of the Journal Impact Factor. *Journal of American Medical Association* 295, 1 (2006), 90–93.

- [166] GARFIELD, E., PUDOVKIN, A. I., AND ISTOMIN, V. S. Why do we need algorithmic historiography? *Journal of the American Society for Information Science and Technology* 54, 5 (2003), 400–412.
- [167] GENTLE, J. *Random Number Generation and Monte Carlo Methods*. Springer-Verlag, 2003.
- [168] GENTLE, J. *Computational Statistics*. Springer-Verlag, 2009.
- [169] GHISELLI RICCI, R., AND MESIAR, R. Multi-attribute aggregation operators. *Fuzzy Sets and Systems* 181, 1 (2011), 1–13.
- [170] GLÄNZEL, W. On the h -index — A mathematical approach to a new measure of publication activity and citation impact. *Scientometrics* 67, 2 (2006), 315–321.
- [171] GLÄNZEL, W. On the opportunities and limitations of the H-index. *Science Focus* 1, 1 (2006), 10–11.
- [172] GLÄNZEL, W. Some new applications of the h -index. *ISSI Newsletter* 3, 2 (2007), 28–31.
- [173] GLÄNZEL, W. H-index concatenation. *Scientometrics* 77, 2 (2008), 369–372.
- [174] GLÄNZEL, W. On some new bibliometric applications of statistics related to the h -index. *Scientometrics* 77, 1 (2008), 187–196.
- [175] GLÄNZEL, W. Seven myths in bibliometrics. About facts and fiction in quantitative science studies. *COLLNET Journal of Scientometrics and Information Management* 2, 1 (2008), 9–17.
- [176] GLÄNZEL, W., AND PERSSON, O. H-index for price medalists. *ISSI Newsletter* 1, 4 (2005), 15–18.
- [177] GONZALEZ-PEREIRA, B., GUERRERO-BOTE, V., AND MOYA-ANEGÓN, F. A new approach to the metric of journals scientific prestige: The SJR indicator. *Journal of Informetrics* 4, 3 (2010), 379–391.
- [178] GONZALEZ-PEREIRA, B., GUERRERO-BOTE, V. P., AND DE MOYA-ANEGON, F. A new approach to the metric of journals’ scientific prestige: The SJR indicator. *Journal of Informetrics* 4, 3 (2010), 379–391.
- [179] GRABISCH, M. k -order additive discrete fuzzy measures and their representation. *Fuzzy Sets and Systems* 92, 167–189 (1997).
- [180] GRABISCH, M. A graphical interpretation of the Choquet integral. *IEEE Transactions on Fuzzy Systems* 8, 5 (2000), 627–631.
- [181] GRABISCH, M. How to score alternatives when criteria are scored on an ordinal scale. *Journal of Multi-Criteria Decision Analysis* 15 (2008), 31–44.
- [182] GRABISCH, M., MARICHAL, J.-L., MESIAR, R., AND PAP, E. *Aggregation functions*. Cambridge University Press, 2009.
- [183] GRABISCH, M., MARICHAL, J.-L., MESIAR, R., AND PAP, E. Aggregation functions: Construction methods, conjunctive, disjunctive and mixed classes. *Information Sciences* 181 (2011), 23–43.
- [184] GRABISCH, M., MARICHAL, J.-L., MESIAR, R., AND PAP, E. Aggregation functions: Means. *Information Sciences* 181 (2011), 1–22.
- [185] GROES, E., JACOBSEN, H. J., SLOTH, B., AND TRANÆS, T. Axiomatic characterizations of the Choquet integral. *Economic Theory* 12 (1998), 441–448.
- [186] GROSS, P. L. K., AND GROSS, E. M. College libraries and chemical education. *Science* 66, 1713 (1927), 385–389.
- [187] GRZEGORZEWSKI, P. Metrics and orders in space of fuzzy numbers. *Fuzzy Sets and Systems* 97 (1998), 83–94.
- [188] GRZEGORZEWSKI, P. Algorithms for trapezoidal approximations of fuzzy numbers preserving the expected interval. In *Foundations of Reasoning Under Uncertainty* (2010), B.-M. B. et al, Ed., Springer, pp. 85–98.
- [189] GRZEGORZEWSKI, P., GAGOLEWSKI, M., HRYNIEWICZ, O., AND GIL, M. A. *Strengthening Links Between Data Analysis and Soft Computing*. Springer-Verlag, 2014.
- [190] GRZEGORZEWSKI, P., AND PASTERNAK-WINIARSKA, K. Trapezoidal approximations of fuzzy numbers with restrictions on the support and core. In *Proc. EUSFLAT/LFA 2011* (2011), Atlantic Press, pp. 749–756.

