

## References

- [1] Bartoszek, M., Beliakov, G., Gagolewski, M., James, S.: Fitting aggregation functions to data: Part I – Linearization and regularization. In: Carvalho, J., et al. (eds.) *Information Processing and Management of Uncertainty in Knowledge-Based Systems, Part II, Communications in Computer and Information Science*, vol. 611, pp. 767–779. Springer (2016)
- [2] Bartoszek, M., Beliakov, G., Gagolewski, M., James, S.: Fitting aggregation functions to data: Part II – Idempotization. In: Carvalho, J., et al. (eds.) *Information Processing and Management of Uncertainty in Knowledge-Based Systems, Part II, Communications in Computer and Information Science*, vol. 611, pp. 780–789. Springer (2016)
- [3] Bartoszek, M., Gagolewski, M.: A fuzzy R code similarity detection algorithm. In: Laurent, A., et al. (eds.) *Information Processing and Management of Uncertainty in Knowledge-Based Systems, Part III, Communications in Computer and Information Science*, vol. 444, pp. 21–30. Springer (2014)
- [4] Bartoszek, M., Gagolewski, M.: Detecting similarity of R functions via a fusion of multiple heuristic methods. In: Alonso, J., Bustince, H., Reformat, M. (eds.) *Proc. IFSA/EUSFLAT’15*, pp. 419–426. Atlantis Press (2015)
- [5] Bartoszek, M., Gagolewski, M.: Binary aggregation functions in software plagiarism detection. In: *Proc. FUZZ-IEEE’17. IEEE* (2017), no. 8015582
- [6] Beliakov, G., Gagolewski, M., James, S.: Penalty-based and other representations of economic inequality. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems* 24(Suppl.1), 1–23 (2016)
- [7] Beliakov, G., Gagolewski, M., James, S.: Least median of squares (LMS) and least trimmed squares (LTS) fitting for the weighted arithmetic mean. In: Medina, J., et al. (eds.) *Information Processing and Management of Uncertainty in Knowledge-Based Systems. Theory and Foundations*, pp. 367–378. Springer (2018)
- [8] Beliakov, G., Gagolewski, M., James, S.: Aggregation on ordinal scales with the Sugeno integral for biomedical applications. *Information Sciences* 501, 377–387 (2019)
- [9] Beliakov, G., Gagolewski, M., James, S.: Robust fitting for the Sugeno integral with respect to general fuzzy measures. *Information Sciences* (2019), in press
- [10] Beliakov, G., Gagolewski, M., James, S., Pace, S., Pastorello, N., Thilliez, E., Vasa, R.: Measuring traffic congestion: An approach based on learning weighted inequality, spread and aggregation indices from comparison data. *Applied Soft Computing* 67, 910–919 (2019), doi:10.1016/j.asoc.2017.07.014
- [11] Cena, A., Gagolewski, M.: OM3: Ordered maxitive, minitive, and modular aggregation operators – Part I: Axiomatic analysis under arity-dependence. In: Bustince, H., et al. (eds.) *Aggregation Functions in Theory and in Practise, Advances in Intelligent Systems and Computing*, vol. 228, pp. 93–103. Springer (2013)
- [12] Cena, A., Gagolewski, M.: OM3: Ordered maxitive, minitive, and modular aggregation operators – Part II: A simulation study. In: Bustince, H., et al. (eds.) *Aggregation Functions in Theory and in Practise, Advances in Intelligent Systems and Computing*, vol. 228, pp. 105–115. Springer (2013)
- [13] Cena, A., Gagolewski, M.: Aggregation and soft clustering of informetric data. In: Baczynski, M., De Baets, B., Mesiar, R. (eds.) *Proc. 8th International Summer School on Aggregation Operators (AGOP 2015)*, pp. 79–84. University of Silesia, Katowice, Poland (2015)
- [14] Cena, A., Gagolewski, M.: Clustering and aggregation of informetric data sets. In: *Computational methods in data analysis (Proc. ITRIA’15 vol. 1)*, pp. 5–26. Institute of Computer Science, Polish Academy of Sciences (2015)
- [15] Cena, A., Gagolewski, M.: A K-means-like algorithm for informetric data clustering. In: Alonso, J., Bustince, H., Reformat, M. (eds.) *Proc. IFSA/EUSFLAT’15*, pp. 536–543. Atlantis Press (2015)
