

Test paper for citation parsing

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BIR Workshop

Abstract. This paper is our test for citation parsing. We need some text here to make it look like a real paper. In this study, we evaluate the performance of CERMINE, a PDF parser designed for extracting scholarly information, particularly citations, from academic documents. The evaluation entails a comprehensive analysis of CERMINE's ability to accurately parse citations across diverse datasets encompassing various disciplines and publication formats. Through systematic testing and comparison with ground truth data, we assess CERMINE's efficacy in recognizing citation patterns, handling variations in citation styles, and extracting metadata such as authors, titles, publication years, and journal names. Additionally, we investigate the parser's robustness in handling complex layouts, non-standard document structures, and citations embedded within tables, figures, and footnotes. Our findings shed light on the strengths and limitations of CERMINE, providing insights into its applicability for automated bibliographic management, citation analysis, and digital library development. The results presented herein contribute to the ongoing efforts in enhancing the accuracy and reliability of PDF parsing tools for scholarly communication and information retrieval.

Keywords: Citation parsing · English · Bibliographic References · Bibliometrics

1 Introduction

Bibliometrics, as a field of study, has witnessed significant growth and development over the past few decades, emerging as a vital tool for understanding scholarly communication, scientific progress, and knowledge dissemination NARIN and MOLL, "BIBLIOMETRICS"; Klimo et al., "Bibliometrics"; WHITE and MCCAIN, "BIBLIOMETRICS". Initially conceived as a quantitative approach to analyzing bibliographic data, bibliometrics has evolved into a multidimensional discipline encompassing various quantitative and qualitative analyses NARIN and MOLL, "BIBLIOMETRICS"; WHITE and MCCAIN, "BIBLIOMETRICS"; Klimo et al., "Bibliometrics".

In recent years, bibliometrics has gained prominence in various academic disciplines, including neuroscience Klimo et al., "Bibliometrics", medicine Nietzsche, "Bibliometrics Journey", and information science Kurtz and Bollen, "Usage Bibliometrics". The comprehensive review by Kurtz and Bollen Kurtz and Bollen, "Usage Bibliometrics" in the *Annual Review of Information Science and Technology* highlights the diverse applications of bibliometrics in research evaluation, scholarly communication, and knowledge discovery.

The discourse surrounding bibliometrics has been multifaceted and dynamic, reflecting the evolving landscape of scholarly communication and information science DAVIS, "BIBLIOMETRICS - FOREWORD"; Czolkoss-Hettwer, "Handbook Bibliometrics"; Lozano et al., "Bibliometrics Response". Davis's forward-looking examination of bibliometrics in *Library Trends* sets the stage for understanding its conceptual foundations and practical applications DAVIS, "BIBLIOMETRICS - FOREWORD". Meanwhile, von Ungern-Sternberg's exploration of "Teaching bibliometrics" highlights the pedagogical dimensions of bibliometric literacy and education Ungern-Sternberg, "Teaching bibliometrics". Narin's seminal work on "Patent Bibliometrics" sheds light on the unique challenges and opportunities in analyzing patent data, emphasizing the interdisciplinary nature of bibliometric research NARIN, "PATENT BIBLIOMETRICS". Together, these contributions underscore the diverse facets of bibliometrics and its integral role in scholarly inquiry and knowledge management. Moreover, the growing reliance on bibliometric indicators for research evaluation and funding allocation has raised concerns about the potential misuse and misinterpretation of bibliometric data Ungern-Sternberg, "Teaching bibliometrics"; Cooper, "Bibliometrics basics".

2 Method

In the landscape of bibliometrics, teaching methodologies and introductory resources play pivotal roles in shaping scholarly understanding and application. Schrader's exploration of "Teaching Bibliometrics" in *Library Trends* underscores the pedagogical strategies essential for fostering bibliometric literacy and competency SCHRADER, "TEACHING BIBLIOMETRICS". Potter's concise yet informative "Bibliometrics - Introduction" provides a foundational framework for newcomers to grasp the fundamental concepts and principles of bibliometric analysis POTTER, "BIBLIOMETRICS - INTRODUCTION". Moreover, Schubert's "Handbook Bibliometrics" in *Scientometrics* serves as a comprehensive guide for scholars and practitioners navigating the intricate terrain of bibliometric methodologies and applications Schubert, "Handbook Bibliometrics". Additionally, Benjaminsen et al.'s study on "Beyond Bibliometrics" in *Political Geography* challenges conventional perspectives, urging scholars to explore the broader implications and limitations of bibliometric approaches in understanding scholarly impact and dissemination Benjaminsen et al., "Beyond bibliometrics"; Schryver, "Bibliometrics in Lexicography". These contributions collectively enrich the discourse surrounding bibliometrics, offering insights into its pedagogical, methodological, and conceptual dimensions. Moreover, the critical discourse surrounding bibliometrics has led to the exploration of alternative metrics and methodologies Kokol, Blazun Vosner, and Zavrsnik, "Application of bibliometrics in medicine: a historical bibliometrics analysis"; Thelwall, "Bibliometrics to webometrics".

In the vast landscape of bibliometrics, the evolution and diversification of methodologies and applications have been extensively documented. Lancaster's "Dictionary of Bibliometrics" in the *Journal of the American Society for In-*

formation Science offers a comprehensive compendium of key terms and concepts essential for scholars and practitioners navigating the intricacies of bibliometric research Lancaster, "Dictionary of bibliometrics". Brookes' seminal work, "Developments in Bibliometrics," published in the *Journal of Information Science*, sheds light on the evolving trends and paradigms within the field, highlighting its dynamic nature and interdisciplinary intersections BROOKES, "DEVELOPMENTS IN BIBLIOMETRICS". Grothkopf and Lagerstrom's exploration of "Telescope Bibliometrics 101" in the proceedings of the "Future Professional Communication in Astronomy II" conference underscores the relevance of bibliometrics in specialized domains beyond traditional academic disciplines Grothkopf and Lagerstrom, "Telescope Bibliometrics 101". Moreover, Stephan et al.'s provocative study titled "Blinkered by Bibliometrics" in *Nature* critically examines the limitations and biases inherent in bibliometric indicators, prompting scholars to adopt more nuanced approaches to research evaluation Stephan, Veugelers, and Wang, "Blinkered by bibliometrics". These seminal contributions, along with works such as Simon's "Bibliometrics - Potter, WG" SIMON, "BIBLIOMETRICS - POTTER, WG", Windsor's "Bibliometrics and Drugs" WINDSOR, "BIBLIOMETRICS AND DRUGS", and Cox et al.'s "Competencies for Bibliometrics" Cox et al., "Competencies for bibliometrics"; Silva et al., "Universality in bibliometrics", collectively enrich the discourse surrounding bibliometrics, reflecting its multifaceted nature and enduring significance in scholarly inquiry.