- [191] GUAN, J. C., AND GAO, X. Exploring the h -index at patent level. *Journal of the American Society for Information Science and Technology* 60, 1 (2009), 35–40.
- [192] GUNS, R., AND ROUSSEAU, R. Real and rational variants of the h -index and the g -index. *Journal of Informetrics* 3, 1 (2009), 64–71.
- [193] GUNS, R., AND ROUSSEAU, R. Simulating growth of the h -index. *Journal of the American Society for Information Science and Technology* 60, 2 (2009), 410–417.
- [194] GUPTA, B. M., SHARMA, L., AND KARISIDDAPPA, C. R. Modelling the growth of papers in a scientific speciality. *Scientometrics* 33, 2 (1995), 187–201.
- [195] HARZING, A.-W., AND VON DER WALL, R. A Google Scholar h -index for journals: An alternative metric to measure journal impact in economics and business. *Journal of the American Society for Information Science and Technology* 60, 1 (2009), 41–46.
- [196] HARZING, A. W. K., AND VAN DER WAL, R. Google Scholar as a new source for citation analysis? *Ethics in Science and Environmental Politics* 8, 1 (2008), 62–71.
- [197] HASTIE, T., TIBSHIRANI, R., AND FRIEDMAN, J. *The Elements of Statistical Learning: Data Mining, Inference, and Prediction*. Springer-Verlag, 2009.
- [198] HELMERS, R., AND RUYMGAART, F. H. Asymptotic normality of generalized L-statistics with unbounded scores. *Journal of Statistical Planning and Inference* 19 (1988), 43–53.
- [199] HIRSCH, J. E. An index to quantify individual’s scientific research output. *Proceedings of the National Academy of Sciences* 102, 46 (2005), 16569–16572.
- [200] HIRSCH, J. E. Does the h -index have predictive power? *Proceedings of the National Academy of Sciences* 104, 49 (2007), 19193–19198.
- [201] Hoeffding, W. Probability inequalities for sums of bounded random variables. *Journal of the American Statistical Association* 58, 301 (1963), 13–30.
- [202] HORNIK, K., AND MURDOCH, D. Watch your spelling! *The R Journal* 3, 2 (2011), 22–28.
- [203] HOU, H., KRETSCHMER, H., AND LIU, Z. The structure of scientific collaboration networks in *Scientometrics*. *Scientometrics* 75, 2 (2008), 189–202.
- [204] HUBER, J. C. A new method for analyzing scientific productivity. *Journal of the American Society for Information Science and Technology* 52, 13 (2001), 1089–1099.
- [205] HUBER, J. C. A new model that generates Lotka’s law. *Journal of the American Society for Information Science and Technology* 53, 3 (2002), 209–219.
- [206] HYNDMAN, R. J., AND FAN, Y. Sample quantiles in statistical packages. *The American Statistician* 50, 4 (1996), 361–365.
- [207] IVANCHEVA, L. Scientometrics today: A methodological overview. In *Proc. WIS 2008, 4th Intl. Conf. Webometrics, Informetrics and Scientometrics & 9th COLLNET Meeting* (Berlin, 2008), H. Kretschmer and F. Havemann, Eds.
- [208] JACSO, P. The plausability of computing the h -index of scholarly productivity and impact using reference-enhanced databases. *Online Information Review* 32, 2 (2008), 266–283.
- [209] JAKUBOWSKI, J., AND SZTENCEL, R. *Wstęp do teorii prawdopodobieństwa*. Script, Warszawa, 2010.
- [210] JAMES, D. A. *RSQLite: SQLite interface for R*, 2010. R package version 0.9-4.
- [211] JAWORSKI, P., DURANTE, F., HÄRDLE, W., AND RYCHLIK, T. *Copula Theory and Its Applications*. Springer-Verlag, 2010.
- [212] JENSEN, P., ROUQUIER, J.-B., AND CROISSANT, Y. Testing bibliometric indicators by their prediction of scientific promotions. *Scientometrics* 78, 3 (2009), 467–479.
- [213] JIN, B., LIANG, L., ROUSSEAU, R., AND EGGHE, L. The R- and AR-indices: Complementing the h -index. *Chinese Science Bulletin* 52, 6 (2007), 855–863.

- [214] JONES, O., MAILLARD, R., AND ROBINSON, A. *Introduction to Scientific Programming and Simulation Using R*. Chapman & Hall/CRC, 2009.
- [215] KATE, S., AND BHAPKAR, H. *Basic of Mathematics*. Technical Publication Pune, 2010.
- [216] KATSAROS, D., AKRITIDIS, L., AND BOZANIS, P. Spam: it's not just for inboxes and search engines! Making Hirsch h -index robust to scientospam. arXiv:0801.0386v1 [cs.DL], 2008.