- [16] Cena, A., Gagolewski, M.: OM3: Ordered maxitive, minitive, and modular aggregation operators – Axiomatic and probabilistic properties in an arity-monotonic setting. *Fuzzy Sets and Systems* 264, 138–159 (2015)

- [17] Cena, A., Gagolewski, M.: Fuzzy  $k$ -minpen clustering and  $k$ -nearest-minpen classification procedures incorporating generic distance-based penalty minimizers. In: Carvalho, J., et al. (eds.) Information Processing and Management of Uncertainty in Knowledge-Based Systems, Part II, Communications in Computer and Information Science, vol. 611, pp. 445–456. Springer (2016)
- [18] Cena, A., Gagolewski, M.: OWA-based linkage and the Genie correction for hierarchical clustering. In: Proc. FUZZ-IEEE'17. IEEE (2017), no. 8015652
- [19] Cena, A., Gagolewski, M., Mesiar, R.: Problems and challenges of information resources producers' clustering. Journal of Informetrics 9(2) (2015)
- [20] Coroianu, L., Fullér, R., Gagolewski, M., James, S.: Constrained ordered weighted averaging aggregation with multiple comonotone constraints. Fuzzy Sets and Systems (2019), in press
- [21] Coroianu, L., Gagolewski, M.: Penalty-based data aggregation in real normed vector spaces. In: Halas, R., et al. (eds.) New Trends in Aggregation Theory, Advances in Intelligent Systems and Computing, vol. 981, pp. 160–171. Springer (2019)
- [22] Coroianu, L., Gagolewski, M., Grzegorzewski, P.: Nearest piecewise linear approximation of fuzzy numbers. Fuzzy Sets and Systems 233, 26–51 (2013)
- [23] Coroianu, L., Gagolewski, M., Grzegorzewski, P.: Piecewise linear approximation of fuzzy numbers: Algorithms, arithmetic operations and stability of characteristics. Soft Computing 23(19), 9491–9505 (2019)
- [24] Coroianu, L., Gagolewski, M., Grzegorzewski, P., Adabitar Firozja, M., Houleri, T.: Piecewise linear approximation of fuzzy numbers preserving the support and core. In: Laurent, A., et al. (eds.) Information Processing and Management of Uncertainty in Knowledge-Based Systems, Part II, Communications in Computer and Information Science, vol. 443, pp. 244–254. Springer (2014)
- [25] Ferraro, M.B., Giordani, P., Vantaggi, B., Gagolewski, M., Ángeles Gil, M., Grzegorzewski, P., Hryniewicz, O.: Soft Methods for Data Science, Advances in Intelligent Systems and Computing, vol. 456. Springer (2017)
- [26] Gagolewski, M.: A remark on limit properties of generalized  $h$ - and  $g$ - indices. Journal of Informetrics 3(4), 367–368 (2009)
- [27] 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). Ph.D. thesis, Systems Research Institute, Polish Academy of Sciences (2011), (In Polish)
- [28] Gagolewski, M.: Bibliometric impact assessment with R and the CITAN package. Journal of Informetrics 5(4), 678–692 (2011)
- [29] Gagolewski, M.: On the relation between effort-dominating and symmetric minitive aggregation operators. In: Greco, S., et al. (eds.) Advances in Computational Intelligence, Part III, Communications in Computer and Information Science, vol. 299, pp. 276–285. Springer (2012)
- [30] Gagolewski, M.: On the relationship between symmetric maxitive, minitive, and modular aggregation operators. Information Sciences 221, 170–180 (2013)
- [31] Gagolewski, M.: Scientific impact assessment cannot be fair. Journal of Informetrics 7(4), 792–802 (2013)
- [32] Gagolewski, M.: Statistical hypothesis test for the difference between Hirsch indices of two Pareto-distributed random samples. In: Kruse, R., et al. (eds.) Synergies of Soft Computing and Statistics for Intelligent Data Analysis, Advances in Intelligent Systems and Computing, vol. 190, pp. 359–367. Springer (2013)
- [33] Gagolewski, M.: CITAN: CITation ANalysis toolpack (2014), <http://CRAN.R-project.org/package=CITAN>
- [34] Gagolewski, M.: Programowanie w języku R. Analiza danych, obliczenia, symulacje. Wydawnictwo Naukowe PWN, Warszawa (2014)