In the realm of bibliometrics, diverse perspectives and applications emerge from various scholarly inquiries. Brookes' examination of "Bibliometrics at Luc Diepenbeek" in the *Journal of Information Science* sheds light on the practical implementations and implications of bibliometric methodologies within specific institutional contexts MUNCHPETERSEN, "BIBLIOMETRICS AND FICTION"; Heinrich, Henderson, and Redmond, "Editorial: AJET bibliometrics"; BROOKES, "BIBLIOMETRICS AT LUC DIEPENBEEK". Similarly, Braun's exploration of "Bibliometrics in Research Evaluation" underscores the role of bibliometric indicators in informing research assessment and decision-making processes, contributing to the broader discourse on scholarly impact BRAUN, "BIBLIOMETRICS IN RESEARCH EVALUATION". Rossi, Strumia, and Torre's presentation on "Bibliometrics for Collaboration Works" at the 17th International Conference on Scientometrics and Informetrics delves into the collaborative dimensions of bibliometric analysis, highlighting its relevance in fostering interdisciplinary research endeavors Rossi, Strumia, and Torre, "Bibliometrics for collaboration works". Moreover, Kurtz's investigation titled "Comparing People with Bibliometrics," presented at the Meeting on Library and Information Services in Astronomy VIII, reflects on the nuanced interplay between bibliometric metrics and individual scholarly contributions, offering insights into research evaluation practices Kurtz, "Comparing People with Bibliometrics". These contributions, alongside works such as Arsenova's "New Application of Bibliometrics" Arsenova, "New application of bibliometrics", Manthorpe's "Bibliometrics in Social Work" Manthorpe, "Bibliometrics in social work", and Prathap's "Bib-

liometrics - Problems and Promises" Prathap, "Bibliometrics - problems and promises"; Gonzalez-Meijome, "Journal of Optometry bibliometrics"; Borgman and Furner, "Scholarly communication and bibliometrics"; Greener, "Evaluating literature with bibliometrics", collectively enrich the understanding and utilization of bibliometric methodologies across diverse academic domains.

3 Results

Bibliometrics, as a field of study, encompasses a myriad of dimensions and applications that have been explored and articulated over the years Rousseau, "Forgotten founder of bibliometrics"; Chang et al., "Technology intelligence with bibliometrics"; HICKS and CROUCH, "CAN BIBLIOMETRICS MEASURE UP"; Guler, Waaijer, and Palmblad, "Scientific Workflows for Bibliometrics". Line's article, "The Importance of Bibliometrics," published in the *Library Journal*, underscores the significance of bibliometric analyses in understanding scholarly communication and impact within the library context KUNZ, "ABOUT METRICS OF BIBLIOMETRICS"; LINE, "THE IMPORTANCE OF BIBLIOMETRICS"; Lewison, "Preparation of bibliometrics papers". Conversely, Broadus delves into the historical trajectory of bibliometrics in his work "Early Approaches to Bibliometrics," offering insights into the evolution of methodologies Heinrich, Henderson, and Redmond, "AJET bibliometrics and licensing" and conceptual frameworks within the field Hunt, "Making sense of bibliometrics"; BROADUS, "EARLY APPROACHES TO BIBLIOMETRICS". These perspectives converge with Cronin's exploration of "Semiotics and Evaluative Bibliometrics" in the *Journal of Documentation*, which delves into the semiotic underpinnings of bibliometric analysis, emphasizing its role in shaping scholarly evaluation practices Russell et al., "International Seminar on Bibliometrics"; Cronin, "Semiotics and evaluative bibliometrics". Through such diverse inquiries, the multifaceted nature of bibliometrics emerges McCain, "Dictionary of bibliometrics - Response", illuminating its complex interplay with scholarly communication, research evaluation, and information retrieval processes PRITCHARD, "STATISTICAL BIBLIOGRAPHY OR BIBLIOMETRICS".

The evolution of bibliometrics is deeply entrenched in scholarly discourse Guler, Waaijer, and Palmblad, "Scientific workflows for bibliometrics", spanning various disciplines and methodologies. Conversely, Campos and Redondo's investigation, "Bibliometrics and Clinical Chemistry," in the *Clinical Chemistry* journal, explores the intersection of bibliometric methodologies with clinical research paradigms, shedding light on their applicability within the realm of medical science CAMPOS and REDONDO, "BIBLIOMETRICS AND CLINICAL-CHEMISTRY". Furthermore, Prathap's recent contribution, "Introduction to Bibliometrics and Scientometrics," in the *Annals of Library and Information Studies*, offers contemporary insights into the evolving landscape of bibliometric practices, highlighting their role in shaping scholarly communication and evaluation in the digital age Prathap, "Introduction to Bibliometrics and Scientometrics". Lastly, Narin, Olivastro, and Stevens' scholarly inquiry, "Bibliometrics

Theory, Practice and Problems," published in the *Evaluation Review*, delves into the theoretical underpinnings and practical applications of bibliometric analyses, addressing inherent challenges and opportunities within the field NARIN, OLIVASTRO, and STEVENS, "BIBLIOMETRICS THEORY, PRACTICE AND PROBLEMS".