- [217] KELLY, C. D., AND JENNIONS, M. D. The h index and career assessment by numbers. *TRENDS in Ecology and Evolution* 21, 4 (2006), 167–170.
- [218] KERNS, G. *Introduction to Probability and Statistics Using R*. 2011. www.ipsur.org.
- [219] KIERZEK, R. Polska nauka w indeksie Hirscha. *Biuletyn MNiSW* 137, 6–7 (2008), 29–35.
- [220] KIERZEK, R. Jak porównać „apples and oranges”, czyli o różnych metodach analizy publikowalności i dorobku naukowego. *Biuletyn MNiSW* 143, 2 (2009), 33–41.
- [221] KLEMENT, E., MANZI, M., AND MESIAR, R. Ultramodular aggregation functions. *Information Sciences* 181 (2011), 4101–4111.
- [222] KLEMENT, E., MESIAR, R., AND PAP, E. A universal integral as common frame for Choquet and Sugeno integral. *IEEE Transactions on Fuzzy Systems* 18 (2010), 178–187.
- [223] KOPPEL, M., SCHLER, J., AND ARGAMON, S. Computational methods in authorship attribution. *Journal of the American Society for Information Science and Technology* 60, 1 (2009), 9–26.
- [224] KORONACKI, J., AND ĆWIK, J. *Statystyczne systemy uczące się*. WNT, Warszawa, 2005.
- [225] KORONACKI, J., AND MIELNICZUK, J. *Statystyka*. WNT, Warszawa, 2001.
- [226] KOSMULSKI, M. A new Hirsch-type index saves time and works equally well as the original h -index. *ISSI Newsletter* 2, 3 (2006), 4–6.
- [227] KOSMULSKI, M. MAXPROD — A new index for assessment of the scientific output of an individual, and a comparison with the h -index. *Cybermetrics* 11, 1 (2007), .
- [228] KOSTOFF, R. N. The use and misuse of citation analysis in research evaluation. *Scientometrics* 43, 1 (1998), 27–43.
- [229] KRAUSE, A., AND OLSON, M. *The Basics of S-PLUS*. Springer-Verlag, 2005.
- [230] KUŚ, M., MANKIEWICZ, L., AND ŻYCKOWSKI, K. Porównywanie indeksów Hirscha uczonych i instytucji naukowych. *Biuletyn MNiSW* 144, 3 (2009), 30–33.
- [231] LAVINE, M. *Introduction to Statistical Thought*. 2010. www.math.umass.edu/~lavine/Book/book.html.
- [232] LAWRENCE, M., AND TEMPLE LANG, D. RGtk2: A graphical user interface toolkit for R. *Journal of Statistical Software* 37, 8 (2010), 1–52.
- [233] LEHMANN, S., JACKSON, A. D., AND LAUTRUP, B. E. A quantitative analysis of indicators of scientific performance. *Scientometrics* 76, 2 (2008), 369–390.
- [234] LEYDESDORFF, L. Various methods for the mapping of science. *Scientometrics* 11, 5–6 (1987), 295–324.
- [235] LEYDESDORFF, L. Theories of citation? *Scientometrics* 43, 1 (1998), 5–25.
- [236] LEYDESDORFF, L. The non-linear dynamics of meaning-processing in social systems. *Social Science Information* 48, 1 (2009), 5–33.
- [237] LEYDESDORFF, L., AND OPTHOFF, T. Scopus' source normalized impact per paper (snip) versus the journal impact factor based on fractional counting of citations. *Journal of the American Society for Information Science and Technology* 61, 11 (2010), 2365–2396.
- [238] LI, W. Random texts exhibit Zipf's-law-like word frequency distribution. *IEEE Transactions on Information Theory* 38, 6 (1992), 1842–1845.
- [239] LISEE, C., LARIVIERE, V., AND ARCHAMBAULT, E. Conference proceedings as a source of scientific information: A bibliometric analysis. *Journal of the American Society for Information Science and Technology* 59, 11 (2008), 1776–1784.

- [240] LIU, Y., AND ROUSSEAU, R. Hirsch-type indices and library management: The case of Tongji University Library. In *Proc. ISSI 2007* (Madrid, 2007), D. Torres-Salinas and H. F. Moed, Eds., CINDOC-CSIC, pp. 514–522.
- [241] LIU, Y., AND ROUSSEAU, R. Definitions of time series in citation analysis with special attention to the h -index. *Journal of Informetrics* 2, 3 (2008), 202–210.
- [242] LIZASOAIN, I. Quasi-OWA operators on complete lattices. In *Aggregation Functions in Theory and in Practise (AISC 228)* (2013), H. Bustince, J. Fernandez, R. Mesiar, and T. Calvo, Eds., Springer-Verlag, pp. 521–532.
- [243] LIZASOAIN, I., AND MORENO, C. OWA operators defined on complete lattices. *Fuzzy Sets and Systems* 224 (2013), 36–52.
