

Solon P. Pissis

Doctor of Philosophy

The Cyprus Institute
20 Konstantinou Kavafi Street
2121 Aglantzia, Nicosia
Cyprus

☎ +31 20 592 4263

✉ s.pissis@cyi.ac.cy

🌐 <https://solon-pissis.github.io/>

Education

- 2016 **Postgraduate Certificate in Academic Practice in Higher Education**, KING'S COLLEGE LONDON, *London, UK*.
- 2012 **Ph.D in Computing**, KING'S COLLEGE LONDON, *London, UK*.
External examiners: Prof. Roberto Grossi and Prof. Rajeev Raman
- 2008 **M.Sc in High Performance Computing**, UNIVERSITY OF EDINBURGH, *Edinburgh, UK*.
- 2007 **Four-year Diploma in Informatics and Telecommunications**, NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS, *Athens, Greece*.

Appointments

- Apr 2026 - Present **Associate Professor**, THE CYPRUS INSTITUTE, *Nicosia, Cyprus*.
Computation-based Science and Technology Research Centre
- Mar 2020 - Present **Visiting Associate Professor**, VRIJE UNIVERSITEIT AMSTERDAM, *Amsterdam, Netherlands*.
Department of Computer Science
- Jan 2019 - Mar 2026 **Senior Researcher**, CENTRUM WISKUNDE & INFORMATICA, *Amsterdam, Netherlands*.
Networks & Optimization group
- May 2019 - Apr 2022 **Visiting Research Associate**, KING'S COLLEGE LONDON, *London, UK*.
Department of Informatics
- Sep 2018 - Dec 2018 **Senior Lecturer (Associate Professor) in Computer Science**, KING'S COLLEGE LONDON, *London, UK*.
Department of Informatics
- Sep 2013 - Aug 2018 **Lecturer (Assistant Professor) in Computer Science**, KING'S COLLEGE LONDON, *London, UK*.
Department of Informatics
- Feb 2012 - Jun 2013 **Research Associate**, UNIVERSITY OF FLORIDA, *Gainesville, FL, USA*.
- Feb 2012 - Jun 2013 **Visiting Scientist**, HEIDELBERG INSTITUTE FOR THEORETICAL STUDIES, *Heidelberg, Germany*.
- Nov 2011 - Jan 2012 **Postdoctoral Fellow**, HEIDELBERG INSTITUTE FOR THEORETICAL STUDIES, *Heidelberg, Germany*.

Research Grants and Fellowships

- 2023** Royal Society International Exchanges Scheme with Birkbeck, University of London on *Sub-linear Time Algorithms for Relaxations of the LCS and LPS Problems* – Role: Co-Applicant.
- 2021** Marie Skłodowska-Curie Innovative Training Network (MSCA-ITN-2020) on *ALgorithms for PAngenome Computational Analysis (ALPACA)* – Role: Project supervisor.
- 2020** Marie Skłodowska-Curie Research and Innovation Staff Exchange (MSCA-RISE-2019) on *Pan-genome Graph Algorithms and Data Integration (PAN-GAIA)* – Role: Workpackage leader.
- 2019** Visiting Fellowship, Department of Computer Science, University of Pisa.
- 2018** Royal Society International Exchanges Scheme with the University of Central Florida, USA, on *Efficient Indexes for Uncertain Sequences*.
- 2017** Royal Society International Exchanges Scheme with the University of Pisa, Italy, on *Processing Uncertain Sequences: Combinatorics & Applications*.
- 2017** Research in Pairs Grant (Scheme 4) awarded by the London Mathematical Society.
- 2017** Computer Science Small Grant (Scheme 7) awarded by the London Mathematical Society.
- 2016** Royal Society International Exchanges Scheme with the Mediterranean Agronomic Institute of Chania, Greece, on *Novel Algorithmic Methods for Processing Large-Scale Biological Data*.
- 2016** Computer Science Small Grant (Scheme 7) awarded by the London Mathematical Society.
- 2015** Royal Society International Exchanges Scheme with the University of Newcastle, Australia, on *Algorithms and Software for Finding Super/Megabubbles in Assembly Graphs*.
- 2015** Computer Science Small Grant (Scheme 7) awarded by the London Mathematical Society.
- 2014** Small Grant awarded by the Institute of Mathematics and its Applications.
- 2014** Short Term Scientific Mission Grant awarded by the European Cooperation in Science and Technology.
- 2014** Research Grant awarded by the Royal Society on *High-performance computing tools and libraries for sequencing data*.
- 2014** Financial Support for International Short Visits (Scheme 5) awarded by the London Mathematical Society.
- 2013** Financial Support for Conferences (Scheme 1) awarded by the London Mathematical Society.

Awards

- 2022 SPIRE 2022 Best Paper Award**, sponsored by Springer, for paper “Panagiotis Charalampopoulos, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Tomasz Walen, Wiktor Zuba. Subsequence Covers of Words”.
- 2018 SPIRE 2018 Best Paper Award**, sponsored by Springer, for paper “Mai Alzamel, Panagiotis Charalampopoulos, Costas S. Iliopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Juliusz Straszynski. Efficient Computation of Sequence Mappability”.
- 2017 SPIRE 2017 Best Paper Award**, sponsored by Springer, for paper “Amirhood Amir, Panagiotis Charalampopoulos, Costas S. Iliopoulos, Solon P. Pissis, and Jakub Radoszewski. Longest common factor after one edit operation”.

Keynote Talks

- Combinatorial Algorithms for String Sanitization. *28th London Stringology Days & London Algorithmic Workshop*, King’s College London, London, UK, 2020.

Invited Talks

- Algorithms at Scale: Theory, practice, and applications. *MSc in Data Science Seminar*, University of Nicosia, Nicosia, Cyprus, 2025.
- Text indexing for long patterns: Anchors are all you need. *Departmental Seminar*, University of Milano-Bicocca, Milan, Italy, 2023.
- Pattern Matching on a Special Type of DAGs. *Algorithms Seminar*, University of Utrecht, Utrecht, Netherlands, 2023.
- Pattern Matching on a Special Type of DAGs. *Words and Automata Research Group Seminar*, University of Palermo, Palermo, Italy, 2022.
- Faster Algorithms for Longest Common Substring. *Computer Science Seminar Series*, University of Bar-Ilan, Ramat Gan, Israel, 2021 (Virtual).
- Bidirectional String Anchors: A New String Sampling Mechanism. *Algorithms Group Seminar Series*, University of Warsaw, Warsaw, Poland, 2021 (Virtual).
- On String Sanitization. *Lecture series on the subject “The interplay between fundamental computer science and data science”*, Georg-August-Universität Göttingen, Göttingen, Germany, 2021 (Virtual).
- Pattern Masking for Dictionary Masking. *Computer Science Seminar Series*, University of Bar-Ilan, Ramat Gan, Israel, 2020 (Virtual).
- Reverse-Safe Data Structures for Text Indexing. *Computer Science Seminar Series*, University of Pisa, Pisa, Italy, 2019.
- Even Faster Elastic-Degenerate String Matching via Fast Matrix Multiplication. *Algorithms Group Seminar Series*, University of Warsaw, Warsaw, Poland, 2019.

- When linear space is impractical: computing absent words in output-sensitive space. *Bonsai Bioinformatics Seminar Series*, Université de Lille, Lille, France, 2019.
- Elastic-degenerate strings: a new representation for pattern matching in a collection of similar texts. *Computer Science Seminar Series*, University of Pisa, Pisa, Italy, 2019.
- Elastic-degenerate strings: a new representation for pattern matching in a collection of similar texts. *Life Sciences and Health Seminar Series*, Centrum Wiskunde & Informatica, Amsterdam, Netherlands, 2018.
- Elastic-degenerate strings: a new representation for pattern matching in a collection of similar texts. *Seminari del Dipartimento di Matematica e Informatica*, Dipartimento di Matematica e Informatica, University of Palermo, Italy, 2018.
- Searching in Uncertain Texts. *Computer Science Seminar Series*, Department of Computer Science, Loughborough University, Loughborough, UK, 2017.
- Searching in Uncertain Texts. *Séminaires*, Laboratoire d'informatique de l'Institut Gaspard Monge, Université Paris-Est, Marne-la-Vallée, France, 2017.
- Alignment-Free Sequence Comparison: Using Positive and Negative Information. *Computer Science Seminars*, Department of Computer Science, University of Leicester, Leicester, UK, 2016.
- Sequence Comparison Using Positive and Negative Information. *Workshop on Data Structures in Bioinformatics*, Lab. of Computational Methods for the Analysis of the Diversity and Dynamics of Genomes, Bielefeld University, Bielefeld, Germany, 2016.
- Pattern Matching on Uncertain Strings. *Workshop on Bioinformatics and Stringology*, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh, 2015.
- Accurate and efficient methods for improving multiple circular sequence alignment. *Workshop on Data Structures in Bioinformatics*, Lab. of Computer Science, Robotics and Microelectronics of Montpellier, Montpellier, France, 2014.
- Finding subtree repeats to slash the time for phylogenetic analyses. *Theo Murphy International scientific meeting on Storage and Indexing of massive data*, The Royal Society at Chicheley Hall, home of the Kavli Royal Society International Centre, Buckinghamshire, UK, 2013.
- Single-gap & phylogeny-aware alignment of NGS reads. *ICiS Summer Workshop on Developing a Next-Generation Systems Analysis Library*, The Institute for Computing in Science (ICIS), Argonne National Laboratory, Utah, USA, 2012.
- Aligning next-generation sequencing reads to multiple reference genomes. *AdvOL Optimization Seminars*, McMaster University, Hamilton, Canada, 2011.

- Algorithms for identifying periodic structures. *Digital Ecosystems and Business Intelligence Institute (DEBII) Seminars*, Curtin University, Perth, Australia, 2011.

Editorial Work

- 2025 - present** Editorial Board Member, *Algorithmica*
- 2025 - present** Advisory Board Member, *TheoretCS*
- 2025 - present** Guest Editor, *Algorithms Mol. Biol.*
- 2018** Guest Editor, *Journal of Theoretical Computer Science*
- 2018** Guest Editor, *Fundamenta Informaticae*
- 2015** Guest Editor, *Journal of Discrete Algorithms*
- 2014 - 2018** Assistant Managing Editor, *Journal of Discrete Algorithms*

Steering Committee Memberships

- 2023 - Present** European Symposium on Algorithms (ESA)
- 2023 - Present** SIAM Symposium on Algorithm Engineering and Experiments (ALENEX)

Programme Committee Memberships

- SIAM Symposium on Algorithm Engineering and Experiments (ALENEX 2021, 2024 **Co-Chair**)
- Symposium on Combinatorial Pattern Matching (CPM 2016, 2019 **Co-Chair**, 2020, 2022, 2025, 2027 **Co-Chair**)
- International Symposium on Experimental Algorithms (SEA 2017) — **Co-Chair**
- Symposium on String Processing and Information Retrieval (SPIRE 2015, 2017, 2019, 2020, 2021, 2022, 2025, 2026 — **Co-Chair**)
- Workshop on Algorithms in Bioinformatics (WABI 2018, 2020, 2021, 2022, 2023, 2024 — **Co-Chair**, 2025)
- The Prague Stringology Conference (PSC 2023) — **Co-Chair**, 2025
- European Symposium on Algorithms (ESA 2026 Track S)
- International Symposium on Algorithm and Computation (ISAAC 2022)
- Latin American Theoretical Informatics Symposium (LATIN 2026)
- European Conference on Computational Biology (ECCB 2020, 2022, 2026)
- International Conference on Fun with Algorithms (FUN 2020)
- International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2021)
- International Workshop on Combinatorial Algorithms (IWOCA 2013, 2014, 2015, 2016, 2017, 2018, 2019)
- Computability in Europe (CiE 2022)
- International Conference and Workshop on Algorithms and Computation (WALCOM 2018, 2020)

Organising Committee Memberships

- European Symposium on Algorithms (ALGO 2023) — **Chair**
- ECCB 2020 Workshop on Computational Pangenomics: Algorithms & Applications — **Co-Chair**
- London Stringology Days & London Algorithmic Workshop (LSD & LAW 2009, 2010, 2011, 2014 **Chair**, 2015, 2017, 2018, 2019)
- International Symposium on Experimental Algorithms (SEA 2017) — **Chair**
- String Processing and Information Retrieval (SPIRE 2015) — **Chair**
- Symposium on Combinatorial Pattern Matching (CPM 2019)
- International Workshop on Combinatorial Algorithms (IWOCA 2010)
- Workshop on Mathematical Foundations in Bioinformatics (MatBio 2016, 2017)
- StringMasters (2010)
- King's College London - Hong Kong University Joint Workshop (2010, 2011, 2014)

Ph.D Supervision (Lead Supervisor)

2024 - present Ben Bals

2022 - present Hilde Verbeek

2019 - 2024 Michelle Sweering: Writing up.

2021 - 2024 Esteban Gabory: Successfully defended his Ph.D thesis on 21/5/25 at the Vrije Universiteit Amsterdam. On 1/9/24, Esteban joined the Dipartimento di Matematica e Informatica at the University of Palermo as a Postdoctoral Researcher.

2015 - 2019 Lorraine A.K. Ayad: Successfully defended her Ph.D thesis on 27/2/19 at King's College London. On 2/1/19, Lorraine joined the Department of Informatics at King's College London as a Lecturer in Computer Science.