Daniel's seminal work, "Bibliometrics and Scholarly Impact," published in the *American Psychologist*, laid foundational insights into the relationship between bibliometrics and scholarly influence, underlining their symbiotic nature in academic evaluation Hicks, "Bibliometrics for Social Validation"; DANIEL, "BIBLIOMETRICS AND SCHOLARLY IMPACT". Zimmer's article, "Bibliometrics: Simple - Understandable - Comprehensible," featured in the *Zeitschrift fur Bibliothekswesen und Bibliographie*, advocates for the accessibility and clarity of bibliometric analyses, emphasizing their utility across diverse scholarly landscapes Zimmer, "Bibliometrics: simple - understandable - comprehensible". McLain's review, "Bibliometrics Toolbox," featured in the *Journal of the American Society for Information Science*, underscores the importance of methodological frameworks in bibliometric analyses, providing practitioners with essential tools for effective research assessment MCLAIN, "BIBLIOMETRICS TOOLBOX - BROOKS,TA"; Bornmann, "Bibliometrics-based decision trees (BBDTs) based on bibliometrics-based heuristics (BBHs): Visualized guidelines for the use of bibliometrics in research evaluation"; Yilmaz, "A Critical View on Bibliometrics". Through these diverse perspectives, the multifaceted nature of bibliometrics emerges, reflecting its dynamic interplay with scholarly inquiry and evaluation processes Friedberg, "A closer look at bibliometrics".

Knowledge transfer in urban settings is a multifaceted process influenced by various factors, including social dynamics, institutional frameworks, and technological advancements Burrell, "Dictionary of bibliometrics - Diodato,V"; Stefanis et al., "Terroir in View of Bibliometrics"; Borgoyakova and Zemskov, "Bibliometrics and hunting the predators"; Kamalski and Kirby, "Bibliometrics and urban knowledge transfer". Understanding the mechanisms driving knowledge exchange is essential for fostering innovation, enhancing urban resilience, and promoting sustainable development PERITZ, "A BRADFORD DISTRIBUTION FOR BIBLIOMETRICS"; Nederhof, Tijssen, and Moed, "Anthony van Raan and bibliometrics". However, assessing the effectiveness and efficiency of knowledge transfer initiatives remains a complex endeavor, requiring robust analytical frameworks and methodologies Keramatfar and Amirkhani, "Bibliometrics of sentiment analysis literature"; Johnson, "Bibliometrics and the brain dead".

Our analysis reveals significant trends and patterns in urban knowledge transfer, highlighting the role of interdisciplinary collaboration and information dissemination channels Keramatfar and Amirkhani, "Bibliometrics of sentiment analysis literature"; Brimblecombe and Grossi, "The bibliometrics of atmospheric environment"; Kamalski and Kirby, "Bibliometrics and urban knowledge transfer". By mapping the evolution of key research themes and identifying influential stakeholders, we elucidate the mechanisms driving urban knowledge exchange processes TODOROV and GLAENZEL, "COMPUTER BIBLIOMETRICS FOR

JOURNAL CLASSIFICATION”. Furthermore, our findings underscore the importance of open access initiatives and collaborative platforms in facilitating knowledge dissemination and promoting innovation in urban contexts Stuart, “Data bibliometrics: metrics before norms”; Beaufils, “Bibliometrics. Why talk about that?”

4 Discussion

The findings presented in this study shed light on the intricate dynamics of knowledge transfer in urban environments. Our analysis underscores the multifaceted nature of urban knowledge exchange Godin, “On the origins of bibliometrics”, which is influenced by a myriad of factors, including technological innovations, institutional frameworks, and socio-economic dynamics Klein and Bloom, “Bibliometrics: The best available information?”; BROADUS, “TOWARD A DEFINITION OF BIBLIOMETRICS”. The utilization of bibliometric analysis has allowed us to unravel underlying patterns and trends McCain, “Dictionary of bibliometrics - Diodato,V”, offering valuable insights for policymakers, urban planners, and researchers.

One key aspect highlighted by our study is the pivotal role of interdisciplinary collaboration in driving urban knowledge transfer Pallis, “A Look at the Bibliometrics”; Romancini, “Bibliometrics in (and beyond) research evaluation”; Meadows, “A practical line in bibliometrics”; PHILLIPS and TURNEY, “BIBLIOMETRICS AND UK SCIENCE POLICY”. The emergence of collaborative networks spanning diverse fields such as urban planning, environmental science, and information technology underscores the importance of cross-disciplinary engagement in addressing complex urban challenges Atkinson, “Editorial 28(2) Bibliometrics revisited”; Smith, “Bibliometrics, dermatology and contact dermatitis”. By fostering synergies between different disciplines, urban stakeholders can harness the collective expertise and resources needed to tackle pressing issues such as sustainable development, resilience planning, and social inclusion Mokhnacheva and Tsvetkova, “Bibliometrics and modern scientific libraries”.

Another noteworthy finding is the evolving landscape of knowledge dissemination channels in urban contexts Moppett, “Individual bibliometrics in UK anaesthesia”. The advent of digital technologies and online platforms has transformed the way information is accessed, shared, and utilized within urban communities AIYEPEKU, “BIBLIOMETRICS IN INFORMATION-SCIENCE CURRICULA”; Bornmann and Moya-Anegón, “Spatial bibliometrics on the city level”. From open-access repositories to social media platforms, the proliferation of digital tools has democratized access to knowledge, empowering citizens to actively participate in decision-making processes and community development initiatives Langheinrich, “Bibliometrics-Measuring *Pervasive Computing’s Impact*”; Klimo et al., “Bibliometrics”.

Furthermore, our analysis underscores the importance of open access initiatives in democratizing knowledge and fostering innovation McEnery-Stonelake and Bernhard, “THE BIBLIOMETRICS OF ITCH: 2017 UPDATE”; PAISLEY,

“BIBLIOMETRICS, SCHOLARLY COMMUNICATION, AND COMMUNICATION-RESEARCH”; Nietzsche, “Bibliometrics Journey”. By removing barriers to information access and promoting transparency in scholarly communication, open access platforms play a crucial role in bridging the gap between academia and practice LANCASTER and ABDULLAH, “SCIENCE AND POLITICS - SOME BIBLIOMETRICS ANALYSIS”. By embracing principles of open science and knowledge sharing, urban stakeholders can leverage the collective wisdom of global communities to address local challenges and advance sustainable urban development agendas WHITE, “BIBLIOMETRICS - FROM CURIOSITY TO CONVENTION”; Dzelalija and Roic, “Bibliometrics on Public Utilities Registration Research”.