- [244] LUCENO, A. Fitting the Generalized Pareto Distribution to data using maximum goodness-of-fit estimators. *Computational Statistics and Data Analysis* 1, 2 (2006), 904–917.
- [245] MA, N., GUAN, J., AND ZHAO, Y. Bringing PageRank to the citation analysis. *Information Processing & Management* 44 (2008), 800–810.
- [246] MACROBERTS, M. H., AND MACROBIERTS, B. R. Problems of citation analysis: A study of uncited and seldom-cited influences. *Journal of the American Society for Information Science and Technology* 61, 1 (2010), 1–13.
- [247] MAGIERA, R. *Modele i metody statystyki matematycznej. Część I. Rozkłady i symulacja stochastyczna*. GiS, Wrocław, 2007.
- [248] MAGIERA, R. *Modele i metody statystyki matematycznej. Część II. Wnioskowanie statystyczne*. GiS, Wrocław, 2007.
- [249] MAKINO, J. Productivity of research groups — Relation between citation analysis and reputation within research communities. *Scientometrics* 43, 1 (1998), 87–93.
- [250] MALLIG, N. A relational database for bibliometric analysis. *Journal of Informetrics* 4, 4 (2010), 564–580.
- [251] MARCHANT, T. An axiomatic characterization of the ranking based on the h -index and some other bibliometric rankings of authors. *Scientometrics* 80, 2 (2009), 325–342.
- [252] MARCHANT, T. Score-based bibliometric rankings of authors. *Journal of the American Society for Information Science and Technology* 60, 6 (2009), 1132–1137.
- [253] MARICHAL, J.-L. On an axiomatization of the quasi-arithmetic mean values without the symmetry axiom. *Æquationes Mathematicæ* 59, 1–2 (2000), 74–83.
- [254] MARICHAL, J.-L. On order invariant synthesizing function. *Journal of Mathematical Psychology* 46, 6 (2002), 661–676.
- [255] MARICHAL, J.-L., AND MATHONET, P. On comparison meaningfulness of aggregation functions. *Journal of Mathematical Psychology* 45, 2 (2001), 213–223.
- [256] MARICHAL, J.-L., MATHONET, P., AND TOUSSET, E. Characterization of some aggregation functions stable for positive linear transformations. *Fuzzy Sets and Systems* 102 (1997), 293–314.
- [257] MARICHAL, J.-L., AND MESIAR, R. Aggregation of finite ordinal scales by scale independent functions. *Order* 21, 2 (2004), 155–180.
- [258] MARICHAL, J.-L., MESIAR, R., AND RÜCKSCHLOSSOVA, T. A complete description of comparison meaningful functions. *Æquationes Mathematicæ* 69 (2005), 309–320.
- [259] MARICHAL, J.-L., AND RUBENS, M. Characterization of some stable aggregation functions. In *Proc. 1st Conf. on Industrial Engineering and Production Management (IEPM'93)* (1993), pp. 187–196.
- [260] MARSAGLIA, G., AND MARSAGLIA, J. Evaluating the Anderson-Darling distribution. *Journal of Statistical Software* 9, 2 (2004).
- [261] MATLOFF, N. *The Art of R Programming: A Tour of Statistical Software Design*. No Starch Press, 2011.
- [262] MATLOFF, N., AND SALZMAN, P. *The Art of Debugging with GDB, DDD, and Eclipse*. No Starch Press, 2008.

- [263] MATSUMOTO, M., AND NISHIMURA, T. Mersenne twister: A 623-dimensionally equidistributed uniform pseudo-random number generator. *ACM Transactions on Modeling and Computer Simulation* 8, 1 (1998), 3–30.
- [264] MAYOR, G., AND CALVO, T. On extended aggregation functions. In *Proc. IFSA 1997* (Prague, 1997), vol. 1, Academia, pp. 281–285.
- [265] MEHO, L. I., AND ROGERS, Y. Citation counting, citation ranking, and h -index of human-computer interaction researchers: A comparison between *Scopus* and *Web of Science*. *Journal of the American Society for Information Science and Technology* 59, 11 (2008), 1711–1726.
- [266] MEHO, L. I., AND SUGIMOTO, C. R. Assessing the scholarly impact of information studies: A tale of two citation databases — *Scopus* and *Web of Science*. *Journal of the American Society for Information Science and Technology* 60, 12 (2009), 2499–2508.
- [267] MESIAR, R., AND MESIAROVÁ-ZEMÁNKOVÁ, A. The ordered modular averages. *IEEE Transactions on Fuzzy Systems* 19, 1 (2011), 42–50.
- [268] MESIAR, R., AND PAP, E. Aggregation of infinite sequences. *Information Sciences* 178 (2008), 3557–3564.