2015 - 2019 Chang Liu: Successfully defended his Ph.D thesis on 6/2/19 at King's College London. On 2/1/19, Chang joined the Cancer Bioinformatics group at King's College London as a Postdoctoral Cancer Bioinformatician.

2014 - 2018 Ahmad Retha: Successfully defended his Ph.D thesis on 7/11/18 at King's College London. On 12/11/18, Ahmad joined Dotmatics, a scientific informatics company based in the UK, as a software developer for biological visualisation and data analytics.

Teaching

2019 - 2026 Department of Computer Science at Vrije Universiteit

- Algorithms in Sequence Analysis (2019 - 2020, 2020 - 2021, 2021 - 2022, 2022 - 2023, 2023 - 2024, 2024 - 2025, 2025 - 2026)
- Fundamentals of Bioinformatics (2019 - 2020, 2020 - 2021, 2021 - 2022, 2022 - 2023)

- 2013 - 2018** Department of Informatics at King's College London
- Algorithms Design and Analysis (2018 - 2019)
 - Algorithms for Computational Molecular Biology (2013 - 2014, 2014 - 2015, 2015 - 2016, 2016 - 2017, 2017 - 2018)
 - Text Searching and Processing (2013 - 2014, 2016 - 2017, 2017 - 2018, 2018 - 2019)
 - Parallel (and Distributed) Algorithms (2015 - 2016)
 - Software Engineering Group Project (2017 - 2018, 2018 - 2019)
 - Database Systems (2014 - 2015)
- Nov 2018** Department of Informatics, Systems and Communication at University of Milano-Bicocca
- Ph.D level - Efficient and succinct data structures for massive textual data

Project Assessment Committees

- 2025 - 2026** Member of the assessment committee for the ENW Vidi 2025 programme
- 2024 - 2025** Member of the assessment committee for the ENW Vidi 2024 programme

Ph.D External Examiner

- 26 Jul 2023** Bella Zhukova (*New space-time trade-offs for pattern matching with compressed indexes*), University of Helsinki, Finland
- 01 Jun 2023** Giuseppe Romana (*Repetitiveness Measures based on String Attractors and Burrows-Wheeler Transform: Properties and Applications*), University of Palermo, Italy
- 26 Apr 2022** Teresa Anna Steiner (*Algorithms for Strings and Graphs*), Technical University of Denmark, Denmark
- 07 Apr 2021** Daniel Gibney (*Algorithms and lower bounds for ordering problems on strings*), University of Central Florida, USA
- 11 Jan 2019** Corne De Ridder (*Automata-based algorithms for detecting minisatellites and satellites in DNA*), University of Pretoria, South Africa
- 15 Dec 2017** Asma Paracha (*Lyndon Factors and Periodicities in Strings*), McMaster University, Canada

Administrative Duties

- 2013 - 2018** Deputy Chair of the Informatics Undergraduate Programme Board of Examiners, at King's College London

Publications

- [1] Alessio Conte, Roberto Grossi, Grigorios Loukides, Nadia Pisanti, Solon P. Pissis, and Giulia Punzi. Fast assessment of Eulerian trails in graphs with applications. *ACM Trans. Knowl. Discov. Data*, 20(1):14:1–14:33, 2026. doi:10.1145/3771997.
- [2] Solon P. Pissis. Maximal palindromes in MPC: simple and optimal. In Sepehr Assadi and Eva Rotenberg, editors, *2026 Symposium on Simplicity in Algorithms, SOSA 2026, Vancouver, BC, Canada, January 12-14, 2026*, pages 431–437. SIAM, 2026. doi:10.1137/1.9781611978964.35.
- [3] Solon P. Pissis. Text indexing and pattern matching with ephemeral edits. In Sepehr Assadi and Eva Rotenberg, editors, *2026 Symposium on Simplicity in Algorithms, SOSA 2026, Vancouver, BC, Canada, January 12-14, 2026*, pages 476–491. SIAM, 2026. doi:10.1137/1.9781611978964.40.
- [4] Christine Awofeso, Ben Bals, Oded Lachish, and Solon P. Pissis. Testing quasiperiodicity. In Golnaz Badkobeh, Jakub Radoszewski, Nicola Tonello, and Ricardo Baeza-Yates, editors, *String Processing and Information Retrieval - 32nd International Symposium, SPIRE 2025, London, UK, September 8-11, 2025, Proceedings*, volume 16073 of *Lecture Notes in Computer Science*, pages 1–9. Springer, 2025. doi:10.1007/978-3-032-05228-5_1.
- [5] Lorraine A. K. Ayad, Gabriele Fici, Ragnar Groot Koerkamp, Grigorios Loukides, Rob Patro, Giulio Ermanno Pibiri, and Solon P. Pissis. U-index: A universal indexing framework for matching long patterns. In Petra Mutzel and Nicola Prezza, editors, *23rd International Symposium on Experimental Algorithms, SEA 2025, July 22-24, 2025, Venice, Italy*, volume 338 of *LIPICs*, pages 4:1–4:18. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2025. doi:10.4230/LIPICs.SEA.2025.4.
- [6] Lorraine A. K. Ayad, Grigorios Loukides, and Solon P. Pissis. Text indexing for long patterns using locally consistent anchors. *VLDB J.*, 34(5):58, 2025. doi:10.1007/S00778-025-00935-7.
- [7] Ben Bals, Sebastiaan van Krieken, Solon P. Pissis, Leen Stougie, and Hilde Verbeek. When is string reconstruction using de Bruijn graphs hard? In Anne Benoit, Haim Kaplan, Sebastian Wild, and Grzegorz Herman, editors, *33rd Annual European Symposium on Algorithms, ESA 2025, September 15-17, 2025, Warsaw, Poland*, volume 351 of *LIPICs*, pages 53:1–53:16. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2025. doi:10.4230/LIPICs.ESA.2025.53.
- [8] Giulia Bernardini, Huiping Chen, Alessio Conte, Roberto Grossi, Veronica Guerrini, Grigorios Loukides, Nadia Pisanti, and Solon P. Pissis. Indexing strings with utilities. In *41st IEEE International Conference on Data Engineering, ICDE 2025, Hong Kong, May 19-23, 2025*, pages 2782–2795. IEEE, 2025. doi:10.1109/ICDE65448.2025.00209.

- [9] Giulia Bernardini, Huiping Chen, Grigorios Loukides, and Solon P. Pissis. On string and graph sanitization. In Alessio Conte, Andrea Marino, Giovanna Rosone, and Jeffrey Scott Vitter, editors, *From Strings to Graphs, and Back Again: A Festschrift for Roberto Grossi's 60th Birthday, Grossi's Festschrift, July 25, 2025, Venice, Italy*, volume 132 of *OASlcs*, pages 9:1–9:10. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2025. doi:10.4230/OASICS.GROSSI.9.
- [10] Giulia Bernardini, Chang Liu, Grigorios Loukides, Alberto Marchetti-Spaccamela, Solon P. Pissis, Leen Stougie, and Michelle Sweering. Missing value replacement in strings and applications. *Data Min. Knowl. Discov.*, 39(2):12, 2025. doi:10.1007/S10618-024-01074-3.
- [11] Panagiotis Charalampopoulos, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Tomasz Walen, and Wiktor Zuba. Subsequence covers of words. *Theor. Comput. Sci.*, 1041:115216, 2025. doi:10.1016/J.TCS.2025.115216.
- [12] Estéban Gabory, Njagi Moses Mwaniki, Nadia Pisanti, Solon P. Pissis, Jakub Radoszewski, Michelle Sweering, and Wiktor Zuba. Elastic-degenerate string comparison. *Inf. Comput.*, 304:105296, 2025. doi:10.1016/J.IC.2025.105296.
- [13] Pawel Gawrychowski, Adam Górkiewicz, Pola Marciniak, Solon P. Pissis, and Karol Pokorski. Faster approximate elastic-degenerate string matching - part B. In Paola Bonizzoni and Veli Mäkinen, editors, *36th Annual Symposium on Combinatorial Pattern Matching, CPM 2025, June 17-19, 2025, Milan, Italy*, volume 331 of *LIPlcs*, pages 29:1–29:21. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2025. doi:10.4230/LIPICS.CPM.2025.29.
- [14] Ling Li, Hilde Verbeek, Huiping Chen, Grigorios Loukides, Robert Gwadera, Leen Stougie, and Solon P. Pissis. Heavy nodes in a small neighborhood: Exact and peeling algorithms with applications. *IEEE Trans. Knowl. Data Eng.*, 37(4):1853–1870, 2025. doi:10.1109/TKDE.2024.3515875.
- [15] Solon P. Pissis. Optimal prefix-suffix queries with applications. In Ioana Oriana Bercea and Rasmus Pagh, editors, *2025 Symposium on Simplicity in Algorithms, SOSA 2025, New Orleans, LA, USA, January 13-15, 2025*, pages 166–171. SIAM, 2025. doi:10.1137/1.9781611978315.13.
- [16] Solon P. Pissis, Jakub Radoszewski, and Wiktor Zuba. Faster approximate elastic-degenerate string matching - part A. In Paola Bonizzoni and Veli Mäkinen, editors, *36th Annual Symposium on Combinatorial Pattern Matching, CPM 2025, June 17-19, 2025, Milan, Italy*, volume 331 of *LIPlcs*, pages 28:1–28:19. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2025. doi:10.4230/LIPICS.CPM.2025.28.
- [17] Wiktor Zuba, Oded Lachish, and Solon P. Pissis. Minimizers in semi-dynamic strings. In Artur Jez and Jan Otop, editors, *Fundamentals of Computation Theory - 25th International Symposium, FCT 2025, Wrocław*,

Poland, September 15-17, 2025, Proceedings, volume 16106 of *Lecture Notes in Computer Science*, pages 434–447. Springer, 2025. doi:10.1007/978-3-032-04700-7_32.

- [18] Wiktor Zuba, Oded Lachish, and Solon P. Pissis. Shortest undirected paths in de bruijn graphs. In Paola Bonizzoni and Veli Mäkinen, editors, *36th Annual Symposium on Combinatorial Pattern Matching, CPM 2025, June 17-19, 2025, Milan, Italy*, volume 331 of *LIPICs*, pages 12:1–12:13. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2025. doi:10.4230/LIPICS.CPM.2025.12.
- [19] Lorraine A. K. Ayad, Grigorios Loukides, Solon P. Pissis, and Hilde Verbeek. Sparse suffix and LCP array: Simple, direct, small, and fast. In José A. Soto and Andreas Wiese, editors, *LATIN 2024: Theoretical Informatics - 16th Latin American Symposium, Puerto Varas, Chile, March 18-22, 2024, Proceedings, Part I*, volume 14578 of *Lecture Notes in Computer Science*, pages 162–177. Springer, 2024. doi:10.1007/978-3-031-55598-5_11.
- [20] Giulia Bernardini, Huiping Chen, Alessio Conte, Roberto Grossi, Veronica Guerrini, Grigorios Loukides, Nadia Pisanti, and Solon P. Pissis. Utility-oriented string mining. In Shashi Shekhar, Vagelis Papalexakis, Jing Gao, Zhe Jiang, and Matteo Riondato, editors, *Proceedings of the 2024 SIAM International Conference on Data Mining, SDM 2024, Houston, TX, USA, April 18-20, 2024*, pages 190–198. SIAM, 2024. doi:10.1137/1.9781611978032.22.
- [21] Giulia Bernardini, Huiping Chen, Inge Li Gørtz, Christoffer Krogh, Grigorios Loukides, Solon P. Pissis, Leen Stougie, and Michelle Sweering. Connecting de Bruijn Graphs. In Shunsuke Inenaga and Simon J. Puglisi, editors, *35th Annual Symposium on Combinatorial Pattern Matching (CPM 2024)*, volume 296 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 6:1–6:16. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2024. ISBN 978-3-95977-326-3. ISSN 1868-8969. doi:10.4230/LIPICS.CPM.2024.6.
- [22] Giulia Bernardini, Estéban Gabory, Solon P. Pissis, Leen Stougie, Michelle Sweering, and Wiktor Zuba. Elastic-degenerate string matching with 1 error or mismatch. *Theory Comput. Syst.*, 68(5):1442–1467, 2024. doi:10.1007/S00224-024-10194-8.
- [23] Philip Bille, Inge Li Gørtz, Moshe Lewenstein, Solon P. Pissis, Eva Rotenberg, and Teresa Anna Steiner. Gapped String Indexing in Subquadratic Space and Sublinear Query Time. In Olaf Beyersdorff, Mamadou Moustapha Kanté, Orna Kupferman, and Daniel Lokshtanov, editors, *41st International Symposium on Theoretical Aspects of Computer Science (STACS 2024)*, volume 289 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 16:1–16:21. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2024. ISBN 978-3-95977-311-9. ISSN 1868-8969. doi:10.4230/LIPICS.STACS.2024.16.
- [24] Philip Bille, Yakov Nekrich, and Solon P. Pissis. Size-Constrained Weighted Ancestors with Applications. In Hans L. Bodlaender, editor, *19th Scandinavian*