Overall, the insights generated from our bibliometric analysis offer valuable implications for urban policymakers, practitioners, and researchers. By understanding the underlying mechanisms driving urban knowledge transfer, stakeholders can design more effective strategies for fostering innovation, enhancing resilience Neufeld and Ins, “Informed peer review and uninformed bibliometrics?”; Traynor and Rafferty, “Bibliometrics and a culture of measurement”, and promoting inclusive urban development. Moving forward, it is imperative to continue monitoring trends in urban knowledge exchange and exploring novel approaches to harness the transformative power of knowledge for the collective benefit of urban communities HARTER, “SCHOLARLY COMMUNICATION AND BIBLIOMETRICS - BORGMAN,CL”.

5 Conclusion

In conclusion, our bibliometric analysis provides valuable insights into the dynamics of knowledge transfer in urban environments. By elucidating the patterns of scholarly communication and collaboration, our study contributes to the growing body of literature on urban knowledge exchange Gumpenberger, Wieland, and Gorraiz, “Bibliometrics and Libraries - a promising Liaison”; Alvarado and RestrepoArango, “Brazilian bibliometrics: diffusion of its literature”. Moving forward, future research endeavors should explore emerging trends in urban knowledge transfer and examine the implications for urban policy, governance, and planning.

References

- NARIN, F and JK MOLL. “BIBLIOMETRICS”. In: *ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY* 12 (1977), pp. 35–58. ISSN: 0066-4200.
- Klimo Jr., Paul et al. “Bibliometrics”. In: *JOURNAL OF NEUROSURGERY* 124.3 (2016), pp. 877–878. ISSN: 0022-3085. DOI: 10.3171/2015.7.JNS151647.
- WHITE, HD and KW MCCAIN. “BIBLIOMETRICS”. In: *ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY* 24 (1989), pp. 119–186. ISSN: 0066-4200.

- Nietzsche, Friedrich. "Bibliometrics Journey". In: *EXERCER-LA REVUE FRANCOPHONE DE MEDECINE GENERALE* 193 (2023), p. 195. ISSN: 0998-3953.
- Kurtz, Michael J. and Johan Bollen. "Usage Bibliometrics". In: *ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY* 44 (2010), pp. 3–64. ISSN: 0066-4200.
- DAVIS, CH. "BIBLIOMETRICS - FOREWORD". In: *LIBRARY TRENDS* 30.1 (1981), p. 3. ISSN: 0024-2594.
- Czolkoss-Hettwer, Michael. "Handbook Bibliometrics". In: *ZEITSCHRIFT FUR BIBLIOTHEKSWESSEN UND BIBLIOGRAPHIE* 69.3 (2022), pp. 171–173. ISSN: 0044-2380.
- Lozano, Christopher S. et al. "Bibliometrics Response". In: *JOURNAL OF NEUROSURGERY* 124.3 (2016), pp. 878–879. ISSN: 0022-3085.
- Ungern-Sternberg, S von. "Teaching bibliometrics". In: *JOURNAL OF EDUCATION FOR LIBRARY AND INFORMATION SCIENCE* 39.1 (1998), pp. 76–80. ISSN: 0748-5786. DOI: 10.2307/40324182.
- NARIN, F. "PATENT BIBLIOMETRICS". In: *SCIENTOMETRICS* 30.1 (1994). 4th International Conference on Bibliometrics, Informetrics and Scientometrics, in Memory of Derek John de Solla Price (1922-1983), BERLIN, GERMANY, SEP 11-15, 1993, pp. 147–155. ISSN: 0138-9130. DOI: 10.1007/BF02017219.
- Cooper, I. Diane. "Bibliometrics basics". In: *JOURNAL OF THE MEDICAL LIBRARY ASSOCIATION* 103.4 (2015), pp. 217–218. ISSN: 1536-5050. DOI: 10.3163/1536-5050.103.4.013.
- SCHRADER, AM. "TEACHING BIBLIOMETRICS". In: *LIBRARY TRENDS* 30.1 (1981), pp. 151–159. ISSN: 0024-2594.
- POTTER, WG. "BIBLIOMETRICS - INTRODUCTION". In: *LIBRARY TRENDS* 30.1 (1981), pp. 5–7. ISSN: 0024-2594.
- Schubert, Andras. "Handbook Bibliometrics". In: *SCIENTOMETRICS* 126.6 (2021), pp. 5379–5385. ISSN: 0138-9130. DOI: 10.1007/s11192-021-03975-2.
- Benjaminsen, Tor A. et al. "Beyond bibliometrics". In: *POLITICAL GEOGRAPHY* 68 (2019), A1–A2. ISSN: 0962-6298. DOI: 10.1016/j.polgeo.2018.12.004.
- Schryver, Gilles-Maurice de. "Bibliometrics in Lexicography". In: *INTERNATIONAL JOURNAL OF LEXICOGRAPHY* 22.4 (2009), pp. 423–465. ISSN: 0950-3846. DOI: 10.1093/ijl/ecp027.
- Kokol, Peter, Helena Blazun Vosner, and Jernej Zavrsnik. "Application of bibliometrics in medicine: a historical bibliometrics analysis". In: *HEALTH INFORMATION AND LIBRARIES JOURNAL* 38.2 (2021), pp. 125–138. ISSN: 1471-1834. DOI: 10.1111/hir.12295.
- Thelwall, Mike. "Bibliometrics to webometrics". In: *JOURNAL OF INFORMATION SCIENCE* 34.4 (2008), pp. 605–621. ISSN: 0165-5515. DOI: 10.1177/0165551507087238.
- Lancaster, FW. "Dictionary of bibliometrics". In: *JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE* 48.5 (1997), p. 480. ISSN:

- 0002-8231. DOI: 10.1002/(SICI)1097-4571(199705)48:5<480::AID-ASI18>3.0.CO;2-2.
- BROOKES, BC. "DEVELOPMENTS IN BIBLIOMETRICS". In: *JOURNAL OF INFORMATION SCIENCE* 10.2 (1985), pp. 91–92. ISSN: 0165-5515. DOI: 10.1177/016555158501000206.
- Grothkopf, Uta and Jill Lagerstrom. "Telescope Bibliometrics 101". In: *FUTURE PROFESSIONAL COMMUNICATION IN ASTRONOMY II*. Ed. by A Accomazzi. Astrophysics and Space Science Proceedings. 2nd Colloquium on Future Professional Communication in Astronomy (FPCA II), Harvard-Smithsonian Ctr Astrophys, Cambridge, MA, APR 13-14, 2010. Smithsonian Astrophys Observatory; Amer Astronom Soc; EDP Sci; Wiley-Blackwell; IOP Publish; Springer; Elsevier. 2011, pp. 109+. ISBN: 978-1-4419-8368-8. DOI: 10.1007/978-1-4419-8369-5_12.
- Stephan, Paula, Reinhilde Veugelers, and Jian Wang. "Blinkered by bibliometrics". In: *NATURE* 544.7651 (2017), pp. 411+. ISSN: 0028-0836. DOI: 10.1038/544411a.
- SIMON, HR. "BIBLIOMETRICS - POTTER, WG". In: *NACHRICHTEN FUR DOKUMENTATION* 33.6 (1982), pp. 257–258. ISSN: 0027-7436.
- WINDSOR, DA. "BIBLIOMETRICS AND DRUGS". In: *JOURNAL OF CHEMICAL INFORMATION AND COMPUTER SCIENCES* 20.4 (1980), p. 255. ISSN: 0095-2338. DOI: 10.1021/ci60024a600.
- Cox, Andrew et al. "Competencies for bibliometrics". In: *JOURNAL OF LIBRARIANSHIP AND INFORMATION SCIENCE* 51.3 (2019), pp. 746–762. ISSN: 0961-0006. DOI: 10.1177/0961000617728111.
- Silva, Roberto da et al. "Universality in bibliometrics". In: *PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS* 391.5 (2012), pp. 2119–2128. ISSN: 0378-4371. DOI: 10.1016/j.physa.2011.11.021.
- MUNCHPETERSEN, E. "BIBLIOMETRICS AND FICTION". In: *LIBRI* 31.1 (1981), pp. 1–21. ISSN: 0024-2667.
- Heinrich, Eva, Michael Henderson, and Petrea Redmond. "Editorial: AJET bibliometrics". In: *AUSTRALASIAN JOURNAL OF EDUCATIONAL TECHNOLOGY* 36.1 (2020), pp. I–IV. ISSN: 1449-3098. DOI: 10.14742/ajet.6146.
- BROOKES, BC. "BIBLIOMETRICS AT LUC DIEPENBEEK". In: *JOURNAL OF INFORMATION SCIENCE* 14.1 (1988), pp. 63–64. ISSN: 0165-5515.
- BRAUN, T. "BIBLIOMETRICS IN RESEARCH EVALUATION". In: *JOURNAL OF INFORMATION SCIENCE* 14.6 (1988), pp. 365–366. ISSN: 0165-5515.
- Rossi, Paolo, Alessandro Strumia, and Riccardo Torre. "Bibliometrics for collaboration works". In: *17TH INTERNATIONAL CONFERENCE ON SCIENTOMETRICS & INFORMETRICS (ISSI2019), VOL I*. Ed. by G Catalano et al. Proceedings of the International Conference on Scientometrics and Informetrics. 17th International Conference of the International-Society-for-Scientometrics-and-Informetrics (ISSI) on Scientometrics and Informetrics, Sapienza Univ Rome, Rome, ITALY, SEP 02-05, 2019. Int Soc Scientometr & Informetr. 2019, pp. 975–983. ISBN: 978-88-3381-118-5.

- Kurtz, Michael J. "Comparing People with Bibliometrics". In: *LIBRARY AND INFORMATION SERVICES IN ASTRONOMY VIII: ASTRONOMY LIBRARIANSHIP IN THE ERA OF BIG DATA AND OPEN SCIENCE*. Ed. by S Lesteven et al. Vol. 186. EPJ Web of Conferences. Meeting on Library and Information Services in Astronomy VIII - Astronomy Librarianship in the Era of Big Data and Open Science, Observatoire Astronomique Strasbourg, Strasbourg, FRANCE, JUN 06-09, 2017. Astron & Astrophys; Centre Donnees Astronomique Strasbourg; Amer Astron Soc; SPIE Digital Lib; Monthly Notices Royal Astron Soc; IOP Sci; ESO; Elsevier; Springer Nature; Strasbourg Univ; City Strasbourg Eurometropole; Reg Grand Est; INSU CNRS. 2018. ISBN: 978-2-7598-9054-5. DOI: 10.1051/epjconf/201818606004.
- Arsenova, Iskra. "New application of bibliometrics". In: *PROCEEDINGS OF THE 2ND INTERNATIONAL CONFERENCE ON INTEGRATED INFORMATION (IC-ININFO 2012)*. Ed. by G Giannakopoulos et al. Vol. 73. Procedia Social and Behavioral Sciences. 2nd International Conference on Integrated Information (IC-ININFO), Budapest, HUNGARY, AUG 30-SEP 03, 2012. 2013, pp. 678–682. DOI: 10.1016/j.sbspro.2013.02.105.
- Manthorpe, Jill. "Bibliometrics in social work". In: *BRITISH JOURNAL OF SOCIAL WORK* 37.5 (2007), pp. 951–953. ISSN: 0045-3102. DOI: 10.1093/bjsw/bcm078.
- Prathap, Gangan. "Bibliometrics - problems and promises". In: *CURRENT SCIENCE* 108.2 (2015), pp. 147–148. ISSN: 0011-3891.
- Gonzalez-Meijome, Jose M. "Journal of Optometry bibliometrics". In: *JOURNAL OF OPTOMETRY* 13.2 (2020), pp. 71–73. ISSN: 1888-4296. DOI: 10.1016/j.optom.2020.03.005.
- Borgman, CL and J Furner. "Scholarly communication and bibliometrics". In: *ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY* 36 (2002), pp. 3–72. ISSN: 0066-4200.
- Greener, Sue. "Evaluating literature with bibliometrics". In: *INTERACTIVE LEARNING ENVIRONMENTS* 30.7 (2022), pp. 1168–1169. ISSN: 1049-4820. DOI: 10.1080/10494820.2022.2118463.
- Rousseau, Ronald. "Forgotten founder of bibliometrics". In: *NATURE* 510.7504 (2014), p. 218. ISSN: 0028-0836. DOI: 10.1038/510218e.
- Chang, H. et al. "Technology intelligence with bibliometrics". In: *IMECS 2007: INTERNATIONAL MULTICONFERENCE OF ENGINEERS AND COMPUTER SCIENTISTS, VOLS I AND II*. Lecture Notes in Engineering and Computer Science. International Multiconference of Engineers and Computer Scientists, Kowloon, PEOPLES R CHINA, MAR 21-23, 2007. 2007, pp. 796+. ISBN: 978-988-98671-4-0.
- HICKS, D and D CROUCH. "CAN BIBLIOMETRICS MEASURE UP". In: *PHYSICS WORLD* 3.9 (1990), pp. 27–28. ISSN: 0953-8585. DOI: 10.1088/2058-7058/3/9/23.
- Guler, Arzu Tugce, Cathelijn J. F. Waaijer, and Magnus Palmblad. "Scientific Workflows for Bibliometrics". In: *PROCEEDINGS OF ISSI 2015 ISTANBUL: 15TH INTERNATIONAL SOCIETY OF SCIENTOMETRICS AND*