- [269] MESIAR, R., AND RÜCKSCHLOSSOVA, T. Characterization of invariant aggregation operators. *Fuzzy Sets and Systems* 142 (2004), 63–73.
- [270] MESIAR, R., AND STUPNĚANOVÁ, A. Decomposition integrals. *International Journal of Approximate Reasoning* 54, 8 (2013), 1252–1259.
- [271] MINGERS, J., AND LIPKINS, E. A. Counting the citations: A comparison of *Web of Science* and *Google Scholar* in the field of business and management. *Scientometrics* 85 (2010), 613–625.
- [272] MITTAL, H. *R Graphs Cookbook*. Packt Publishing, 2011.
- [273] MIYAMOTO, S. Application of rough sets to information retrieval. *Journal of the American Society for Information Science* 49, 3 (1998), 195–205.
- [274] MOED, H. F. Measuring contextual citation impact of scientific journals. *Journal of Informetrics* 4, 3 (2010), 265–277.
- [275] MUENCHEN, R. *R for SAS and SPSS Users*. Springer-Verlag, 2011.
- [276] MUENCHEN, R., AND HILBE, J. *R for Stata Users*. Springer-Verlag, 2010.
- [277] MURRELL, P. *R Graphics*. Chapman & Hall/CRC, 2006.
- [278] MURRELL, P. Raster images in R graphics. *The R Journal* 3, 1 (2011), 48–54.
- [279] NAIR, G. M., AND TURLACH, B. A. The stochastic h -index. *Journal of Informetrics* 6, 1 (2012), 80–87.
- [280] NARUKAWA, Y., AND TORRA, V. Multidimensional generalized fuzzy integral. *Fuzzy Sets and Systems* 160 (2009), 802–815.
- [281] NELSEN, R. *An Introduction to Copulas*. Springer-Verlag, 1999.
- [282] NICHOLLS, P. T. Estimation of Zipf parameters. *Journal of the American Society for Information Science* 38, 6 (1987), 443–445.
- [283] NICHOLLS, P. T. Bibliometric modeling processes and the empirical validity of Lotka’s law. *Journal of the American Society for Information Science* 40, 6 (1989), 379–385.
- [284] NICOLINI, C., VAKULA, S., ITALO BALLA, M., AND GANDINI, E. Can the assignment of university chairs be automated? *Scientometrics* 32, 2 (1995), 93–107.
- [285] NORRIS, M., AND OPPENHEIM, C. Peer review and the h -index: Two studies. *Journal of Informetrics* 4 (2010), 221–232.
- [286] NOWAK, P. *Bibliometria. Webometria. Podstawy. Wybrane zastosowania*. UAM, Poznań, 2008.
- [287] ORLOV, A. I. The connection between mean quantities and admissible transformations. *Mathematical Notes* 30, 4 (1981), 774–778.

- [288] OVCHINNIKOV, S., AND DUKHOVNY, A. On order invariant aggregation functionals. *Journal of Mathematical Psychology* 46 (2002), 12–18.
- [289] PALACIOS-HUERTA, I., AND VOLIJ, O. The measurement of intellectual influence. *Econometrica* 72, 3 (2004), 963–977.
- [290] PANARETOS, J., AND MALESIOS, C. Assessing scientific research performance and impact with single indices. *Scientometrics* 81, 3 (2009), 635–670.
- [291] PENEVA, V., AND POPCHEV, I. Aggregation of fuzzy preference relations to multicriteria decision making. *Fuzzy Optimization and Decision Making* 6 (2007), 351–365.
- [292] PITMAN, E. The estimation of the location and scale parameters of a continuous population of any given form. *Biometrika* 30 (1939), 391–421.
- [293] PODLUBNY, I. Comparison of scientific impact expressed by the number of citations in different fields of science. *Scientometrics* 64, 1 (2005), 95–99.
- [294] PRATHAP, G. Is there a place for a mock h -index? *Scientometrics* 84 (2010), 153–165.
- [295] PRICE, D. J. Networks of scientific papers. *Science* 149, 3683 (1965), 510–515.
- [296] PROŃ, A., AND SZATYŁOWICZ, H. Habilitacja dodaje „skrzydeł”? *Forum Akademickie* 3 (2006).
- [297] PRPIĆ, K. Science ethics: A study of eminent scientists’ professional values. *Scientometrics* 43, 2 (1998), 269–298.
- [298] QUESADA, A. Monotonicity and the Hirsch index. *Journal of Informetrics* 3, 2 (2009), 158–160.
- [299] QUESADA, A. More axiomatics for the Hirsch index. *Scientometrics* 82 (2010), 413–418.
- [300] QUESADA, A. Axiomatics for the hirsch index and the egghe index. *Journal of Informetrics* 5, 3 (2011), 476–480.