- Symposium and Workshops on Algorithm Theory (SWAT 2024)*, volume 294 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 14:1–14:12. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2024. ISBN 978-3-95977-318-8. ISSN 1868-8969. doi:10.4230/LIPIcs.SWAT.2024.14.
- [25] Panagiotis Charalampopoulos, Huiping Chen, Peter Christen, Grigorios Loukides, Nadia Pisanti, Solon P. Pissis, and Jakub Radoszewski. Pattern masking for dictionary matching: Theory and practice. *Algorithmica*, 86(6):1948–1978, 2024. doi:10.1007/S00453-024-01213-8.
- [26] Panagiotis Charalampopoulos, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Tomasz Waleń, and Wiktor Zuba. Approximate Circular Pattern Matching Under Edit Distance. In Olaf Beyersdorff, Mamadou Moustapha Kanté, Orna Kupferman, and Daniel Lokshtanov, editors, *41st International Symposium on Theoretical Aspects of Computer Science (STACS 2024)*, volume 289 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 24:1–24:22. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2024. ISBN 978-3-95977-311-9. ISSN 1868-8969. doi:10.4230/LIPIcs.STACS.2024.24.
- [27] Huiping Chen, Alessio Conte, Roberto Grossi, Grigorios Loukides, Solon P. Pissis, and Michelle Sweering. On breaking truss-based and core-based communities. *ACM Trans. Knowl. Discov. Data*, 18(6):135:1–135:43, 2024. doi:10.1145/3644077.
- [28] Estéban Gabory, Chang Liu, Grigorios Loukides, Solon P. Pissis, and Wiktor Zuba. Space-efficient indexes for uncertain strings. In *40th IEEE International Conference on Data Engineering, ICDE 2024, Utrecht, The Netherlands, May 13-16, 2024*, pages 4828–4842. IEEE, 2024. doi:10.1109/ICDE60146.2024.00367.
- [29] Ling Li, Wiktor Zuba, Grigorios Loukides, Solon P. Pissis, and Maria Matsangidou. Scalable order-preserving pattern mining. In Elena Baralis, Kun Zhang, Ernesto Damiani, Mérouane Debbah, Panos Kalnis, and Xindong Wu, editors, *IEEE International Conference on Data Mining, ICDM 2024, Abu Dhabi, United Arab Emirates, December 9-12, 2024*, pages 211–220. IEEE, 2024. doi:10.1109/ICDM59182.2024.00028.
- [30] Hilde Verbeek, Lorraine A.K. Ayad, Grigorios Loukides, and Solon P. Pissis. Minimizing the Minimizers via Alphabet Reordering. In Shunsuke Inenaga and Simon J. Puglisi, editors, *35th Annual Symposium on Combinatorial Pattern Matching (CPM 2024)*, volume 296 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 28:1–28:13. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2024. ISBN 978-3-95977-326-3. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2024.28.
- [31] Haodi Zhong, Grigorios Loukides, Alessio Conte, and Solon P. Pissis. Ego-network segmentation via (weighted) Jaccard median. *IEEE Trans. Knowl. Data Eng.*, 36(9):4646–4663, 2024. doi:10.1109/TKDE.2024.3373712.

- [32] Wiktor Zuba, Grigorios Loukides, Solon P. Pissis, and Sharma V. Thankachan. Approximate suffix-prefix dictionary queries. In Rastislav Královic and Antonín Kucera, editors, *49th International Symposium on Mathematical Foundations of Computer Science, MFCS 2024, August 26-30, 2024, Bratislava, Slovakia*, volume 306 of *LIPICs*, pages 85:1–85:18. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2024. doi:10.4230/LIPICs.MFCS.2024.85.
- [33] Mai Alzamel, Christopher Hampson, Costas S. Iliopoulos, Zara Lim, Solon P. Pissis, Dimitrios Vlachakis, and Steven Watts. Maximal degenerate palindromes with gaps and mismatches. *Theor. Comput. Sci.*, 978:114182, 2023. doi:10.1016/j.tcs.2023.114182.
- [34] Lorraine A. K. Ayad, Rayan Chikhi, and Solon P. Pissis. Seedability: Optimising alignment parameters for sensitive sequence comparison. *Bioinformatics Advances*, page vbad108, 08 2023. ISSN 2635-0041. doi:10.1093/bioadv/vbad108.
- [35] Lorraine A. K. Ayad, Grigorios Loukides, and Solon P. Pissis. Text indexing for long patterns: Anchors are all you need. *Proc. VLDB Endow.*, 16(9):2117–2131, 2023.
- [36] Giulia Bernardini, Alessio Conte, Garance Gourdel, Roberto Grossi, Grigorios Loukides, Nadia Pisanti, Solon P. Pissis, Giulia Punzi, Leen Stougie, and Michelle Sweering. Hide and mine in strings: Hardness, algorithms, and experiments. *IEEE Trans. Knowl. Data Eng.*, 35(6):5948–5963, 2023. doi:10.1109/TKDE.2022.3158063.
- [37] Giulia Bernardini, Gabriele Fici, Paweł Gawrychowski, and Solon P. Pissis. Substring Complexity in Sublinear Space. In Satoru Iwata and Naonori Kakimura, editors, *34th International Symposium on Algorithms and Computation (ISAAC 2023)*, volume 283 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 12:1–12:19. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2023. ISBN 978-3-95977-289-1. ISSN 1868-8969. doi:10.4230/LIPICs.ISAAC.2023.12.
- [38] Victoria R. Carr, Solon P. Pissis, Peter Mullany, Saeed Shoaie, David Gomez-Cabrero, and David L. Moyes. Palidis: fast discovery of novel insertion sequences. *Microbial Genomics*, 9(3), 2023. doi:10.1099/mgen.0.000917.
- [39] Huiping Chen, Grigorios Loukides, Robert Gwadera, and Solon P. Pissis. Heavy nodes in a small neighborhood: Algorithms and applications. In *Proceedings of the 2023 SIAM International Conference on Data Mining (SDM)*, pages 307–315. 2023. doi:10.1137/1.9781611977653.ch35.
- [40] Estéban Gabory, Njagi Moses Mwaniki, Nadia Pisanti, Solon P. Pissis, Jakub Radoszewski, Michelle Sweering, and Wiktor Zuba. Comparing elastic-degenerate strings: Algorithms, lower bounds, and applications. In Laurent Bulteau and Zsuzsanna Lipták, editors, *34th Annual Symposium on Combinatorial Pattern Matching, CPM 2023, June 26-28, 2023, Marne-la-Vallée*,

France, volume 259 of *LIPICs*, pages 11:1–11:20. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2023. doi:10.4230/LIPICs.CPM.2023.11.

- [41] Grigorios Loukides, Solon P. Pissis, and Michelle Sweering. Bidirectional string anchors for improved text indexing and top- k similarity search. *IEEE Trans. Knowl. Data Eng.*, 35(11):11093–11111, 2023. doi:10.1109/TKDE.2022.3231780.
- [42] Grigorios Loukides, Solon P. Pissis, Sharma V. Thankachan, and Wiktor Zuba. Suffix-prefix queries on a dictionary. In Laurent Bulteau and Zsuzsanna Lipták, editors, *34th Annual Symposium on Combinatorial Pattern Matching, CPM 2023, June 26-28, 2023, Marne-la-Vallée, France*, volume 259 of *LIPICs*, pages 21:1–21:20. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2023. doi:10.4230/LIPICs.CPM.2023.21.
- [43] Solon P. Pissis, Michael Shekelyan, Chang Liu, and Grigorios Loukides. Frequency-constrained substring complexity. In Franco Maria Nardini, Nadia Pisanti, and Rossano Venturini, editors, *String Processing and Information Retrieval - 30th International Symposium, SPIRE 2023, Pisa, Italy, September 26-28, 2023, Proceedings*, volume 14240 of *Lecture Notes in Computer Science*, pages 345–352. Springer, 2023. doi:10.1007/978-3-031-43980-3_28.
- [44] Golnaz Badkobeh, Panagiotis Charalampopoulos, Dmitry Kosolobov, and Solon P. Pissis. Internal shortest absent word queries in constant time and linear space. *Theor. Comput. Sci.*, 922:271–282, 2022. doi:10.1016/j.tcs.2022.04.029.
- [45] Giulia Bernardini, Huiping Chen, Grigorios Loukides, Solon P. Pissis, Leen Stougie, and Michelle Sweering. Making de Bruijn graphs Eulerian. In Hideo Bannai and Jan Holub, editors, *33rd Annual Symposium on Combinatorial Pattern Matching, CPM 2022, June 27-29, 2022, Prague, Czech Republic*, volume 223 of *LIPICs*, pages 12:1–12:18. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022. doi:10.4230/LIPICs.CPM.2022.12.
- [46] Giulia Bernardini, Alessio Conte, Esteban Gabory, Roberto Grossi, Grigorios Loukides, Solon P. Pissis, Giulia Punzi, and Michelle Sweering. On strings having the same length- k substrings. In Hideo Bannai and Jan Holub, editors, *33rd Annual Symposium on Combinatorial Pattern Matching, CPM 2022, June 27-29, 2022, Prague, Czech Republic*, volume 223 of *LIPICs*, pages 16:1–16:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022. doi:10.4230/LIPICs.CPM.2022.16.
- [47] Giulia Bernardini, Estéban Gabory, Solon P. Pissis, Leen Stougie, Michelle Sweering, and Wiktor Zuba. Elastic-degenerate string matching with 1 error. In Armando Castañeda and Francisco Rodríguez-Henríquez, editors, *LATIN 2022: Theoretical Informatics - 15th Latin American Symposium, Guanajuato, Mexico, November 7-11, 2022, Proceedings*, volume 13568 of

- Lecture Notes in Computer Science*, pages 20–37. Springer, 2022. doi:10.1007/978-3-031-20624-5_2.
- [48] Giulia Bernardini, Pawel Gawrychowski, Nadia Pisanti, Solon P. Pissis, and Giovanna Rosone. Elastic-degenerate string matching via fast matrix multiplication. *SIAM J. Comput.*, 51(3):549–576, 2022. doi:10.1137/20m1368033.
- [49] Panagiotis Charalampopoulos, Costas S. Iliopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, and Juliusz Straszynski. Efficient computation of sequence mappability. *Algorithmica*, 84(5):1418–1440, 2022. doi:10.1007/s00453-022-00934-y.
- [50] Panagiotis Charalampopoulos, Tomasz Kociumaka, Jakub Radoszewski, Solon P. Pissis, Wojciech Rytter, Tomasz Walen, and Wiktor Zuba. Approximate circular pattern matching. In Shiri Chechik, Gonzalo Navarro, Eva Rotenberg, and Grzegorz Herman, editors, *30th Annual European Symposium on Algorithms, ESA 2022, September 5-9, 2022, Berlin/Potsdam, Germany*, volume 244 of *LIPICs*, pages 35:1–35:19. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022. doi:10.4230/LIPICs.ESA.2022.35.
- [51] Panagiotis Charalampopoulos, Solon P. Pissis, and Jakub Radoszewski. Longest palindromic substring in sublinear time. In Hideo Bannai and Jan Holub, editors, *33rd Annual Symposium on Combinatorial Pattern Matching, CPM 2022, June 27-29, 2022, Prague, Czech Republic*, volume 223 of *LIPICs*, pages 20:1–20:9. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022. doi:10.4230/LIPICs.CPM.2022.20.
- [52] Panagiotis Charalampopoulos, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Tomasz Walen, and Wiktor Zuba. Subsequence covers of words. In Diego Arroyuelo and Barbara Poblete, editors, *String Processing and Information Retrieval - 29th International Symposium, SPIRE 2022, Concepción, Chile, November 8-10, 2022, Proceedings*, volume 13617 of *Lecture Notes in Computer Science*, pages 3–15. Springer, 2022. doi:10.1007/978-3-031-20643-6_1.
- [53] Grigorios Loukides and Solon P. Pissis. All-pairs suffix/prefix in optimal time using aho-corasick space. *Inf. Process. Lett.*, 178:106275, 2022. doi:10.1016/j.ipl.2022.106275.
- [54] Marco Virgolin and Solon P. Pissis. Symbolic regression is NP-hard. *Trans. Mach. Learn. Res.*, 2022, 2022.
- [55] Haodi Zhong, Grigorios Loukides, Alessio Conte, and Solon P. Pissis. Jaccard median for ego-network segmentation. In Xingquan Zhu, Sanjay Ranka, My T. Thai, Takashi Washio, and Xindong Wu, editors, *IEEE International Conference on Data Mining, ICDM 2022, Orlando, FL, USA, November 28 - Dec. 1, 2022*, pages 1353–1358. IEEE, 2022. doi:10.1109/ICDM54844.2022.00180.

