

# Solon P. Pissis

*Doctor of Philosophy*

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## 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

- Jan 2019 - Present **Senior Researcher**, CENTRUM WISKUNDE & INFORMATICA, *Amsterdam, Netherlands*.  
Networks & Optimization group (0.8 FTE)
- Mar 2020 - Present **Associate Professor**, VRIJE UNIVERSITEIT AMSTERDAM, *Amsterdam, Netherlands*.  
Department of Computer Science (0.2 FTE)
- 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*.

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## 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.

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## 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 “Amihood Amir, Panagiotis Charalampopoulos, Costas S. Iliopoulos, Solon P. Pissis, and Jakub Radoszewski. Longest common factor after one edit operation”.

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## Citations Data

- Citations: 2771
- *h*-index: 25

*Note:* Citation data were retrieved from Google Scholar in Jun 2024.

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## Most Highly-Cited Publications

- Amborella Genome Project. The Amborella genome and the evolution of flowering plants. *Science*, 342(6165), 2013. (**Cited by 696**).
- 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. (**Cited by 87**).
- Carl Barton, Alice Héliou, Laurent Mouchard, Solon P. Pissis: Linear-time computation of minimal absent words using suffix array. *BMC Bioinform.* 15: 388 (2014). (**Cited by 47**).
- Lorraine A. K. Ayad and Solon P. Pissis. MARS: improving multiple circular sequence alignment using refined sequences. *BMC Genomics*, 18(1), 2017. (**Cited by 46**).
- Carl Barton, Costas S. Iliopoulos, and Solon P. Pissis. Fast algorithms for approximate circular string matching. *Algorithms for Molecular Biology*, 9(9), 2014. (**Cited by 45**).

*Note:* Citation data were retrieved from Google Scholar in Mar 2024.

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## Keynote Talks

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

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## Invited Talks

- 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

- 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)
- International Symposium on Experimental Algorithms (SEA 2017) — **Co-Chair**
- The Prague Stringology Conference (PSC 2023) — **Co-Chair**
- International Symposium on Algorithm and Computation (ISAAC 2022)
- European Conference on Computational Biology (ECCB 2020, 2022)

- Symposium on String Processing and Information Retrieval (SPIRE 2015, 2017, 2019, 2020, 2021, 2022)
- 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)
- Workshop on Algorithms in Bioinformatics (WABI 2018, 2020, 2021, 2022, 2023)
- Computability in Europe (CiE 2022)
- International Conference and Workshop on Algorithms and Computation (WALCOM 2018, 2020)
- Workshop on Biological Knowledge Discovery and Data Mining (BIOKDD 2012, 2013, 2014, 2018, 2019)
- International Applied Bioinformatics Conference (iABC 2020)
- International Conference on Reconciling Data Analytics, Automation, Privacy, and Security (RDAAPS 2020)
- Bioinformatics and Stringology (BioS 2014)

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## 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)

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## Ph.D Supervision (Lead Supervisor)

**2022 - present** Hilde Verbeek  
**2021 - present** Esteban Gabory  
**2019 - present** Michelle Sweering

- 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 - Present** Department of Computer Science at Vrije Universiteit
- Fundamentals of Bioinformatics (2019 - 2020, 2020 - 2021, 2021 - 2022, 2022 - 2023)
  - Algorithms in Sequence Analysis (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

## 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

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### Administrative Duties

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

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## Publications

- [1] 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.
- [2] 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.
- [3] 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.
- [4] 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.
- [5] 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.
- [6] 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.

- [7] 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.
- [8] 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.
- [9] Haodi Zhong, Grigorios Loukides, Alessio Conte, and Solon P. Pissis. Ego-network segmentation via (weighted) Jaccard median. *IEEE Transactions on Knowledge and Data Engineering*, pages 1–16, 2024. doi:10.1109/TKDE.2024.3373712.
- [10] 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.
- [11] 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.
- [12] 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.
- [13] 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.
- [14] 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.

- [15] 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.
- [16] 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.
- [17] 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.
- [18] 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.
- [19] 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.
- [20] 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.
- [21] 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.
- [22] 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.

- [23] 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.
- [24] 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.
- [25] 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.
- [26] 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.
- [27] 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.
- [28] 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.
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