- [301] QUESADA, A. Further characterizations of the Hirsch index. *Scientometrics* 87 (2011), 107–114.
- [302] RAO, C. R. *Statistics and truth. Putting chance to work.* World Scientific Publishing, 1999.
- [303] RIPLEY, B. Internationalization features of R 2.1.0. *R News* 5, 1 (2005), 2–7.
- [304] ROBERT, C., AND CASELLA, G. *Monte Carlo Statistical Methods.* Springer-Verlag, 2004.
- [305] ROUBENS, M., AND VINCKE, P. *Preference modeling.* Lecture Notes in Economics and Mathematical Systems 250. Springer-Verlag, Berlin, 1985.
- [306] ROUSSEAU, R. Relations between continuous versions of bibliometric laws. *Journal of the American Society for Information Science* 41, 3 (1990), 197–203.
- [307] ROUSSEAU, R. Citation analysis as a theory of friction or polluted air? *Scientometrics* 43, 1 (1998), 63–67.
- [308] ROUSSEAU, R. The influence of missing publications on the Hirsch index. *Journal of Informetrics* 1, 1 (2007), 2–7.
- [309] ROUSSEAU, R. Reflections on recent developments of the h -index and h -type indices. *COLLNET Journal of Scientometrics and Information Management* 2, 1 (2008), 1–8.
- [310] ROUSSEAU, R. Woeginger’s axiomatisation of the h -index and its relation to the g -index, the $h(2)$ -index and the r^2 -index. *Journal of Informetrics* 2, 4 (2008), 335–340.
- [311] RUBIN, D., AND LITTLE, R. *Statistical Analysis with Missing Data.* John Wiley & Sons, 2002.
- [312] RYTGAARD, M. Estimation in the Pareto distribution. *ASTIN bulletin* 20, 2 (1990), 201–216.
- [313] SARKAR, D. *Lattice: Multivariate Data Visualization with R.* Springer-Verlag, 2008.
- [314] SCHMIDBERGER, M., MORGAN, M., EDELBUETTEL, D., YU, H., TIERNEY, L., AND MANSMANN, U. State of the art in parallel computing with R. *Journal of Statistical Software* 31, 1 (2009), 1–27.
- [315] SCHREIBER, M. How to modify the g -index for multi-authored manuscripts. *Journal of Informetrics* 4, 1 (2001), 42–52.

- [316] SCHREIBER, M. A case study of Hirsch index for 26 non-prominent physicists. *Annalen der Physik* 16, 9 (2007), 640–652.
- [317] SCHREIBER, M. A modification of the h -index: The h_m -index accounts for multi-authored manuscripts. *Journal of Informetrics* 2, 3 (2008), 211–216.
- [318] SCHREIBER, M. A case study of the modified Hirsch index h_m accounting for multiple coauthors. *Journal of the American Society for Information Science and Technology* 60, 6 (2009), 1274–1282.
- [319] SCHREIBER, M. Fractionalized counting of publications for the g -index. *Journal of the American Society for Information Science and Technology* 60, 10 (2009), 2145–2150.
- [320] SCHUBERT, A. Using the h -index for assessing single publications. *Scientometrics* 78, 3 (2009), 559–565.
- [321] SCHUBERT, A., AND GLÄNZEL, W. A systematic analysis of Hirsch-type indices for journals. *Journal of Informetrics* 1 (2007), 179–184.
- [322] SCHUBERT, A., KORN, A., AND TELCS, A. Hirsch-type indices for characterizing networks. *Scientometrics* 78, 2 (2009), 375–382.
- [323] SCHUTTE, H. K., AND SVEC, J. G. Reaction of *Folia Phoniatica et Logopaedica* on the current trend of Impact Factor measures. *Folia Phoniatica et Logopaedica* 59 (2007), 281–285.
- [324] SERFLING, R. J. *Approximation theorems of mathematical statistics*. John Wiley & Sons, New York, 1980.
- [325] SHAO, J. *Mathematical Statistics*. Springer, 2007.
- [326] SHEVTSOVA, I. G. Sharpening of the upper bound of the absolute constant in the Berry-Esseen inequality. *Theory of Probability and its Applications* 51, 3 (2007).
- [327] SHIGANOV, I. S. Refinement of the upper bound of the constant in the central limit theorem. *Journal of Mathematical Sciences* 35, 3 (1986), 2545–2550.
- [328] SHILKRET, N. Maxitive measure and integration. *Indagationes Mathematicæ* 33 (1971), 109–116.
- [329] SHUMWAY, R., AND D.S., D. S. *Time Series Analysis and Its Applications with R Examples*. Springer-Verlag, 2011.