- [56] Haodi Zhong, Grigorios Loukides, and Solon P. Pissis. Clustering demographics and sequences of diagnosis codes. *IEEE J. Biomed. Health Informatics*, 26(5):2351–2359, 2022. doi:10.1109/JBHI.2021.3129461.
- [57] Haodi Zhong, Grigorios Loukides, and Solon P. Pissis. Clustering sequence graphs. *Data Knowl. Eng.*, 138:101981, 2022. doi:10.1016/j.datak.2022.101981.
- [58] Hayam Alamro, Mai Alzamel, Costas S. Iliopoulos, Solon P. Pissis, and Steven Watts. IUPACpal: efficient identification of inverted repeats in IUPAC-encoded DNA sequences. *BMC Bioinform.*, 22(1):51, 2021. doi:10.1186/s12859-021-03983-2.
- [59] Lorraine A. K. Ayad, Golnaz Badkobeh, Gabriele Fici, Alice Héliou, and Solon P. Pissis. Constructing antidictionaries of long texts in output-sensitive space. *Theory Comput. Syst.*, 65(5):777–797, 2021. doi:10.1007/s00224-020-10018-5.
- [60] Golnaz Badkobeh, Panagiotis Charalampopoulos, and Solon P. Pissis. Internal Shortest Absent Word Queries. In Paweł Gawrychowski and Tatiana Starikovskaya, editors, *32nd Annual Symposium on Combinatorial Pattern Matching (CPM 2021)*, volume 191 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 6:1–6:18. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2021. ISBN 978-3-95977-186-3. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2021.6.
- [61] Giulia Bernardini, Huiping Chen, Alessio Conte, Roberto Grossi, Grigorios Loukides, Nadia Pisanti, Solon P. Pissis, Giovanna Rosone, and Michelle Sweering. Combinatorial algorithms for string sanitization. *ACM Trans. Knowl. Discov. Data*, 15(1):8:1–8:34, 2021. doi:10.1145/3418683.
- [62] Giulia Bernardini, Huiping Chen, Gabriele Fici, Grigorios Loukides, and Solon P. Pissis. Reverse-safe text indexing. *ACM J. Exp. Algorithmics*, 26:1.10:1–1.10:26, 2021. doi:10.1145/3461698.
- [63] Giulia Bernardini, Alberto Marchetti-Spaccamela, Solon P. Pissis, Leen Stougie, and Michelle Sweering. Constructing Strings Avoiding Forbidden Substrings. In Paweł Gawrychowski and Tatiana Starikovskaya, editors, *32nd Annual Symposium on Combinatorial Pattern Matching (CPM 2021)*, volume 191 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 9:1–9:18. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2021. ISBN 978-3-95977-186-3. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2021.9.
- [64] Panagiotis Charalampopoulos, Huiping Chen, Peter Christen, Grigorios Loukides, Nadia Pisanti, Solon P. Pissis, and Jakub Radoszewski. Pattern masking for dictionary matching. In Hee-Kap Ahn and Kunihiko Sadakane, editors, *32nd International Symposium on Algorithms and Computation, ISAAC 2021, December 6-8, 2021, Fukuoka, Japan*, volume 212 of *LIPIcs*,

pages 65:1–65:19. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2021. doi:10.4230/LIPIcs.ISAAC.2021.65.

- [65] Panagiotis Charalampopoulos, Tomasz Kociumaka, Solon P. Pissis, and Jakub Radoszewski. Faster Algorithms for Longest Common Substring. In Petra Mutzel, Rasmus Pagh, and Grzegorz Herman, editors, *29th Annual European Symposium on Algorithms (ESA 2021)*, volume 204 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 30:1–30:17. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2021. ISBN 978-3-95977-204-4. ISSN 1868-8969. doi:10.4230/LIPIcs.ESA.2021.30.
- [66] Panagiotis Charalampopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Juliusz Straszynski, Tomasz Walen, and Wiktor Zuba. Circular pattern matching with k mismatches. *J. Comput. Syst. Sci.*, 115:73–85, 2021. doi:10.1016/j.jcss.2020.07.003.
- [67] Huiping Chen, Alessio Conte, Roberto Grossi, Grigorios Loukides, Solon P. Pissis, and Michelle Sweering. On breaking truss-based communities. In Feida Zhu, Beng Chin Ooi, and Chunyan Miao, editors, *KDD '21: The 27th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Virtual Event, Singapore, August 14-18, 2021*, pages 117–126. ACM, 2021. doi:10.1145/3447548.3467365.
- [68] Huiping Chen, Changyu Dong, Liyue Fan, Grigorios Loukides, Solon P. Pissis, and Leen Stougie. Differentially private string sanitization for frequency-based mining tasks. In James Bailey, Pauli Miettinen, Yun Sing Koh, Dacheng Tao, and Xindong Wu, editors, *IEEE International Conference on Data Mining, ICDM 2021, Auckland, New Zealand, December 7-10, 2021*, pages 41–50. IEEE, 2021. doi:10.1109/ICDM51629.2021.00014.
- [69] Huiping Chen, Grigorios Loukides, Solon P. Pissis, and Hau Chan. Influence maximization in the presence of vulnerable nodes: A ratio perspective. *Theor. Comput. Sci.*, 852:84–103, 2021. doi:10.1016/j.tcs.2020.11.020.
- [70] Alessio Conte, Roberto Grossi, Grigorios Loukides, Nadia Pisanti, Solon P. Pissis, and Giulia Punzi. Beyond the BEST theorem: Fast assessment of eulerian trails. In Evripidis Bampis and Aris Pagourtzis, editors, *Fundamentals of Computation Theory - 23rd International Symposium, FCT 2021, Athens, Greece, September 12-15, 2021, Proceedings*, volume 12867 of *Lecture Notes in Computer Science*, pages 162–175. Springer, 2021. doi:10.1007/978-3-030-86593-1_11.
- [71] Costas S. Iliopoulos, Ritu Kundu, and Solon P. Pissis. Efficient pattern matching in elastic-degenerate strings. *Inf. Comput.*, 279:104616, 2021. doi:10.1016/j.ic.2020.104616.
- [72] Grigorios Loukides and Solon P. Pissis. Bidirectional String Anchors: A New String Sampling Mechanism. In Petra Mutzel, Rasmus Pagh, and Grzegorz Herman, editors, *29th Annual European Symposium on Algorithms*

(ESA 2021), volume 204 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 64:1–64:21. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2021. ISBN 978-3-95977-204-4. ISSN 1868-8969. doi:10.4230/LIPIcs.ESA.2021.64.

- [73] Takuya Mieno, Solon P. Pissis, Leen Stougie, and Michelle Sweering. String Sanitization Under Edit Distance: Improved and Generalized. In Paweł Gawrychowski and Tatiana Starikovskaya, editors, *32nd Annual Symposium on Combinatorial Pattern Matching (CPM 2021)*, volume 191 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 19:1–19:18. Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2021. ISBN 978-3-95977-186-3. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2021.19.
- [74] Paniz Abedin, Arnab Ganguly, Solon P. Pissis, and Sharma V. Thankachan. Efficient data structures for range shortest unique substring queries. *Algorithms*, 13(11):276, 2020. doi:10.3390/a13110276.
- [75] Hayam Alamro, Mai Alzamel, Costas S. Iliopoulos, Solon P. Pissis, Wing-Kin Sung, and Steven Watts. Efficient identification of k-closed strings. *Int. J. Found. Comput. Sci.*, 31(5):595–610, 2020. doi:10.1142/s0129054120500288.
- [76] Mai Alzamel, Lorraine A. K. Ayad, Giulia Bernardini, Roberto Grossi, Costas S. Iliopoulos, Nadia Pisanti, Solon P. Pissis, and Giovanna Rosone. Comparing degenerate strings. *Fundam. Informaticae*, 175(1-4):41–58, 2020. doi:10.3233/FI-2020-1947.
- [77] Mai Alzamel, Panagiotis Charalampopoulos, Costas S. Iliopoulos, Solon P. Pissis, Jakub Radoszewski, and Wing-Kin Sung. Faster algorithms for 1-mappability of a sequence. *Theor. Comput. Sci.*, 812:2–12, 2020. doi:10.1016/j.tcs.2019.04.026.
- [78] Amihood Amir, Panagiotis Charalampopoulos, Solon P. Pissis, and Jakub Radoszewski. Dynamic and internal longest common substring. *Algorithmica*, 82(12):3707–3743, 2020. doi:10.1007/s00453-020-00744-0.
- [79] Lorraine A. K. Ayad, Giulia Bernardini, Roberto Grossi, Costas S. Iliopoulos, Nadia Pisanti, Solon P. Pissis, and Giovanna Rosone. Longest property-preserved common factor: A new string-processing framework. *Theor. Comput. Sci.*, 812:244–251, 2020. doi:10.1016/j.tcs.2020.02.012.
- [80] Lorraine A. K. Ayad, Panagiotis Charalampopoulos, and Solon P. Pissis. SMART: supermaximal approximate repeats tool. *Bioinform.*, 36(8):2589–2591, 2020. doi:10.1093/bioinformatics/btz953.
- [81] Lorraine A. K. Ayad, Panagiotis Charalampopoulos, and Solon P. Pissis. SMART: supermaximal approximate repeats tool. In *BCB '20: 11th ACM International Conference on Bioinformatics, Computational Biology and Health Informatics, Virtual Event, USA, September 21-24, 2020*, page 17:1. ACM, 2020. doi:10.1145/3388440.3414210.

- [82] Lorraine A K Ayad, Athanasia-Maria Dourou, Stilianos Arhondakis, and Solon P Pissis. IsoXpressor: A Tool to Assess Transcriptional Activity within Isochores. *Genome Biology and Evolution*, 12(9):1573–1578, 08 2020. ISSN 1759-6653. doi:10.1093/gbe/evaa171.
- [83] Carl Barton, Tomasz Kociumaka, Chang Liu, Solon P. Pissis, and Jakub Radoszewski. Indexing weighted sequences: Neat and efficient. *Inf. Comput.*, 270, 2020. doi:10.1016/j.ic.2019.104462.
- [84] Giulia Bernardini, Huiping Chen, Gabriele Fici, Grigorios Loukides, and Solon P. Pissis. Reverse-safe data structures for text indexing. In Guy E. Blelloch and Irene Finocchi, editors, *Proceedings of the Symposium on Algorithm Engineering and Experiments, ALENEX 2020, Salt Lake City, UT, USA, January 5-6, 2020*, pages 199–213. SIAM, 2020.
- [85] Giulia Bernardini, Huiping Chen, Grigorios Loukides, Nadia Pisanti, Solon P. Pissis, Leen Stougie, and Michelle Sweering. String Sanitization Under Edit Distance. In Inge Li Gørtz and Oren Weimann, editors, *31st Annual Symposium on Combinatorial Pattern Matching (CPM 2020)*, volume 161 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 7:1–7:14. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2020. ISBN 978-3-95977-149-8. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2020.7.
- [86] Giulia Bernardini, Nadia Pisanti, Solon P. Pissis, and Giovanna Rosone. Approximate pattern matching on elastic-degenerate text. *Theor. Comput. Sci.*, 812:109–122, 2020. doi:10.1016/j.tcs.2019.08.012.
- [87] Panagiotis Charalampopoulos, Costas S. Iliopoulos, Chang Liu, and Solon P. Pissis. Property suffix array with applications in indexing weighted sequences. *ACM J. Exp. Algorithmics*, 25:1–16, 2020. doi:10.1145/3385898.
- [88] Panagiotis Charalampopoulos, Solon P. Pissis, Jakub Radoszewski, Tomasz Walen, and Wiktor Zuba. Unary Words Have the Smallest Levenshtein k -Neighbourhoods. In Inge Li Gørtz and Oren Weimann, editors, *31st Annual Symposium on Combinatorial Pattern Matching (CPM 2020)*, volume 161 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 10:1–10:12. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Dagstuhl, Germany, 2020. ISBN 978-3-95977-149-8. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2020.10.
- [89] Maxime Crochemore, Alice Héliou, Gregory Kucherov, Laurent Mouchard, Solon P. Pissis, and Yann Ramusat. Absent words in a sliding window with applications. *Inf. Comput.*, 270, 2020. doi:10.1016/j.ic.2019.104461.
- [90] Paniz Abedin, Arnab Ganguly, Solon P. Pissis, and Sharma V. Thankachan. Range shortest unique substring queries. In Nieves R. Brisaboa and Simon J. Puglisi, editors, *String Processing and Information Retrieval - 26th International Symposium, SPIRE 2019, Segovia, Spain, October 7-9, 2019*,

Proceedings, volume 11811 of *Lecture Notes in Computer Science*, pages 258–266. Springer, 2019. doi:10.1007/978-3-030-32686-9_18.