- [35] Gagolewski, M.: Data Fusion: Theory, Methods, and Applications. Institute of Computer Science, Polish Academy of Sciences, Warsaw, Poland (2015)
- [36] Gagolewski, M.: Normalized  $WD_p$ WAM and  $WD_p$ OWA spread measures. In: Alonso, J., Bustince, H., Reformat, M. (eds.) Proc. IFSA/EUSFLAT'15, pp. 210–216. Atlantis Press (2015)

- [37] Gagolewski, M.: Some issues in aggregation of multidimensional data. In: Baczynski, M., De Baets, B., Mesiar, R. (eds.) Proc. 8th International Summer School on Aggregation Operators (AGOP 2015), pp. 127–132. University of Silesia, Katowice, Poland (2015)
- [38] Gagolewski, M.: Spread measures and their relation to aggregation functions. *European Journal of Operational Research* 241(2), 469–477 (2015)
- [39] Gagolewski, M.: Sugeno integral-based confidence intervals for the theoretical h-index. In: Grzegorzewski, P., et al. (eds.) *Strengthening Links Between Data Analysis and Soft Computing, Advances in Intelligent Systems and Computing*, vol. 315, pp. 233–240. Springer (2015)
- [40] Gagolewski, M.: *Programowanie w języku R. Analiza danych, obliczenia, symulacje*. Wydawnictwo Naukowe PWN, Warszawa (2016)
- [41] Gagolewski, M.: Penalty-based aggregation of multidimensional data. *Fuzzy Sets and Systems* 325, 4–20 (2017)
- [42] Gagolewski, M.: R package stringi: Character string processing facilities (2019), <http://cran.r-project.org/package=stringi>
- [43] Gagolewski, M., Bartoszek, M., Cena, A.: Genie: A new, fast, and outlier-resistant hierarchical clustering algorithm. *Information Sciences* 363, 8–23 (2016)
- [44] Gagolewski, M., Bartoszek, M., Cena, A.: *Przetwarzanie i analiza danych w języku Python*. Wydawnictwo Naukowe PWN, Warszawa (2016)
- [45] Gagolewski, M., Caha, J.: **FuzzyNumbers**: Tools to deal with fuzzy numbers in R (2019), <http://cran.r-project.org/package=FuzzyNumbers>
- [46] Gagolewski, M., Cena, A.: **agop**: Aggregation operators and preordered sets in R (2019), <http://cran.r-project.org/package=agop>
- [47] Gagolewski, M., Cena, A., Bartoszek, M.: Hierarchical clustering via penalty-based aggregation and the Genie approach. In: Torra, V., et al. (eds.) *Modeling Decisions for Artificial Intelligence, Lecture Notes in Artificial Intelligence*, vol. 9880, pp. 191–202. Springer (2016)
- [48] Gagolewski, M., Dębski, M., Nowakiewicz, M.: Efficient algorithm for computing certain graph-based monotone integrals: The  $l_p$ -indices. In: Mesiar, R., Bacigal, T. (eds.) *Proc. Uncertainty Modeling*, pp. 17–23. STU Bratislava (2013)
- [49] Gagolewski, M., Grzegorzewski, P.: A geometric approach to the construction of scientific impact indices. *Scientometrics* 81(3), 617–634 (2009)
- [50] Gagolewski, M., Grzegorzewski, P.: Possible and necessary  $h$ -indices. In: Carvalho, J.P., et al. (eds.) *Proc. IFSA/EUSFLAT'09*, pp. 1691–1695. IFSA (2009)
- [51] Gagolewski, M., Grzegorzewski, P.: Arity-monotonic extended aggregation operators. In: Hüllermeier, E., et al. (eds.) *Information Processing and Management of Uncertainty in Knowledge-Based Systems, Communications in Computer and Information Science*, vol. 80, pp. 693–702. Springer (2010)
- [52] Gagolewski, M., Grzegorzewski, P.: Metody i problemy naukometrii. In: Rowiński, T., Tadeusiewicz, R. (eds.) *Psychologia i informatyka. Synergia i kontradycje*, pp. 103–125. Wyd. UKSW, Warszawa (2010)
- [53] Gagolewski, M., Grzegorzewski, P.: S-statistics and their basic properties. In: Borgelt, C., et al. (eds.) *Combining Soft Computing and Statistical Methods in Data Analysis, Advances in Intelligent and Soft Computing*, vol. 77, pp. 281–288. Springer (2010)
- [54] Gagolewski, M., Grzegorzewski, P.: Axiomatic characterizations of (quasi-) L-statistics and S-statistics and the Producer Assessment Problem. In: Galichet, S., et al. (eds.) *Proc. EUSFLAT/LFA'11*, pp. 53–58. Atlantis Press (2011)