- INFORMETRICS CONFERENCE*. Ed. by AA Salah et al. Proceedings of the International Conference on Scientometrics and Informetrics. 15th International Conference of the International-Society-for-Scientometrics-and-Informetrics (ISSI) on Scientometrics and Informetrics, Bogazici Univ, Istanbul, TURKEY, JUN 29-JUL 04, 2015. Int Soc Scientometr & Informetr; Hacettepe Univ; Sci & Technol Res Council Turkey, Turkish Acad Network & Informat Ctr. 2015, pp. 1029–1034. ISBN: 978-975-518-381-7.
- KUNZ, M. “ABOUT METRICS OF BIBLIOMETRICS”. In: *JOURNAL OF CHEMICAL INFORMATION AND COMPUTER SCIENCES* 33.2 (1993), pp. 193–196. ISSN: 0095-2338. DOI: 10.1021/ci00012a002.
- LINE, MB. “THE IMPORTANCE OF BIBLIOMETRICS”. In: *LIBRARY JOURNAL* 112.18 (1987), p. 10. ISSN: 0363-0277.
- Lewison, Grant. “Preparation of bibliometrics papers”. In: *ANAIS DA ACADEMIA BRASILEIRA DE CIENCIAS* 92.3 (2020). ISSN: 0001-3765. DOI: 10.1590/0001-3765202020201327.
- Heinrich, Eva, Michael Henderson, and Petrea Redmond. “AJET bibliometrics and licensing”. In: *AUSTRALASIAN JOURNAL OF EDUCATIONAL TECHNOLOGY* 35.1 (2019), pp. I–IV. ISSN: 1449-3098.
- Hunt, Glenn E. “Making sense of bibliometrics”. In: *ACTA NEUROPSYCHIATRICA* 23.2 (2011), pp. 80–81. ISSN: 0924-2708. DOI: 10.1111/j.1601-5215.2011.00534.x.
- BROADUS, RN. “EARLY APPROACHES TO BIBLIOMETRICS”. In: *JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE* 38.2 (1987), pp. 127–129. ISSN: 0002-8231. DOI: 10.1002/(SICI)1097-4571(198703)38:2<127::AID-ASI6>3.0.CO;2-K.
- Russell, Jane M. et al. “International Seminar on Bibliometrics”. In: *TRANSINFORMACAO* 26.3 (2014), pp. 227–228. ISSN: 0103-3786. DOI: 10.1590/0103-3786201400030001a.
- Cronin, B. “Semiotics and evaluative bibliometrics”. In: *JOURNAL OF DOCUMENTATION* 56.4 (2000), pp. 440–453. ISSN: 0022-0418. DOI: 10.1108/EUM0000000007123.
- McCain, KW. “Dictionary of bibliometrics - Response”. In: *JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE* 48.5 (1997), pp. 480–481. ISSN: 0002-8231.
- PRITCHARD, A. “STATISTICAL BIBLIOGRAPHY OR BIBLIOMETRICS”. In: *JOURNAL OF DOCUMENTATION* 25.4 (1969), pp. 348+. ISSN: 0022-0418.
- Guler, Arzu Tugce, Cathelijn J. F. Waaijer, and Magnus Palmblad. “Scientific workflows for bibliometrics”. In: *SCIENTOMETRICS* 107.2 (2016). 15th International Conference of the International-Society-for-Scientometrics-and-Informetrics (ISSI) on Scientometrics and Informetrics, Bogazici Univ, Istanbul, TURKEY, JUN 29-JUL 04, 2015, pp. 385–398. ISSN: 0138-9130. DOI: 10.1007/s11192-016-1885-6.
- CAMPOS, C and FL REDONDO. “BIBLIOMETRICS AND CLINICAL-CHEMISTRY”. In: *CLINICAL CHEMISTRY* 37.2 (1991), pp. 303–304. ISSN: 0009-9147.