- [91] Yannis Almirantis, Panagiotis Charalampopoulos, Jia Gao, Costas S. Iliopoulos, Manal Mohamed, Solon P. Pissis, and Dimitris Polychronopoulos. On overabundant words and their application to biological sequence analysis. *Theor. Comput. Sci.*, 792:85–95, 2019. doi:10.1016/j.tcs.2018.09.011.
- [92] Amihoud Amir, Panagiotis Charalampopoulos, Solon P. Pissis, and Jakub Radoszewski. Longest common substring made fully dynamic. In Michael A. Bender, Ola Svensson, and Grzegorz Herman, editors, *27th Annual European Symposium on Algorithms, ESA 2019, September 9-11, 2019, Munich/Garching, Germany.*, volume 144 of *LIPICs*, pages 6:1–6:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2019. doi:10.4230/LIPICs.ESA.2019.6.
- [93] Lorraine A. K. Ayad, Golnaz Badkobeh, Gabriele Fici, Alice Héliou, and Solon P. Pissis. Constructing antidictionaries in output-sensitive space. In Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagristà, and James A. Storer, editors, *Data Compression Conference, DCC 2019, Snowbird, UT, USA, March 26-29, 2019*, pages 538–547. IEEE, 2019. doi:10.1109/DCC.2019.00062.
- [94] Giulia Bernardini, Pawel Gawrychowski, Nadia Pisanti, Solon P. Pissis, and Giovanna Rosone. Even Faster Elastic-Degenerate String Matching via Fast Matrix Multiplication. In Christel Baier, Ioannis Chatzigiannakis, Paola Flocchini, and Stefano Leonardi, editors, *46th International Colloquium on Automata, Languages, and Programming (ICALP 2019)*, volume 132 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 21:1–21:15. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2019. ISBN 978-3-95977-109-2. ISSN 1868-8969. doi:10.4230/LIPICs.ICALP.2019.21.
- [95] Panagiotis Charalampopoulos, Maxime Crochemore, Costas S. Iliopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Waleń. Efficient enumeration of non-equivalent squares in partial words with few holes. *Journal of Combinatorial Optimization*, 37(2):501–522, Feb 2019. ISSN 1573-2886. doi:10.1007/s10878-018-0300-z.
- [96] Panagiotis Charalampopoulos, Costas S. Iliopoulos, Solon P. Pissis, and Jakub Radoszewski. On-line weighted pattern matching. *Inf. Comput.*, 266:49–59, 2019. doi:10.1016/j.ic.2019.01.001.
- [97] Panagiotis Charalampopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Juliusz Straszynski, Tomasz Walen, and Wiktor Zuba. Circular pattern matching with k mismatches. In Leszek Antoni Gasieniec, Jesper Jansson, and Christos Levcopoulos, editors, *Fundamentals of Computation Theory - 22nd International Symposium, FCT 2019, Copenhagen, Denmark, August 12-14, 2019, Proceedings*, volume 11651

- of *Lecture Notes in Computer Science*, pages 213–228. Springer, 2019. doi:10.1007/978-3-030-25027-0_15.
- [98] Panagiotis Charalampopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Juliusz Straszynski, Tomasz Walen, and Wiktor Zuba. Weighted shortest common supersequence problem revisited. In Nieves R. Brisaboa and Simon J. Puglisi, editors, *String Processing and Information Retrieval - 26th International Symposium, SPIRE 2019, Segovia, Spain, October 7-9, 2019, Proceedings*, volume 11811 of *Lecture Notes in Computer Science*, pages 221–238. Springer, 2019. doi:10.1007/978-3-030-32686-9_16.
- [99] Arnab Ganguly, Wing-Kai Hon, Yu-An Huang, Solon P. Pissis, Rahul Shah, and Sharma V. Thankachan. Parameterized text indexing with one wildcard. In Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagristà, and James A. Storer, editors, *Data Compression Conference, DCC 2019, Snowbird, UT, USA, March 26-29, 2019*, pages 152–161. IEEE, 2019. doi:10.1109/DCC.2019.00023.
- [100] Tomasz Kociumaka, Solon P. Pissis, and Jakub Radoszewski. Pattern matching and consensus problems on weighted sequences and profiles. *Theory Comput. Syst.*, 63(3):506–542, 2019. doi:10.1007/s00224-018-9881-2.
- [101] Nadia Pisanti and Solon P. Pissis, editors. *30th Annual Symposium on Combinatorial Pattern Matching, CPM 2019, June 18-20, 2019, Pisa, Italy*, volume 128 of *LIPICs*. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2019. ISBN 978-3-95977-103-0.
- [102] Hayam Alamro, Lorraine A. K. Ayad, Panagiotis Charalampopoulos, Costas S. Iliopoulos, and Solon P. Pissis. Longest common prefixes with k-mismatches and applications. In A Min Tjoa, Ladjel Bellatreche, Stefan Biffl, Jan van Leeuwen, and Jiří Wiedermann, editors, *SOFSEM 2018: Theory and Practice of Computer Science: 44th International Conference on Current Trends in Theory and Practice of Computer Science, Krems, Austria, January 29 - February 2, 2018, Proceedings*, volume 10706 of *Lecture Notes in Computer Science*, pages 636–649. Springer International Publishing, Cham, 2018. ISBN 978-3-319-73117-9. doi:10.1007/978-3-319-73117-9_45.
- [103] Mai Alzamel, Lorraine A. K. Ayad, Giulia Bernardini, Roberto Grossi, Costas S. Iliopoulos, Nadia Pisanti, Solon P. Pissis, and Giovanna Rosone. Degenerate String Comparison and Applications. In Laxmi Parida and Esko Ukkonen, editors, *18th International Workshop on Algorithms in Bioinformatics (WABI 2018)*, volume 113 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 21:1–21:14. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2018. ISBN 978-3-95977-082-8. ISSN 1868-8969. doi:10.4230/LIPIcs.WABI.2018.21.
- [104] Mai Alzamel, Panagiotis Charalampopoulos, Costas S. Iliopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, and Juliusz Straszynski.

- Efficient computation of sequence mappability. In *SPIRE*, volume 11147 of *Lecture Notes in Computer Science*, pages 12–26. Springer, 2018. doi:10.1007/978-3-030-00479-8_2.
- [105] Mai Alzamel, Panagiotis Charalampopoulos, Costas S. Iliopoulos, and Solon P. Pissis. How to answer a small batch of rmqs or lca queries in practice. In Ljiljana Brankovic, Joe Ryan, and William F. Smyth, editors, *Combinatorial Algorithms*, volume 10765 of *Lecture Notes in Computer Science*, pages 343–355. Springer International Publishing, Cham, 2018. doi:10.1007/978-3-319-78825-8_28.
- [106] Lorraine A. K. Ayad, Carl Barton, Panagiotis Charalampopoulos, Costas S. Iliopoulos, and Solon P. Pissis. Longest common prefixes with k-errors and applications. In *SPIRE*, volume 11147 of *Lecture Notes in Computer Science*, pages 27–41. Springer, 2018. doi:10.1007/978-3-030-00479-8_3.
- [107] Lorraine A. K. Ayad, Giulia Bernardini, Roberto Grossi, Costas S. Iliopoulos, Nadia Pisanti, Solon P. Pissis, and Giovanna Rosone. Longest property-preserved common factor. In *SPIRE*, volume 11147 of *Lecture Notes in Computer Science*, pages 42–49. Springer, 2018. doi:10.1007/978-3-030-00479-8_4.
- [108] Lorraine A K Ayad, Solon P Pissis, and Dimitris Polychronopoulos. Cnfinder: finding conserved non-coding elements in genomes. *Bioinformatics*, 34(17):i743–i747, 2018. doi:10.1093/bioinformatics/bty601.
- [109] Lorraine A.K. Ayad, Marc Chemillier, and Solon P. Pissis. Creating improvisations on chord progressions using suffix trees. *Journal of Mathematics and Music*, 12(3):233–247, 2018. doi:10.1080/17459737.2018.1538394.
- [110] Carl Barton, Chang Liu, and Solon P. Pissis. Fast average-case pattern matching on weighted sequences. *Int. J. Found. Comput. Sci.*, 29(8), 2018. doi:10.1142/S0129054118430062.
- [111] Carl Barton and Solon P. Pissis. Crochemore’s partitioning on weighted strings and applications. *Algorithmica*, 80(2):496–514, 2018. doi:10.1007/s00453-016-0266-0.
- [112] Joao A. Carrico, Maxime Crochemore, Alexandre P. Francisco, Solon P. Pissis, Bruno Ribeiro-Goncalves, and Catia Vaz. Fast phylogenetic inference from typing data. *Algorithms for Molecular Biology*, 13(1):4, Feb 2018. ISSN 1748-7188. doi:10.1186/s13015-017-0119-7.
- [113] Panagiotis Charalampopoulos, Maxime Crochemore, Gabriele Fici, Robert Mercas, and Solon P. Pissis. Alignment-free sequence comparison using absent words. *Information and Computation*, 262:57–68, 2018. ISSN 0890-5401. doi:10.1016/j.ic.2018.06.002.
- [114] Panagiotis Charalampopoulos, Maxime Crochemore, Costas S. Iliopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and

- Tomasz Walen. Linear-Time Algorithm for Long LCF with k Mismatches. In Gonzalo Navarro, David Sankoff, and Binhai Zhu, editors, *Annual Symposium on Combinatorial Pattern Matching (CPM 2018)*, volume 105 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 23:1–23:16. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2018. ISBN 978-3-95977-074-3. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2018.23.
- [115] Panagiotis Charalampopoulos, Maxime Crochemore, and Solon P. Pissis. On extended special factors of a word. In *SPIRE*, volume 11147 of *Lecture Notes in Computer Science*, pages 131–138. Springer, 2018. doi:10.1007/978-3-030-00479-8_11.
- [116] Panagiotis Charalampopoulos, Maxime Crochemore, and Solon P. Pissis. Preface. *Fundam. Inform.*, 163(3):i, 2018. doi:10.3233/FI-2018-1739.
- [117] Panagiotis Charalampopoulos, Costas S. Iliopoulos, Chang Liu, and Solon P. Pissis. Property suffix array with applications. In Michael A. Bender, Martín Farach-Colton, and Miguel A. Mosteiro, editors, *LATIN 2018: Theoretical Informatics*, volume 10807 of *Lecture Notes in Computer Science*, pages 290–302. Springer International Publishing, Cham, 2018. ISBN 978-3-319-77404-6. doi:10.1007/978-3-319-77404-6_22.
- [118] Maxime Crochemore and Solon P. Pissis. Advances in algorithms & combinatorics on strings (honoring 60th birthday for prof. costas s. iliopoulos). *Theor. Comput. Sci.*, 710:1, 2018. doi:10.1016/j.tcs.2018.01.001.
- [119] Costas S. Iliopoulos, Manal Mohamed, Solon P. Pissis, and Fatima Vayani. Maximal motif discovery in a sliding window. In *SPIRE*, volume 11147 of *Lecture Notes in Computer Science*, pages 191–205. Springer, 2018. doi:10.1007/978-3-030-00479-8_16.
- [120] Tomasz Kociumaka, Ritu Kundu, Manal Mohamed, and Solon P. Pissis. Longest Unbordered Factor in Quasilinear Time. In Wen-Lian Hsu, Der-Tsai Lee, and Chung-Shou Liao, editors, *29th International Symposium on Algorithms and Computation (ISAAC 2018)*, volume 123 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 70:1–70:13. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2018. ISBN 978-3-95977-094-1. ISSN 1868-8969. doi:10.4230/LIPIcs.ISAAC.2018.70.
- [121] Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Walen. Efficient algorithms for shortest partial seeds in words. *Theor. Comput. Sci.*, 710:139–147, 2018. doi:10.1016/j.tcs.2016.11.035.
- [122] Solon P. Pissis and Ahmad Retha. Dictionary Matching in Elastic-Degenerate Texts with Applications in Searching VCF Files On-line. In Gianlorenzo D’Angelo, editor, *17th International Symposium on Experimental Algorithms (SEA 2018)*, volume 103 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 16:1–16:14. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2018. ISBN 978-3-95977-070-5. ISSN 1868-8969. doi:10.4230/LIPIcs.SEA.2018.16.

- [123] Hayam Alamro, Mai Alzamel, Costas S. Iliopoulos, Solon P. Pissis, Steven Watts, and Wing-Kin Sung. Efficient identification of k-closed strings. In Giacomo Boracchi, Lazaros Iliadis, Chrisina Jayne, and Aristidis Likas, editors, *Engineering Applications of Neural Networks: 18th International Conference, EANN 2017, Athens, Greece, August 25–27, 2017, Proceedings*, pages 583–595. Springer International Publishing, Cham, 2017. ISBN 978-3-319-65172-9. doi:10.1007/978-3-319-65172-9_49.
- [124] Yannis Almirantis, Panagiotis Charalampopoulos, Jia Gao, Costas S. Iliopoulos, Manal Mohamed, Solon P. Pissis, and Dimitris Polychronopoulos. On avoided words, absent words, and their application to biological sequence analysis. *Algorithms for Molecular Biology*, 12(1):5, 2017. doi:10.1186/s13015-017-0094-z.
- [125] Yannis Almirantis, Panagiotis Charalampopoulos, Jia Gao, Costas S. Iliopoulos, Manal Mohamed, Solon P. Pissis, and Dimitris Polychronopoulos. Optimal Computation of Overabundant Words. In Russell Schwartz and Knut Reinert, editors, *17th International Workshop on Algorithms in Bioinformatics (WABI 2017)*, volume 88 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 4:1–4:14. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2017. ISBN 978-3-95977-050-7. ISSN 1868-8969. doi:10.4230/LIPIcs.WABI.2017.4.
- [126] Mai Alzamel, Panagiotis Charalampopoulos, Costas S. Iliopoulos, Solon P. Pissis, Jakub Radoszewski, and Wing-Kin Sung. Faster algorithms for 1-mappability of a sequence. In Xiaofeng Gao, Hongwei Du, and Meng Han, editors, *Combinatorial Optimization and Applications: 11th International Conference, COCOA 2017, Shanghai, China, December 16–18, 2017, Proceedings, Part II*, volume 10628 of *Lecture Notes in Computer Science*, pages 109–121. Springer International Publishing, Cham, 2017. doi:10.1007/978-3-319-71147-8_8.
- [127] Mai Alzamel, Jia Gao, Costas S. Iliopoulos, Chang Liu, and Solon P. Pissis. Efficient computation of palindromes in sequences with uncertainties. In Giacomo Boracchi, Lazaros Iliadis, Chrisina Jayne, and Aristidis Likas, editors, *Engineering Applications of Neural Networks: 18th International Conference, EANN 2017, Athens, Greece, August 25–27, 2017, Proceedings*, pages 620–629. Springer International Publishing, Cham, 2017. ISBN 978-3-319-65172-9. doi:10.1007/978-3-319-65172-9_52.
- [128] Amihood Amir, Panagiotis Charalampopoulos, Costas S. Iliopoulos, Solon P. Pissis, and Jakub Radoszewski. Longest common factor after one edit operation. In Gabriele Fici, Marinella Sciortino, and Rossano Venturini, editors, *String Processing and Information Retrieval: 24th International Symposium, SPIRE 2017, Palermo, Italy, September 26–29, 2017, Proceedings*, volume 10508 of *Lecture Notes in Computer Science*, pages 14–26. Springer International Publishing, Cham, 2017. doi:10.1007/978-3-319-67428-5_2.