- [55] Gagolewski, M., 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), 1312–1324 (2011)
- [56] Gagolewski, M., James, S.: Fitting symmetric fuzzy measures for discrete Sugeno integration. In: Kacprzyk, J., et al. (eds.) *Advances in Fuzzy Logic and Technology 2017, Advances in Intelligent Systems and Computing*, vol. 642, pp. 104–116. Springer (2018)

- [57] Gagolewski, M., James, S., Beliakov, G.: Supervised learning to aggregate data with the sugeno integral. *IEEE Transactions on Fuzzy Systems* 27(4), 810–815 (2019)
- [58] Gagolewski, M., Lasek, J.: Learning experts' preferences from informetric data. In: Alonso, J., Bustince, H., Reformat, M. (eds.) *Proc. IFSA/EUSFLAT'15*, pp. 484–491. Atlantis Press (2015)
- [59] Gagolewski, M., Lasek, J.: The use of fuzzy relations in the assessment of information resources producers' performance. In: *Proc. 7th IEEE International Conference Intelligent Systems IS'2014, Vol. 2: Tools, Architectures, Systems, Applications, Advances in Intelligent Systems and Computing*, vol. 323, pp. 289–300. Springer (2015)
- [60] Gagolewski, M., Mesiar, R.: Aggregating different paper quality measures with a generalized  $h$ -index. *Journal of Informetrics* 6(4), 566–579 (2012)
- [61] Gagolewski, M., Mesiar, R.: Monotone measures and universal integrals in a uniform framework for the scientific impact assessment problem. *Information Sciences* 263, 166–174 (2014)
- [62] Gagolewski, M., Pérez-Fernández, R., Baets, B.D.: An inherent difficulty in the aggregation of multidimensional data. *IEEE Transactions on Fuzzy Systems* (2019), in press
- [63] Geras, A., Siudem, G., Gagolewski, M.: Should we introduce a dislike button for academic papers? *Journal of the Association for Information Science and Technology* (2019), in press
- [64] Grzegorzewski, P., Gagolewski, M., Bobecka-Wesołowska, K.: Wnioskowanie statystyczne z wykorzystaniem środowiska R. Biuro ds. Projektu „Program Rozwojowy Politechniki Warszawskiej”, Warszawa (2014)
- [65] Grzegorzewski, P., Gagolewski, M., Hryniewicz, O., Ángeles Gil, M.: Strengthening Links Between Data Analysis and Soft Computing, *Advances in Intelligent Systems and Computing*, vol. 315. Springer (2015)
- [66] Halas, R., Gagolewski, M., Mesiar, R.: *New Trends in Aggregation Theory*, *Advances in Intelligent Systems and Computing*, vol. 981. Springer (2019)
- [67] Lasek, J., Gagolewski, M.: Estimation of tournament metrics for association football league formats. In: *Selected problems in information technologies (Proc. ITRIA'15 vol. 2)*, pp. 67–78. Institute of Computer Science, Polish Academy of Sciences (2015)
- [68] Lasek, J., Gagolewski, M.: The winning solution to the AAIA'15 Data Mining Competition: Tagging firefighter activities at a fire scene. In: Ganzha, M., Maciaszek, L., Paprzycki, M. (eds.) *Proc. FedCSIS'15*, pp. 375–380. IEEE (2015)
- [69] Lasek, J., Gagolewski, M.: The efficacy of league formats in ranking teams. *Statistical Modelling* 18(5–6), 411–435 (2018)
- [70] Lasek, J., Szlavik, Z., Gagolewski, M., Bhulai, S.: How to improve a team's position in the FIFA ranking – A simulation study. *Journal of Applied Statistics* 43(7), 1349–1368 (2016)
- [71] Mesiar, R., Gagolewski, M.: H-index and other Sugeno integrals: Some defects and their compensation. *IEEE Transactions on Fuzzy Systems* 24(6), 1668–1672 (2016)
- [72] Pérez-Fernández, R., Baets, B.D., Gagolewski, M.: A taxonomy of monotonicity properties for the aggregation of multidimensional data. *Information Fusion* 52, 322–334 (2019)
- [73] Rowiński, T., Gagolewski, M.: Preferencje i postawy wobec pomocy online. *Studia Psychologica UKSW* 7, 195–210 (2007)
- [74] Żogała-Siudem, B., Siudem, G., Cena, A., Gagolewski, M.: Agent-based model for the bibliometric  $h$ -index – Exact solution. *European Physical Journal B* 89(21) (2016)