- Prathap, Gangan. "Introduction to Bibliometrics and Scientometrics". In: *ANALS OF LIBRARY AND INFORMATION STUDIES* 69.4 (2022), p. 327. ISSN: 0972-5423. DOI: 10.56042/alis.v69i4.69731.
- NARIN, F, D OLIVASTRO, and KA STEVENS. "BIBLIOMETRICS THEORY, PRACTICE AND PROBLEMS". In: *EVALUATION REVIEW* 18.1 (1994), pp. 65–76. ISSN: 0193-841X. DOI: 10.1177/0193841X9401800107.
- Hicks, Daniel J. "Bibliometrics for Social Validation". In: *PLOS ONE* 11.12 (2016). ISSN: 1932-6203. DOI: 10.1371/journal.pone.0168597.
- DANIEL, RS. "BIBLIOMETRICS AND SCHOLARLY IMPACT". In: *AMERICAN PSYCHOLOGIST* 34.8 (1979), pp. 725–726. ISSN: 0003-066X. DOI: 10.1037/0003-066X.34.8.725.
- Zimmer, David. "Bibliometrics: simple - understandable - comprehensible". In: *ZEITSCHRIFT FUR BIBLIOTHEKSWESEN UND BIBLIOGRAPHIE* 61.6 (2014), pp. 388–389. ISSN: 0044-2380.
- MCLAIN, JP. "BIBLIOMETRICS TOOLBOX - BROOKS,TA". In: *JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE* 41.1 (1990), pp. 70–71. ISSN: 0002-8231. DOI: 10.1002/(SICI)1097-4571(199001)41:1<70::AID-ASI8>3.0.CO;2-J.
- Bornmann, Lutz. "Bibliometrics-based decision trees (BBDTs) based on bibliometrics-based heuristics (BBHs): Visualized guidelines for the use of bibliometrics in research evaluation". In: *QUANTITATIVE SCIENCE STUDIES* 1.1 (2020), pp. 171–182. DOI: 10.1162/qss_a_00012.
- Yilmaz, Murat. "A Critical View on Bibliometrics". In: *TURKISH LIBRARIANSHIP* 33.1 (2019), pp. 43–49. ISSN: 1300-0039. DOI: 10.24146/tkd.2019.47.
- Friedberg, Errol C. "A closer look at bibliometrics". In: *DNA REPAIR* 9.10 (2010), pp. 1018–1020. ISSN: 1568-7864. DOI: 10.1016/j.dnarep.2010.07.010.
- Burrell, Q. "Dictionary of bibliometrics - Diodato,V". In: *JOURNAL OF DOCUMENTATION* 51.4 (1995), pp. 448–450. ISSN: 0022-0418.
- Stefanis, Christos et al. "Terroir in View of Bibliometrics". In: *STATS* 6.4 (2023), pp. 956–979. DOI: 10.3390/stats6040060.
- Borgoyakova, Kristina and Andrey Zemskov. "Bibliometrics and hunting the predators". In: *NAUCHNYE I TEKHNICHESKIE BIBLIOTEKI-SCIENTIFIC AND TECHNICAL LIBRARIES* 2 (2018), pp. 89–100. ISSN: 0130-9765.
- Kamalski, Judith and Andrew Kirby. "Bibliometrics and urban knowledge transfer". In: *CITIES* 29.2, SI (2012), S3–S8. ISSN: 0264-2751. DOI: 10.1016/j.cities.2012.06.012.
- PERITZ, BC. "A BRADFORD DISTRIBUTION FOR BIBLIOMETRICS". In: *SCIENTOMETRICS* 18.5-6 (1990), pp. 323–329. ISSN: 0138-9130. DOI: 10.1007/BF02020148.
- Nederhof, Anton J., Robert J. W. Tijssen, and Henk F. Moed. "Anthony van Raan and bibliometrics". In: *RESEARCH EVALUATION* 19.3, SI (2010), pp. 158–160. ISSN: 0958-2029. DOI: 10.3152/095820210X516560;.

- Keramatfar, Abdalsamad and Hossein Amirkhani. "Bibliometrics of sentiment analysis literature". In: *JOURNAL OF INFORMATION SCIENCE* 45.1 (2019), pp. 3–15. ISSN: 0165-5515. DOI: 10.1177/0165551518761013.
- Johnson, Ian M. "Bibliometrics and the brain dead". In: *INFORMATION DEVELOPMENT* 27.2 (2011), pp. 92–93. ISSN: 0266-6669. DOI: 10.1177/0266666911404012.
- Brimblecombe, Peter and Carlota M. Grossi. "The bibliometrics of atmospheric environment". In: *ATMOSPHERIC ENVIRONMENT* 43.1 (2009), pp. 9–12. ISSN: 1352-2310. DOI: 10.1016/j.atmosenv.2008.09.037.
- TODOROV, R and W GLAENZEL. "COMPUTER BIBLIOMETRICS FOR JOURNAL CLASSIFICATION". In: *INFORMATION PROCESSING & MANAGEMENT* 26.5 (1990). COLLOQUIUM ON EVALUATION AND DOCUMENTARY INFORMATION SYSTEMS, UNIV BORDEAUX III, BORDEAUX, FRANCE, NOV 24-25, 1988, pp. 673–680. ISSN: 0306-4573. DOI: 10.1016/0306-4573(90)90109-F.
- Stuart, David. "Data bibliometrics: metrics before norms". In: *ONLINE INFORMATION REVIEW* 41.3 (2017), pp. 428–435. ISSN: 1468-4527. DOI: 10.1108/OIR-01-2017-0008.
- Beaufils, Philippe. "Bibliometrics. Why talk about that?" In: *ORTHOPAEDICS & TRAUMATOLOGY-SURGERY & RESEARCH* 105.8 (2019), pp. 1423–1424. ISSN: 1877-0568. DOI: 10.1016/j.ost.2019.10.001.
- Godin, Benoit. "On the origins of bibliometrics". In: *SCIENTOMETRICS* 68.1 (2006), pp. 109–133. ISSN: 0138-9130. DOI: 10.1007/s11192-006-0086-0.
- Klein, WC and M Bloom. "Bibliometrics: The best available information?" In: *SOCIAL WORK IN HEALTH CARE* 41.3-4 (2005), pp. 117–121. ISSN: 0098-1389. DOI: 10.1300/J010v41n03_07.
- BROADUS, RN. "TOWARD A DEFINITION OF BIBLIOMETRICS". In: *SCIENTOMETRICS* 12.5-6 (1987), pp. 373–379. ISSN: 0138-9130. DOI: 10.1007/BF02016680.
- McCain, KW. "Dictionary of bibliometrics - Diodato,V". In: *JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE* 47.9 (1996), pp. 716–717. ISSN: 0002-8231. DOI: 10.1002/(SICI)1097-4571(199609)47:9<716::AID-ASI8>3.0.CO;2-V.
- Pallis, George. "A Look at the Bibliometrics". In: *IEEE INTERNET COMPUTING* 23.4 (2019), pp. 5–7. ISSN: 1089-7801. DOI: 10.1109/MIC.2019.2931020.
- Romancini, Richard. "Bibliometrics in (and beyond) research evaluation". In: *EM QUESTAO* 23.3 (2017), pp. 300–305. ISSN: 1807-8893. DOI: 10.19132/1808-5245233.300-305.
- Meadows, J. "A practical line in bibliometrics". In: *INTERLENDING & DOCUMENT SUPPLY* 33.2 (2005), pp. 90–94. ISSN: 0264-1615. DOI: 10.1108/02641050602628.
- PHILLIPS, DC and J TURNEY. "BIBLIOMETRICS AND UK SCIENCE POLICY". In: *SCIENTOMETRICS* 14.3-4 (1988), pp. 185–200. ISSN: 0138-9130. DOI: 10.1007/BF02020074.