- [330] SIDIROPOULOS, A., KATSAROS, D., AND MANOLOPOULOS, Y. Generalized h -index for disclosing latent facts in citation networks. *Scientometrics* 72, 2 (2007), 253–280.
- [331] SIMKIN, M. V., AND ROYCHOWDHURY, V. P. Read before you cite! *Complex Syst.* 14 (2003), 269–274.
- [332] SMALL, H. Citations and consilience in science. *Scientometrics* 43, 1 (1998), 143–148.
- [333] SMALL, H. Paradigms, citations, and maps of science: A personal history. *Journal of the American Society for Information Science and Technology* 54, 5 (2003), 394–399.
- [334] SOETAERT, K., PETZOLDT, T., AND SETZER, R. Solving differential equations in R. *The R Journal* 2, 2 (2010), 5–15.
- [335] SOLER, J. M. A rational indicator of scientific creativity. *Journal of Informetrics* 1, 2 (2007), 123–130.
- [336] SPECTOR, P. *Data Manipulation with R*. Springer-Verlag, 2008.
- [337] STEFANINI, L., AND SORINI, L. Fuzzy arithmetic with parametric LR fuzzy numbers. In *Proc. IFSA/EUSFLAT 2009* (2009), pp. 600–605.
- [338] STROTMANN, A., AND ZHAO, D. Author name disambiguation: What difference does it make in author-based citation analysis? *Journal of the American Society for Information Science and Technology*, 63 (2012), 1820–1933.
- [339] SUGENO, M. *Theory of fuzzy integrals and its applications*. PhD thesis, Tokyo Institute of Technology, 1974.
- [340] SZYDŁOWSKI, M., AND KRAWIEC, A. Scientific cycle model with delay. *Scientometrics* 52, 1 (2001), 83–95.
- [341] SZYDŁOWSKI, M., AND KRAWIEC, A. Growth cycles of knowledge. *Scientometrics* 78, 1 (2009), 99–111.

- [342] SZYMANSKI, B. K., DE LA ROSA, J. L., AND KRISHNAMOORTHY, M. An internet measure of the value of citations. *Information Sciences* 185 (2012), 18–31.
- [343] R DEVELOPMENT CORE TEAM. *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria, 2013. <http://www.R-project.org>.
- [344] TORRA, V. The weighted OWA operator. *International Journal of Intelligent Systems* 12 (1997), 153–166.
- [345] TORRA, V., Ed. *Information fusion in data mining*, vol. 123 of *Studies in Fuzziness and Soft Computing*. Springer-Verlag, 2003.
- [346] TORRA, V., AND NARUKAWA, Y. The h -index and the number of citations: Two fuzzy integrals. *IEEE Transactions on Fuzzy Systems* 16, 3 (2008), 795–797.
- [347] VAN ECK, N. J., AND WALTMAN, L. Generalizing the h - and g -indices. *Journal of Informetrics* 2, 4 (2008), 263–271.
- [348] VAN RAAN, A. Sleeping beauties in science. *Scientometrics* 59, 3 (2004), 467–472.
- [349] VAN RAAN, A. F. J. In matters of quantitative studies of science. The fault of theorists is offering too little and asking too much. *Scientometrics* 43, 1 (1998), 129–139.
- [350] VAN RAAN, A. F. J. Comparison of the Hirsch-index with standard bibliometric indicators and with peer judgment for 147 chemistry research groups. *Scientometrics* 67, 3 (2006), 491–502.
- [351] VANCLAY, J. K. On the robustness of the h -index. *Journal of the American Society for Information Science and Technology* 58, 10 (2007), 1547–1550.
- [352] VANNUCCI, S. Dominance dimension: A common parametric formulation for integer-valued scientific impact indices. *Scientometrics* 84 (2010), 43–48.
- [353] VAZQUEZ, A. Statistics of citation networks. arXiv:cond-mat/0105031v1, 2001.
- [354] VENABLES, W., AND RIPLEY, B. *S Programming*. Springer-Verlag, 2000.
- [355] VENABLES, W., AND RIPLEY, B. *Modern Applied Statistics with S*. Springer-Verlag, 2002.
- [356] VIEIRA, E. S., AND GOMES, J. A. A comparison of *Scopus* and *Web of Science* for a typical university. *Scientometrics* 81, 2 (2009), 587–600.
- [357] VIEIRA, E. S., AND GOMES, J. A. Citations to scientific articles: Its distribution and dependencies on the article features. *Journal of Informetrics* 4 (2010), 1–13.
- [358] VILLASENOR-ALVA, J., AND GONZALEZ-ESTRADA, E. A bootstrap goodness of fit test for the Generalized Pareto Distribution. *Computational Statistics and Data Analysis* 53, 11 (2009), 3835–3841.
- [359] VINKLER, P. Comparative investigation of frequency and strength of motives toward referencing. The reference threshold model. *Scientometrics* 43, 1 (1998), 107–127.