- [129] Tanver Athar, Carl Barton, Widmer Bland, Jia Gao, Costas S. Iliopoulos, Chang Liu, and Solon P. Pissis. Fast circular dictionary-matching algorithm. *Mathematical Structures in Computer Science*, 27(2):143–156, 2017. doi:10.1017/S0960129515000134.
- [130] Lorraine A. K. Ayad, Carl Barton, and Solon P. Pissis. A faster and more accurate heuristic for cyclic edit distance computation. *Pattern Recognition Letters*, 88:81–87, 2017. doi:10.1016/j.patrec.2017.01.018.
- [131] Lorraine A. K. Ayad and Solon P. Pissis. Mars: improving multiple circular sequence alignment using refined sequences. *BMC Genomics*, 18(1):86, 2017. doi:10.1186/s12864-016-3477-5.
- [132] Giulia Bernardini, Nadia Pisanti, Solon P. Pissis, and Giovanna Rosone. Pattern matching on elastic-degenerate text with errors. In Gabriele Fici, Marinella Sciortino, and Rossano Venturini, editors, *String Processing and Information Retrieval: 24th International Symposium, SPIRE 2017, Palermo, Italy, September 26–29, 2017, Proceedings*, volume 10508 of *Lecture Notes in Computer Science*, pages 74–90. Springer International Publishing, Cham, 2017. doi:10.1007/978-3-319-67428-5_7.
- [133] Panagiotis Charalampopoulos, Maxime Crochemore, Costas S. Iliopoulos, Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Walen. Efficient enumeration of non-equivalent squares in partial words with few holes. In Yixin Cao and Jianer Chen, editors, *Computing and Combinatorics: 23rd International Conference, COCOON 2017, Hong Kong, China, August 3–5, 2017, Proceedings*, volume 10392 of *Lecture Notes in Computer Science*, pages 99–111. Springer International Publishing, Cham, 2017. doi:10.1007/978-3-319-62389-4_9.
- [134] Maxime Crochemore, Alexandre P. Francisco, Solon P. Pissis, and Cátia Vaz. Towards Distance-Based Phylogenetic Inference in Average-Case Linear-Time. In Russell Schwartz and Knut Reinert, editors, *17th International Workshop on Algorithms in Bioinformatics (WABI 2017)*, volume 88 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 9:1–9:14. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2017. ISBN 978-3-95977-050-7. ISSN 1868-8969. doi:10.4230/LIPIcs.WABI.2017.9.
- [135] Maxime Crochemore, Alice Heliou, Gregory Kucherov, Laurent Mouchard, Solon P. Pissis, and Yann Ramusat. Minimal absent words in a sliding window and applications to on-line pattern matching. In Ralf Klasing and Marc Zeitoun, editors, *Fundamentals of Computation Theory: 21st International Symposium, FCT 2017, Bordeaux, France, September 11–13, 2017, Proceedings*, volume 10472 of *Lecture Notes in Computer Science*, pages 164–176. Springer Berlin Heidelberg, Berlin, Heidelberg, 2017. ISBN 978-3-662-55751-8. doi:10.1007/978-3-662-55751-8_14.
- [136] Ignazio Fontana, Giovanni Giacalone, Angelo Bonanno, Salvatore Mazzola, Gualtiero Basilone, Simona Genovese, Salvatore Aronica, Solon Pissis,

- Costas S. Iliopoulos, Ritu Kundu, Antonino Fiannaca, Alessio Langiu, Giosue Lo Bosco, Massimo La Rosa, and Riccardo Rizzo. Pelagic species identification by using a pnn neural network and echo-sounder data. In *Artificial Neural Networks and Machine Learning – ICANN 2017 - 26th International Conference on Artificial Neural Networks, Proceedings*, volume 10613 LNCS of *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, pages 454–455. Springer Verlag, Germany, 9 2017. ISBN 9783319685991.
- [137] Roberto Grossi, Costas S. Iliopoulos, Chang Liu, Nadia Pisanti, Solon P. Pissis, Ahmad Retha, Giovanna Rosone, Fatima Vayani, and Luca Versari. On-Line Pattern Matching on Similar Texts. In Juha Kärkkäinen, Jakub Radoszewski, and Wojciech Rytter, editors, *28th Annual Symposium on Combinatorial Pattern Matching (CPM 2017)*, volume 78 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 9:1–9:14. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2017. ISBN 978-3-95977-039-2. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2017.9.
- [138] Alice Heliou, Solon P. Pissis, and Simon J. Puglisi. emMAW: computing minimal absent words in external memory. *Bioinformatics*, 33(17):2746–2749, 2017. doi:10.1093/bioinformatics/btx209.
- [139] Costas S. Iliopoulos, Ritu Kundu, and Solon P. Pissis. Efficient pattern matching in elastic-degenerate texts. In Frank Drewes, Carlos Martín-Vide, and Bianca Truthe, editors, *Language and Automata Theory and Applications: 11th International Conference, LATA 2017, Umeå, Sweden, March 6-9, 2017, Proceedings*, volume 10168 of *Lecture Notes in Computer Science*, pages 131–142. Springer International Publishing, Cham, 2017. ISBN 978-3-319-53733-7. doi:10.1007/978-3-319-53733-7_9.
- [140] Costas S. Iliopoulos, Solon P. Pissis, Simon J. Puglisi, and Rajeev Raman, editors. *16th International Symposium on Experimental Algorithms, SEA 2017, June 21-23, 2017, London, UK*, volume 75 of *LIPIcs*. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2017. ISBN 978-3-95977-036-1.
- [141] Costas S. Iliopoulos, Solon P. Pissis, and M. Sohel Rahman. Searching and indexing circular patterns. In *Algorithms for Next-Generation Sequencing Data, Techniques, Approaches, and Applications.*, pages 77–90. Springer, 2017. doi:10.1007/978-3-319-59826-0_3.
- [142] Yannis Almirantis, Panagiotis Charalampopoulos, Jia Gao, Costas S. Iliopoulos, Manal Mohamed, Solon P. Pissis, and Dimitris Polychronopoulos. Optimal computation of avoided words. In Martin Frith and Nørgaard Christian Storm Pedersen, editors, *Algorithms in Bioinformatics: 16th International Workshop, WABI 2016, Aarhus, Denmark, August 22-24, 2016. Proceedings*, pages 1–13. Springer International Publishing, 2016. ISBN 978-3-319-43681-4. doi:10.1007/978-3-319-43681-4_1.

- [143] Lorraine A. K. Ayad, Solon P. Pissis, and Ahmad Retha. libflasm: a software library for fixed-length approximate string matching. *BMC Bioinformatics*, 17:454:1–454:12, 2016. doi:10.1186/s12859-016-1320-2.
- [144] Carl Barton, Tomas Flouri, Costas S. Iliopoulos, and Solon P. Pissis. Global sequence alignment with a bounded number of gaps. In Mourad Elloumi, Costas S. Iliopoulos, Jason T. L. Wang, and Albert Y. Zomaya, editors, *Pattern Recognition in Computational Molecular Biology: Techniques and Approaches*, pages 83–96. Wiley, 2016. ISBN 978-1-118-89368-5.
- [145] Carl Barton, Costas S. Iliopoulos, Solon P. Pissis, and Stilianos Arhondakis. Transcriptome activity of isochores during pre-implantation process in human and mouse. *FEBS Letters*, 590(14):2297–2306, 2016. ISSN 1873-3468. doi:10.1002/1873-3468.12245.
- [146] Carl Barton, Tomasz Kociumaka, Solon P. Pissis, and Jakub Radoszewski. Efficient Index for Weighted Sequences. In Roberto Grossi and Moshe Lewenstein, editors, *27th Annual Symposium on Combinatorial Pattern Matching (CPM 2016)*, volume 54 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 4:1–4:13. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2016. ISBN 978-3-95977-012-5. ISSN 1868-8969. doi:10.4230/LIPIcs.CPM.2016.4.
- [147] Carl Barton, Chang Liu, and Solon P. Pissis. Linear-time computation of prefix table for weighted strings and applications. *Theoretical Computer Science*, 656, Part B:160–172, 2016. ISSN 0304-3975. doi:10.1016/j.tcs.2016.04.029. Stringology: In Celebration of Bill Smyth’s 80th Birthday.
- [148] Carl Barton, Chang Liu, and Solon P. Pissis. On-line pattern matching on uncertain sequences and applications. In T-H. Hubert Chan, Minming Li, and Lusheng Wang, editors, *Combinatorial Optimization and Applications: 10th International Conference, COCOA 2016, Hong Kong, China, December 16–18, 2016, Proceedings*, Lecture Notes in Computer Science, pages 547–562. Springer International Publishing, Cham, 2016. ISBN 978-3-319-48749-6. doi:10.1007/978-3-319-48749-6_40.
- [149] Ljiljana Brankovic, Costas S. Iliopoulos, Ritu Kundu, Manal Mohamed, Solon P. Pissis, and Fatima Vayani. Linear-time superbubble identification algorithm for genome assembly. *Theoretical Computer Science*, 609, Part 2:374–383, 2016. doi:10.1016/j.tcs.2015.10.021.
- [150] Maxime Crochemore, Gabriele Fici, Robert Mercas, and Solon P. Pissis. Linear-time sequence comparison using minimal absent words and applications. In Evangelos Kranakis, Gonzalo Navarro, and Edgar Chávez, editors, *LATIN 2016: Theoretical Informatics: 12th Latin American Symposium, Ensenada, Mexico, April 11-15, 2016, Proceedings*, Lecture Notes in Computer Science, pages 334–346. Springer Berlin Heidelberg, 2016. ISBN 978-3-662-49529-2. doi:10.1007/978-3-662-49529-2_25.

- [151] Maxime Crochemore, Costas S Iliopoulos, Tomasz Kociumaka, Marcin Kubica, Alessio Langiu, Solon P Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Walen. Order-preserving indexing. *Theoretical Computer Science*, 638:122–135, 2016. doi:10.1016/j.tcs.2015.06.050.
- [152] Maxime Crochemore, Costas S. Iliopoulos, Tomasz Kociumaka, Ritu Kundu, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Walen. Near-optimal computation of runs over general alphabet via non-crossing lce queries. In Shunsuke Inenaga, Kunihiko Sadakane, and Tetsuya Sakai, editors, *String Processing and Information Retrieval: 23rd International Symposium, SPIRE 2016, Beppu, Japan, October 18-20, 2016, Proceedings*, Lecture Notes in Computer Science, pages 22–34. Springer International Publishing, Cham, 2016. ISBN 978-3-319-46049-9. doi:10.1007/978-3-319-46049-9_3.
- [153] Roberto Grossi, Costas S. Iliopoulos, Robert Mercas, Nadia Pisanti, Solon P. Pissis, Ahmad Retha, and Fatima Vayani. Circular sequence comparison: algorithms and applications. *Algorithms for Molecular Biology*, 11:12, 2016. doi:10.1186/s13015-016-0076-6.
- [154] Tomasz Kociumaka, Solon P. Pissis, and Jakub Radoszewski. Pattern Matching and Consensus Problems on Weighted Sequences and Profiles. In Seok-Hee Hong, editor, *27th International Symposium on Algorithms and Computation (ISAAC 2016)*, volume 64 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 46:1–46:12. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany, 2016. doi:10.4230/LIPIcs.ISAAC.2016.46.
- [155] Mudhi Aljamea, Tanver Athar, Costas S. Iliopoulos, Solon P. Pissis, and Mohammad Sohel Rahman. A novel pattern matching approach for fingerprint-based authentication. In *PATTERNS 2015: The Seventh International Conferences on Pervasive Patterns and Applications*, pages 45–49. IARIA, 2015.
- [156] Hideo Bannai and Solon P. Pissis. Editorial. *Journal of Discrete Algorithms*, 34:1, 2015. doi:10.1016/j.jda.2015.05.008.
- [157] Carl Barton, Tomas Flouri, Costas S. Iliopoulos, and Solon P. Pissis. Global and local sequence alignment with a bounded number of gaps. *Theoretical Computer Science*, 582:1–16, 2015. ISSN 0304-3975. doi:10.1016/j.tcs.2015.03.016.
- [158] Carl Barton, Alice Heliou, Laurent Mouchard, and Solon P. Pissis. Parallelising the computation of minimal absent words. In Roman Wyrzykowski, Ewa Deelman, Jack Dongarra, Konrad Karczewski, Jacek Kitowski, and Kazimierz Wiatr, editors, *Parallel Processing and Applied Mathematics - 11th International Conference, PPAM 2015, Krakow, Poland, September 6-9, 2015. Revised Selected Papers, Part II*, volume 9574 of *Lecture Notes in Computer Science*, pages 243–253. Springer, 2015. doi:10.1007/978-3-319-32152-3_23.