- Atkinson, Roger. "Editorial 28(2) Bibliometrics revisited". In: *AUSTRALASIAN JOURNAL OF EDUCATIONAL TECHNOLOGY* 28.2 (2012), pp. III–V. ISSN: 1449-3098.
- Smith, Derek R. "Bibliometrics, dermatology and contact dermatitis". In: *CONTACT DERMATITIS* 59.3 (2008), pp. 133–136. ISSN: 0105-1873. DOI: 10.1111/j.1600-0536.2008.01405.x.
- Mokhnacheva, Yulia and Valentina Tsvetkova. "Bibliometrics and modern scientific libraries". In: *NAUCHNYE I TEKHNICHESKIE BIBLIOTEKI-SCIENTIFIC AND TECHNICAL LIBRARIES* 6 (2018), pp. 51–62. ISSN: 0130-9765.
- Moppett, I. K. "Individual bibliometrics in UK anaesthesia". In: *BRITISH JOURNAL OF ANAESTHESIA* 105.5 (2010). Annual Meeting of the Anaesthetic-Research-Society, Univ Nottingham, Nottingham, ENGLAND, JUL 01-02, 2010, pp. 721–722. ISSN: 0007-0912.
- AIYEPEKU, WO. "BIBLIOMETRICS IN INFORMATION-SCIENCE CURRICULA". In: *INFORMATION SCIENTIST* 9.1 (1975), pp. 29–34.
- Bornmann, Lutz and Felix de Moya-Anegon. "Spatial bibliometrics on the city level". In: *JOURNAL OF INFORMATION SCIENCE* 45.3 (2019), pp. 416–425. ISSN: 0165-5515. DOI: 10.1177/0165551518806119.
- Langheinrich, Marc. "Bibliometrics-Measuring <i>Pervasive</i> <i>Computing's</i> Impact". In: *IEEE PERVASIVE COMPUTING* 17.3 (2018), pp. 6–9. ISSN: 1536-1268. DOI: 10.1109/MPRV.2018.03367729.
- McEnery-Stonelake, Melissa and Jeffrey D. Bernhard. "THE BIBLIOMETRICS OF ITCH: 2017 UPDATE". In: *ACTA DERMATO-VENEREOLÓGICA* 97.8 (2017), p. 1051. ISSN: 0001-5555.
- PAISLEY, W. "BIBLIOMETRICS, SCHOLARLY COMMUNICATION, AND COMMUNICATION-RESEARCH". In: *COMMUNICATION RESEARCH* 16.5 (1989), pp. 701–717. ISSN: 0093-6502. DOI: 10.1177/009365089016005010.
- LANCASTER, FW and SB ABDULLAH. "SCIENCE AND POLITICS - SOME BIBLIOMETRICS ANALYSIS". In: *SCIENCE INDICATORS FOR DEVELOPING COUNTRIES*. Ed. by R Arvanitis and J Gaillard. COLLOQUES ET SEMINAIRES. International Conference on Science Indicators for Developing Countries, UNESCO, PARIS, FRANCE, OCT 15-19, 1990. 1992, pp. 319–331. ISBN: 2-7099-1082-9.
- WHITE, EC. "BIBLIOMETRICS - FROM CURIOSITY TO CONVENTION". In: *SPECIAL LIBRARIES* 76.1 (1985), pp. 35–42. ISSN: 0038-6723.
- Dzelalija, Grgo and Miodrag Roic. "Bibliometrics on Public Utilities Registration Research". In: *LAND* 12.5 (2023). DOI: 10.3390/land12051097.
- Neufeld, Joerg and Markus von Ins. "Informed peer review and uninformed bibliometrics?" In: *RESEARCH EVALUATION* 20.1, SI (2011), pp. 31–46. ISSN: 0958-2029. DOI: 10.3152/095820211X12941371876382.
- Traynor, M and AM Rafferty. "Bibliometrics and a culture of measurement". In: *JOURNAL OF ADVANCED NURSING* 36.2 (2001), pp. 167–168. ISSN: 0309-2402. DOI: 10.1046/j.1365-2648.2001.02017.x.

- HARTER, SP. "SCHOLARLY COMMUNICATION AND BIBLIOMETRICS - BORGMAN,CL". In: *JOURNAL OF DOCUMENTATION* 48.3 (1992), pp. 333–336. ISSN: 0022-0418.
- Gumpenberger, Christian, Martin Wieland, and Juan Gorraiz. "Bibliometrics and Libraries - a promising Liaison". In: *ZEITSCHRIFT FUR BIBLIOTHEKSWESSEN UND BIBLIOGRAPHIE* 61.4-5 (2014), pp. 247–250. ISSN: 0044-2380.
- Alvarado, Ruben Urbizagastegui and Cristina RestrepoArango. "Brazilian bibliometrics: diffusion of its literature". In: *REVISTA IBERO-AMERICANA DE CIENCIA DA INFORMACAO* 13.1 (2020), pp. 200–222. ISSN: 1983-5213. DOI: 10.26512/rici.v13.n1.2020.27922.