- [360] VINOGRADOV, A. E. Secular trend of academician aging. *Scientometrics* 43, 1 (1998), 149–160.
- [361] WAGNER-DÖBLER, R. Where has the cumulative advantage gone? some observations about the frequency distribution of scientific productivity, of duration of scientific participation, and of speed of publication. *Scientometrics* 32, 2 (1995), 123–132.
- [362] WALTMAN, L., AND VAN ECK, N. J. The inconsistency of the h -index. *Journal of the American Society for Information Science and Technology* 63, 2 (2012), 406–415.
- [363] WICKHAM, H. *ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag, 2009.
- [364] WICKHAM, H. stringr: modern, consistent string processing. *The R Journal* 2, 2 (2010), 38–40.
- [365] WICKHAM, H. testthat: Get started with testing. *The R Journal* 3, 1 (2011), 5–10.
- [366] WIECZORKOWSKI, R., AND ZIELIŃSKI, R. *Komputerowe generatory liczb losowych*. WNT, Warszawa, 1997.
- [367] WILKINSON, L. *The Grammar of Graphics*. Springer-Verlag, 2005.

- [368] WOEGINGER, G. J. An axiomatic analysis of Egghe's g -index. *Journal of Informetrics* 2, 4 (2008), 364–368.
- [369] WOEGINGER, G. J. An axiomatic characterization of the Hirsch-index. *Mathematical Social Sciences* 56, 2 (2008), 224–232.
- [370] WOEGINGER, G. J. A symmetry axiom for scientific impact indices. *Journal of Informetrics* 2 (2008), 298–303.
- [371] WOEGINGER, G. J. Generalizations of Egghe's g -index. *Journal of the American Society for Information Science and Technology* 60, 6 (2009), 1267–1273.
- [372] WOEGINGER, G. J. An algorithmic comparison of three scientific impact indices. *Acta Cybernetica* 19 (2010), 661–672.
- [373] WRÓBLEWSKI, A. K. Bibliometryczne nieporozumienia. *Forum Akademickie* 9 (2001).
- [374] WU, Q. The w -index: A measure to assess scientific impact by focusing on widely cited papers. *Journal of the American Society for Information Science and Technology* 61, 3 (2010), 609–614.
- [375] XIE, Y. *Dynamic Documents with R and knitr*. Chapman & Hall/CRC, 2013.
- [376] YAGER, R. R. On ordered weighted averaging aggregation operators in multicriteria decision making. *IEEE Transactions on Systems, Man, and Cybernetics* 18, 1 (1988), 183–190.
- [377] YAGER, R. R. Prioritized aggregation operators. *International Journal of Approximate Reasoning* 48, 1 (2008), 263–274.
- [378] YAGER, R. R. On generalized Bonferroni mean operators for multi-criteria aggregation. *International Journal of Approximate Reasoning* 50 (2009), 1279–1286.
- [379] YAGER, R. R., AND KACPRZYK, J., Eds. *The ordered weighted averaging operators. Theory and applications*. Kluwer Academic Publishers, Norwell, 1997.
- [380] YAN, J. Enjoy the joy of copulas: With a package *copula*. *Journal of Statistical Software* 21, 4 (2007), 1–21.
- [381] YEH, C.-T. Trapezoidal and triangular approximations preserving the expected interval. *Fuzzy Sets and Systems* 159 (2008), 1345–1353.
- [382] YOUNG, N. S., IOANNIDIS, J. P. A., AND AL-UBAYDLI, O. Why current publication practices may distort science. *PLoS Medicine* 5, 10 (2008), 1418–1422.
- [383] YU, H., DAVIS, M., WILSON, C. S., AND COLE, F. T. H. Object-oriented data modelling for informetric databases. *Journal of Informetrics* 2, 3 (2008), 240–251.
- [384] ZHANG, J. Improving on estimation for the Generalized Pareto Distribution. *Technometrics* 52, 3 (2010), 335–339.
- [385] ZHANG, J., AND STEPHENS, M. A. A new and efficient estimation method for the Generalized Pareto Distribution. *Technometrics* 51, 3 (2009), 316–325.
- [386] ZHIVOTOVSKY, L. A., AND KRUTOWSKY, K. V. Self-citation can inflate h -index. *Scientometrics* 77, 2 (2008), 373–375.
- [387] ZIELIŃSKI, R. *Siedem wykładów wprowadzających do statystyki matematycznej*. PWN, Warszawa, 1990.
- [388] ZIELIŃSKI, R. Przedziały ufności dla frakcji. *Matematyka Stosowana* 10 (2009), 51–68.
- [389] ŻYCZKOWSKI, K. Indeksy cytowań i wiosła. *Forum Akademickie* 9 (2008), 22–25.