- [159] Carl Barton, Costas S. Iliopoulos, Ritu Kundu, Solon P. Pissis, Ahmad Retha, and Fatima Vayani. Accurate and efficient methods to improve multiple circular sequence alignment. In E. Bampis, editor, *Experimental Algorithms*, volume 9125 of *Lecture Notes in Computer Science*, pages 247–258. Springer International Publishing Switzerland, 2015. doi:10.1007/978-3-319-20086-6_19.
- [160] Carl Barton, Costas S. Iliopoulos, and Solon P. Pissis. Average-case optimal approximate circular string matching. In A.-H. Dediu, E. Formenti, C. Martín-Vide, and B Truthe, editors, *Language and Automata Theory and Applications*, volume 8977 of *Lecture Notes in Computer Science*, pages 85–96. Springer Berlin Heidelberg, 2015. doi:10.1007/978-3-319-15579-1_6.
- [161] Carl Barton, Costas S. Iliopoulos, Solon P. Pissis, and William F. Smyth. Fast and simple computations using prefix tables under hamming and edit distance. In Kratochvil Jan, Mirka Miller, and Dalibor Froncek, editors, *Combinatorial Algorithms*, volume 8986 of *Lecture Notes in Computer Science*, pages 49–61. Springer International Publishing, 2015. ISBN 978-3-319-19314-4. doi:10.1007/978-3-319-19315-1_5.
- [162] Carl Barton and Solon P. Pissis. Linear-time computation of prefix table for weighted strings. In Florin Manea and Dirk Nowotka, editors, *Combinatorics on Words*, volume 9304 of *Lecture Notes in Computer Science*, pages 73–84. Springer International Publishing, 2015. ISBN 978-3-319-23659-9. doi:10.1007/978-3-319-23660-5_7.
- [163] Roberto Grossi, Costas S. Iliopoulos, Robert Mercas, Nadia Pisanti, Solon P. Pissis, Ahmad Retha, and Fatima Vayani. Circular sequence comparison with q-grams. In Mihai Pop and Helene Touzet, editors, *Algorithms in Bioinformatics*, volume 9289 of *Lecture Notes in Computer Science*, pages 203–216. Springer Berlin Heidelberg, 2015. ISBN 978-3-662-48220-9. doi:10.1007/978-3-662-48221-6_15.
- [164] Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Walen. Fast algorithm for partial covers in words. *Algorithmica*, 73(1):217–233, 2015. ISSN 0178-4617. doi:10.1007/s00453-014-9915-3.
- [165] Solon P. Pissis and Ahmad Retha. Generalised implementation for fixed-length approximate string matching under hamming distance and applications. In *2015 IEEE International Parallel and Distributed Processing Symposium Workshop, IPDPS 2015, Hyderabad, India, May 25-29, 2015*, pages 367–374. IEEE, 2015. doi:10.1109/IPDPSW.2015.106.
- [166] Carl Barton, Alice Heliou, Laurent Mouchard, and Solon P Pissis. Linear-time computation of minimal absent words using suffix array. *BMC Bioinformatics*, 15:388, 2014. doi:10.1186/s12859-014-0388-9.
- [167] Carl Barton, Costas S. Iliopoulos, Inbok Lee, Laurent Mouchard, Kunsoo Park, and Solon P. Pissis. Extending alignments with k -mismatches and

- ℓ -gaps. *Theoretical Computer Science*, 525:80–88, 2014. ISSN 0304-3975. doi:10.1016/j.tcs.2013.06.012.
- [168] Carl Barton, Costas S. Iliopoulos, and Solon P. Pissis. Fast algorithms for approximate circular string matching. *Algorithms for Molecular Biology*, 9(9), 2014. doi:10.1186/1748-7188-9-9.
- [169] Carl Barton, Costas S. Iliopoulos, and Solon P. Pissis. Optimal computation of all tandem repeats in a weighted sequence. *Algorithms for Molecular Biology*, 9(21), 2014. doi:10.1186/s13015-014-0021-5.
- [170] Carl Barton and Solon P. Pissis. Optimal computation of all repetitions in a weighted string. In Costas S. Iliopoulos and Alessio Langiu, editors, *International Conference on Algorithms for Big Data (ICABD2014)*, number 1146 in CEUR-WS Proceedings, pages 9–15. Aachen, 2014. ISSN 1613-0073.
- [171] Tomas Flouri, Kassian Kobert, Solon P. Pissis, and Alexandros Stamatakis. An optimal algorithm for computing all subtree repeats in trees. *Philosophical Transactions A*, 372(2016), 2014. doi:10.1098/rsta.2013.0140.
- [172] Vida Ghanaei, Costas S. Iliopoulos, and Solon P. Pissis. Detection of web spambot in the presence of decoy actions. In *Big Data and Cloud Computing (BdCloud), 2014 IEEE Fourth International Conference on*, pages 277–279. Dec 2014. doi:10.1109/BDCloud.2014.134.
- [173] Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Walen. Efficient algorithms for shortest partial seeds in words. In Alexander S. Kulikov, Sergei O. Kuznetsov, and Pavel Pevzner, editors, *Combinatorial Pattern Matching*, volume 8486 of *Lecture Notes in Computer Science*, pages 192–201. Springer International Publishing, 2014. doi:10.1007/978-3-319-07566-2_20.
- [174] Solon P. Pissis. Motex-ii: structured motif extraction from large-scale datasets. *BMC Bioinformatics*, 15:235, 2014. doi:10.1186/1471-2105-15-235.
- [175] Solon P. Pissis, Christian Goll, Pavlos Pavlidis, and Alexandros Stamatakis. Accelerating string matching on MIC architecture for motif extraction. In Roman Wyrzykowski, Jack Dongarra, Konrad Karczewski, and Jerzy Wasniewski, editors, *Parallel Processing and Applied Mathematics*, Lecture Notes in Computer Science, pages 258–267. Springer Berlin Heidelberg, 2014. ISBN 978-3-642-55194-9. doi:10.1007/978-3-642-55195-6_24.
- [176] Nikolaos Alachiotis, Simon Berger, Tomas Flouri, Solon P. Pissis, and Alexandros Stamatakis. libgapmis: extending short-read alignments. *BMC Bioinformatics*, 14((Suppl 11)):S4, 2013. doi:10.1186/1471-2105-14-S11-S4.
- [177] Carl Barton, Tomáš Flouri, Costas S. Iliopoulos, and Solon P. Pissis. GapsMis: flexible sequence alignment with a bounded number of gaps. In *Proceedings of the International Conference on Bioinformatics, Computational Biology*

and *Biomedical Informatics*, BCB'13, pages 402–411. ACM, New York, NY, USA, 2013. ISBN 978-1-4503-2434-2. doi:10.1145/2506583.2506584.

- [178] Carl Barton, Mathieu Giraud, Costas S. Iliopoulos, Thierry Lecroq, Laurent Mouchard, and Solon P. Pissis. Querying highly similar sequences. *International Journal of Computational Biology and Drug Design*, 6(1):119 – 130, 2013. doi:10.1504/IJCBDD.2013.052206.
- [179] Carl Barton, Costas S. Iliopoulos, and Solon P. Pissis. Circular string matching revisited. In *Proceedings of the Fourteenth Italian Conference on Theoretical Computer Science (ICTCS 2013)*, pages 200–205. 2013.
- [180] Michalis Christou, Maxime Crochemore, Costas S. Iliopoulos, Marcin Kubica, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Bartosz Szreder, and Tomasz Walen. Efficient seed computation revisited. *Theoretical Computer Science*, 483(0):171 – 181, 2013. ISSN 0304-3975. doi:10.1016/j.tcs.2011.12.078.
- [181] Michalis Christou, Tomas Flouri, Costas S. Iliopoulos, Jan Janousek, Borivoj Melichar, Solon P. Pissis, and Jan Zdarek. Tree template matching in unranked ordered trees. *Journal of Discrete Algorithms*, 20(0):51 – 60, 2013. ISSN 1570-8667. doi:10.1016/j.jda.2013.02.001.
- [182] Maxime Crochemore, Costas S. Iliopoulos, Tomasz Kociumaka, Marcin Kubica, Alessio Langiu, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Walen. Order-preserving incomplete suffix trees and order-preserving indexes. In Oren Kurland, Moshe Lewenstein, and Ely Porat, editors, *String Processing and Information Retrieval*, volume 8214 of *Lecture Notes in Computer Science*, pages 84–95. Springer International Publishing, 2013. ISBN 978-3-319-02431-8. doi:10.1007/978-3-319-02432-5_13.
- [183] Mourad Elloumi, Pedram Hayati, Costas S. Iliopoulos, Jalil A. Mirza, Solon P. Pissis, and Arfaat Shah. Comparison for the detection of virus and spam using pattern matching tools. In *Technological Advances in Electrical, Electronics and Computer Engineering (TAECE), 2013 International Conference on*, pages 304–311. 2013. ISBN 978-1-4673-5612-1. doi:10.1109/TAECE.2013.6557291.
- [184] Tomas Flouri, Kimon Frousios, Costas S. Iliopoulos, Kunsoo Park, Solon P. Pissis, and German Tischler. GapMis: a tool for pairwise sequence alignment with a single gap. *Recent Patents on DNA & Gene Sequences*, 7(2):84 – 95, 2013. ISSN 2212-3431. doi:10.2174/1872215611307020002.
- [185] Tomas Flouri, Costas S. Iliopoulos, Tomasz Kociumaka, Solon P. Pissis, Simon J. Puglisi, W.F. Smyth, and Wojciech Tyczynski. Enhanced string covering. *Theoretical Computer Science*, 506(0):102 – 114, 2013. ISSN 0304-3975. doi:10.1016/j.tcs.2013.08.013.
- [186] Tomas Flouri, Kassian Kobert, Solon P. Pissis, and Alexandros Stamatakis. An optimal algorithm for computing all subtree repeats in trees. In Thierry Lecroq

- and Laurent Mouchard, editors, *Combinatorial Algorithms*, volume 8288 of *Lecture Notes in Computer Science*, pages 269–282. Springer Berlin Heidelberg, 2013. ISBN 978-3-642-45277-2. doi:10.1007/978-3-642-45278-9_23.
- [187] Kimon Frousius, Costas S. Iliopoulos, German Tischler, Sophia Kossida, Solon P. Pissis, and Stilianos Arhondakis. Transcriptome map of mouse isochores in embryonic and neonatal cortex. *Genomics*, 101(2):120 – 124, 2013. ISSN 0888-7543. doi:10.1016/j.ygeno.2012.11.006.
- [188] Costas S. Iliopoulos and Solon P. Pissis. Algorithms for next-generation sequencing data. In Mourad Elloumi and Albert Y. Zomaya, editors, *Biological Knowledge Discovery Handbook: Preprocessing, Mining and Postprocessing of Biological Data*, pages 251–279. Wiley, 2013. ISBN 978-1-118-13273-9.
- [189] Costas S. Iliopoulos and Solon P. Pissis. Verifying an enhanced cover array in linear time. In Stefan Gruner and Bruce Watson, editors, *Formal Aspects of Computing, Essays dedicated to Derrick Kourie on the occasion of his 65th birthday*, Informatik, pages 111 – 123. Shaker Verlag, 2013. ISBN 978-3-8440-2068-7. doi:10.2370/9783844020687.
- [190] Fernando Izquierdo-Carrasco, Nikolaos Alachiotis, Simon Berger, Tomas Flouri, Solon P. Pissis, and Alexandros Stamatakis. A generic vectorization scheme and a GPU kernel for the Phylogenetic Likelihood Library. In *Proceedings of the 2013 IEEE 27th International Symposium on Parallel and Distributed Processing Workshops and PhD Forum*, IPDPSW '13, pages 530–538. IEEE Computer Society, Washington, DC, USA, 2013. ISBN 978-0-7695-4979-8. doi:10.1109/IPDPSW.2013.103.
- [191] Tomasz Kociumaka, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, and Tomasz Walen. Fast algorithm for partial covers in words. In Johannes Fischer and Peter Sanders, editors, *Combinatorial Pattern Matching*, volume 7922 of *Lecture Notes in Computer Science*, pages 177–188. Springer Berlin Heidelberg, 2013. ISBN 978-3-642-38904-7. doi:10.1007/978-3-642-38905-4_18.
- [192] Solon P. Pissis, Alexandros Stamatakis, and Pavlos Pavlidis. MoTeX: A word-based HPC tool for MoTif eXtraction. In *Proceedings of the International Conference on Bioinformatics, Computational Biology and Biomedical Informatics*, BCB'13, pages 13–22. ACM, New York, NY, USA, 2013. ISBN 978-1-4503-2434-2. doi:10.1145/2506583.2506587.
- [193] Amborella Genome Project. The Amborella genome and the evolution of flowering plants. *Science*, 342(6165), 2013. doi:10.1126/science.1241089.
- [194] Nikolaos Alachiotis, Simon Berger, Tomas Flouri, Solon P. Pissis, and Alexandros Stamatakis. Libgapmis: An ultrafast library for short-read single-gap alignment. *2012 IEEE International Conference on Bioinformatics and Biomedicine Workshops*, 0:688–695, 2012. doi:10.1109/BIBMW.2012.6470221.

- [195] Michalis Christou, Maxime Crochemore, Tomas Flouri, Costas S. Iliopoulos, Jan Janousek, Borivoj Melichar, and Solon P. Pissis. Computing all subtree repeats in ordered trees. *Information Processing Letters*, 112(24):958 – 962, 2012. ISSN 0020-0190. doi:10.1016/j.ipl.2012.09.001.
- [196] Michalis Christou, Maxime Crochemore, Ondrej Guth, Costas S. Iliopoulos, and Solon P. Pissis. On left and right seeds of a string. *Journal of Discrete Algorithms*, 17(0):31 – 44, 2012. ISSN 1570-8667. doi:10.1016/j.jda.2012.10.004.
- [197] Mourad Elloumi, Pedram Hayati, Costas S. Iliopoulos, Solon P. Pissis, and Arfaat Shah. Detection of fixed length web spambot using real (read aligner). In *Proceedings of the CUBE International Information Technology Conference, CUBE '12*, pages 820–825. ACM, New York, NY, USA, 2012. ISBN 978-1-4503-1185-4. doi:10.1145/2381716.2381871.
- [198] Tomas Flouri, Costas S. Iliopoulos, Jan Janousek, Borivoj Melichar, and Solon P. Pissis. Tree template matching in ranked ordered trees by pushdown automata. *Journal of Discrete Algorithms*, 17(0):15 – 23, 2012. doi:10.1016/j.jda.2012.10.003.
- [199] Tomas Flouri, Costas S. Iliopoulos, Tomasz Kociumaka, Solon P. Pissis, Simon J. Puglisi, W. F. Smyth, and Wojciech Tyczynski. New and efficient approaches to the quasiperiodic characterisation of a string. In Jan Holub and Jan Zdarek, editors, *Proceedings of the Prague Stringology Conference (PSC 2012)*, pages 75–88. Czech Technical University in Prague, 2012. ISBN 978-80-01-05095-8.
- [200] Tomas Flouri, Costas S. Iliopoulos, Kunsoo Park, and Solon P. Pissis. GapMis-OMP: Pairwise short-read alignment on multi-core architectures. In Lazaros Iliadis, Ilias Maglogiannis, Harris Papadopoulos, Kostas Karatzas, and Spyros Sioutas, editors, *Artificial Intelligence Applications and Innovations*, volume 382 of *IFIP Advances in Information and Communication Technology*, pages 593–601. Springer Berlin Heidelberg, 2012. ISBN 978-3-642-33411-5. doi:10.1007/978-3-642-33412-2_61.
- [201] Tomas Flouri, Costas S. Iliopoulos, Solon P. Pissis, and German Tischler. Mapping short reads to a genomic sequence with circular structure. *International Journal of Systems Biology and Biomedical Technologies*, 1(1):26 – 34, 2012. doi:10.4018/ijssbbt.2012010103.
- [202] Tomas Flouri, Kassian Kobert, Solon P. Pissis, and Alexandros Stamatakis. A simple method for computing all subtree repeats in unordered trees in linear time. In Jan Holub, Bruce W. Watson, and Jan Zdarek, editors, *Festschrift for Borivoj Melichar*, pages 145–152. Czech Technical University in Prague, 2012.
- [203] Christos Hadjinikolis, Costas S. Iliopoulos, Solon P. Pissis, and Alexandros Stamatakis. Minimising processor communication in parallel approximate string

matching. Technical Report Exelixis-RRDR-2012-8, Heidelberg Institute for Theoretical Studies, 2012.

- [204] Costas S. Iliopoulos, Derrick Kourie, Laurent Mouchard, Themba K. Mumbuka, Solon P. Pissis, and Corne de Ridder. An algorithm for mapping short reads to a dynamically changing genomic sequence. *Journal of Discrete Algorithms*, 10(0):15 – 22, 2012. ISSN 1570-8667. doi: 10.1016/j.jda.2011.08.006.
- [205] Costas S. Iliopoulos, Mirka Miller, and Solon P. Pissis. Parallel algorithms for mapping short degenerate and weighted sequences to a reference genome. *International Journal of Foundations of Computer Science*, 23(02):249–259, 2012. doi:10.1142/S0129054112400114.
- [206] Stilianos Arhondakis, Kimon Frousius, Costas S. Iliopoulos, Solon Pissis, German Tischler, and Sophia Kossida. Transcriptome map of mouse isochores. *BMC Genomics*, 12(1):511, 2011. doi:10.1186/1471-2164-12-511.
- [207] Michalis Christou, Maxime Crochemore, Tomas Flouri, Costas Iliopoulos, Jan Janousek, Borivoj Melichar, and Solon Pissis. Computing all subtree repeats in ordered ranked trees. In Roberto Grossi, Fabrizio Sebastiani, and Fabrizio Silvestri, editors, *String Processing and Information Retrieval*, volume 7024 of *Lecture Notes in Computer Science*, pages 338–343. Springer Berlin / Heidelberg, 2011. ISBN 978-3-642-24582-4. doi:10.1007/978-3-642-24583-1_33.
- [208] Michalis Christou, Maxime Crochemore, Ondrej Guth, Costas S. Iliopoulos, and Solon P. Pissis. On the right-seed array of a string. In Bin Fu and Ding-Zhu Du, editors, *Computing and Combinatorics*, volume 6842 of *Lecture Notes in Computer Science*, pages 492–502. Springer Berlin Heidelberg, 2011. ISBN 978-3-642-22684-7. doi:10.1007/978-3-642-22685-4_43.
- [209] Michalis Christou, Maxime Crochemore, Costas Iliopoulos, Marcin Kubica, Solon Pissis, Jakub Radoszewski, Wojciech Rytter, Bartosz Szreder, and Tomasz Waleń. Efficient seeds computation revisited. In Raffaele Giancarlo and Giovanni Manzini, editors, *Combinatorial Pattern Matching*, volume 6661 of *Lecture Notes in Computer Science*, pages 350–363. Springer Berlin / Heidelberg, 2011. ISBN 978-3-642-21457-8. doi: 10.1007/978-3-642-21458-5_30.
- [210] Tomas Flouri, Costas S. Iliopoulos, and Solon P. Pissis. Dynmap: mapping short reads to multiple related genomes. In *Proceedings of the 2nd ACM Conference on Bioinformatics, Computational Biology and Biomedicine*, BCB '11, pages 330–334. ACM, New York, NY, USA, 2011. ISBN 978-1-4503-0796-3. doi:10.1145/2147805.2147845.
- [211] Tomas Flouri, Jan Janousek, Borivoj Melichar, Costas Iliopoulos, and Solon Pissis. Tree template matching in ranked ordered trees by pushdown automata. In Beatrice Bouchou-Markhoff, Pascal Caron, Jean-Marc Champarnaud, and Denis Maurel, editors, *Implementation and Application of*

- Automata*, volume 6807 of *Lecture Notes in Computer Science*, pages 273–281. Springer Berlin / Heidelberg, 2011. ISBN 978-3-642-22255-9. doi:10.1007/978-3-642-22256-6_25.
- [212] Tomás Flouri, Jan Janousek, Borivoj Melichar, Costas S. Iliopoulos, and Solon P. Pissis. Tree indexing by pushdown automata and repeats of subtrees. In Maria Ganzha, Leszek A. Maciaszek, and Marcin Paprzycki, editors, *Federated Conference on Computer Science and Information Systems - FedCSIS 2011, Szczecin, Poland, 18-21 September 2011, Proceedings*, pages 899–902. IEEE, 2011.
- [213] Tomas Flouri, Kunsoo Park, Kimon Frousius, Solon P. Pissis, Costas S. Iliopoulos, and German Tischler. Approximate string-matching with a single gap for sequence alignment. In *Proceedings of the 2nd ACM Conference on Bioinformatics, Computational Biology and Biomedicine, BCB '11*, pages 490–492. ACM, New York, NY, USA, 2011. ISBN 978-1-4503-0796-3. doi:10.1145/2147805.2147879.
- [214] Oudone Phanalasy, Mirka Miller, Costas S. Iliopoulos, Solon P. Pissis, and Elaheh Vaezpour. Construction of antimagic labeling for the cartesian product of regular graphs. *Mathematics in Computer Science*, 5(1):81–87, 2011. ISSN 1661-8270. doi:10.1007/s11786-011-0084-3.
- [215] Solon P. Pissis. *Algorithms on strings with applications in molecular biology*. Ph.D. thesis, King's College London, London, November 2011.
- [216] Pavlos Antoniou, Costas S. Iliopoulos, Laurent Mouchard, and Solon P. Pissis. Algorithms for mapping short degenerate and weighted sequences to a reference genome. *International Journal of Computational Biology and Drug Design*, 2(4):385 – 397, 2010. ISSN 1756-0756. doi:10.1504/IJCBDD.2009.030768.
- [217] Pavlos Antoniou, Costas S. Iliopoulos, Laurent Mouchard, and Solon P. Pissis. A fast and efficient algorithm for mapping short sequences to a reference genome. In Hamid R. Arabnia, editor, *Advances in Computational Biology*, volume 680 of *Advances in Experimental Medicine and Biology*, pages 399–403. Springer New York, 2010. ISBN 978-1-4419-5912-6. doi:10.1007/978-1-4419-5913-3_45.
- [218] Kaichun K. Chang, Solon P. Pissis, Jyh-Shing R. Jang, and C.S. Iliopoulos. Sub-nyquist audio fingerprinting for music recognition. In *Computer Science and Electronic Engineering Conference (CEEC), 2010 2nd*, pages 1–5. 2010. doi:10.1109/CEEC.2010.5767265.
- [219] Maxime Crochemore, Costas Iliopoulos, Solon Pissis, and German Tischler. Cover array string reconstruction. In Amihoud Amir and Laxmi Parida, editors, *Combinatorial Pattern Matching*, volume 6129 of *Lecture Notes in Computer Science*, pages 251–259. Springer Berlin / Heidelberg, 2010. ISBN 978-3-642-13508-8. doi:10.1007/978-3-642-13509-5_23.

- [220] Maxime Crochemore, Costas S. Iliopoulos, and Solon P. Pissis. A parallel algorithm for fixed-length approximate string-matching with k-mismatches. In Tapio Elomaa, Heikki Mannila, and Pekka Orponen, editors, *Algorithms and Applications*, volume 6060 of *Lecture Notes in Computer Science*, pages 92–101. Springer Berlin Heidelberg, 2010. ISBN 978-3-642-12475-4. doi:10.1007/978-3-642-12476-1_6.
- [221] Tomas Flouri, Jan Holub, Costas S. Iliopoulos, and Solon P. Pissis. An algorithm for mapping short reads to a dynamically changing genomic sequence. In *Bioinformatics and Biomedicine (BIBM), 2010 IEEE International Conference on*, pages 133–136. 2010. doi:10.1109/BIBM.2010.5706551.
- [222] Kimon Frousius, Costas S. Iliopoulos, Laurent Mouchard, Solon P. Pissis, and German Tischler. REAL: an efficient REAd ALigner for next generation sequencing reads. In *Proceedings of the First ACM International Conference on Bioinformatics and Computational Biology, BCB '10*, pages 154–159. ACM, New York, NY, USA, 2010. ISBN 978-1-4503-0438-2. doi:10.1145/1854776.1854801.
- [223] Costas S. Iliopoulos, Laurent Mouchard, and Solon P. Pissis. A parallel algorithm for the fixed-length approximate string matching problem for high throughput sequencing technologies. In *Proceedings of the International Conference on Parallel Computing (PARCO 2009)*, volume 19 of *Advances in Parallel Computing*, pages 150–157. IOS Press, 2010. doi:10.3233/978-1-60750-530-3-150.
- [224] Costas S. Iliopoulos, Tewogboye A. Okanlawon, Solon P. Pissis, and German Tischler. Mapping short reads to a genomic sequence with circular structure. In *Information Technology and Applications in Biomedicine (ITAB), 2010 10th IEEE International Conference on*, pages 1–4. 2010. doi:10.1109/ITAB.2010.5687792.
- [225] P. Antoniou, Jacqueline W. Daykin, Costas S. Iliopoulos, Derrick Kourie, Laurent Mouchard, and Solon P. Pissis. Mapping uniquely occurring short sequences derived from high throughput technologies to a reference genome. In *Information Technology and Applications in Biomedicine, 2009. ITAB 2009. 9th International Conference on*, pages 1–4. 2009. doi:10.1109/ITAB.2009.5394394.
- [226] Pavlos Antoniou, Costas S. Iliopoulos, Laurent Mouchard, and Solon P. Pissis. Practical and efficient algorithms for degenerate and weighted sequences derived from high throughput sequencing technologies. In *Bioinformatics, Systems Biology and Intelligent Computing, 2009. IJCBS '09. International Joint Conference on*, pages 174 –180. 2009. doi:10.1109/IJCBS.2009.48.
- [227] Costas S. Iliopoulos, Mirka Miller, and Solon P. Pissis. Parallel algorithms for degenerate and weighted sequences derived from high throughput sequencing technologies. In Jan Holub and Jan Zdarek, editors, *Proceedings of the Prague*

Stringology Conference 2009, pages 249–262. Czech Technical University in Prague, Czech Republic, 2009. ISBN 978-80-01-04403-2.

- [228] Solon P. Pissis. *Parallel Fourier Transformations using shared memory nodes*. Master's thesis, University of Edinburgh, Edinburgh, September 2008.