Curriculum Vitae

A. Personal details:

Name: Robert George Mercaş
Date of birth: 8th April 1981
Current position: Senior Lecturer/Associate Professor
(since October 2022)
E-mail address: R.G.Mercas@lboro.ac.uk
Address: Loughborough University, UK
Department of Computer Science (TCS Research Theme)
Telephone: +44 (0) 752 5745 824
Website: www.RobertMercas.com

B. Education

2006 – 2010: PhD - University Rovira i Virgili, International PhD School in Formal Languages and Applications, Tarragona, Spain. PhD Thesis: *Repetitions in Partial Words*

2004 – 2006: Master Degree in Theoretical Computer Science - University of Bucharest, Faculty of Mathematics and Computer Science, Romania. Dissertation: *A JAVA interpreter for interactive programs with registers and voices*

2000 – 2004: Bachelor degree in Computer Science - University of Bucharest, Faculty of Mathematics and Computer Science, Romania. Graduation paper: *Oracle Databases tuning*

Other qualifications

2016 – 2018: Postgraduate Certificate of Academic Practice - Loughborough University, UK. *Fellow of the Higher Education Academy* in UK.

Language Skills

Romanian (native) • English (fluent) • Spanish (medium) • German (medium) • French (beginner)

C. Previous positions

2016 – ongoing: Loughborough University, UK (Senior Lecturer in Computer Science).

2016 (6 months): King's College London, UK (Newton International Fellow).

Recipient of the highly competitive Newton International Fellowships for a period of two years (<8% acceptance rate). The grant focused on algorithms and processing of uncertain data.

2014 – 2016: Kiel University, Germany, and King's College London, UK (DAAD – P.R.I.M.E Fellow).

Recipient of a mobility fellowship from the DAAD (German Academic Exchange Service), in cooperation with the Marie Curie Programme (<10% acceptance rate). The grant focused on bio inspired algorithms.

2013 – 2014: Kiel University, Germany (Researcher on algorithms on uncertain sequences).

2011 – 2013: Otto von Guericke University Magdeburg, Germany (Alexander von Humboldt Fellow).

Recipient of the famous Alexander von Humboldt Fellowships for a period of two years (<15% acceptance rate). The grant focused on the study of uncertain data.

2010 (3 months): LIAFA Research Group, CNRS and Paris Diderot (Paris 7), France (Researcher on plactic monoids and traces).

2007 – 2009: University of North Carolina at Greensboro, USA (Research and Teaching assistant).

Other short mobilities

2019 (5 weeks): Akita University, Japan (Researcher on combinatorics on words).

2012 (2 weeks): Turku University, Finland (Researcher on combinatorics on words).

2011 (1 month): Kyoto Sangyo University, Japan (Researcher on combinatorics on words).

2009 (3 weeks): LIAFA Research Group, France (Researcher on contextual trace monoids).

2007 (5 weeks): University of Debrecen, Hungary (Researcher on primitive words).

D. Teaching Experience

2017 – 2023: Algorithm Analysis (Loughborough University, UK)

Module Leader; specialised module; class size: 60; duties: curriculum design, delivery of lectures and workshops, assessment paper design and marking; general module management

2016 – 2023: Mathematics for Computer Science (Loughborough University, UK)

Module Leader; core module; class size: 150; duties: curriculum design, delivery of lectures and workshops, assessment paper design and marking, general module management

2016 – 2022: BSc and MsC final year project supervisor (Loughborough University, UK)

Module Tutor; project proposals and project supervision

2014 – 2016: Text searching and processing (King's College London, UK)

Teaching Assistant; final year and MSci module; class size: 100; duties: delivery of lectures and workshops, assessment paper marking

2007 – 2009: Combinatorics on words (University of North Carolina at Greensboro, USA)

Teaching Assistant; specialised undergraduate research module; class size: 10; duties: design and delivery of lectures, coordination of research

2005 – 2006: Programming using C (University of Bucharest, Romania)

Teaching Assistant; core module; class size: 60; duties: delivery of workshops, assessment paper marking

2005 – 2006: Data Structures (University of Bucharest, Romania)

Teaching Assistant; core module; class size: 40; duties: delivery of workshops, assessment paper marking

2005 – 2006: Computer Networks and Distributed Calculus (University of Bucharest, Romania)

Teaching Assistant; specialised module; class size: 40; duties: delivery of workshops, assessment paper marking

2005 – 2005: Operating Systems (entry level) (Milenium School, Romania)

Teacher; general public course; class size: 15; duties: curriculum design, delivery of classes, assessment design and marking

2005 – 2005: Microsoft Office package (Milenium School, Romania)

Teacher; general public course; class size: 15; duties: curriculum design, delivery of classes, assessment design and marking

E. Administrative Experience

2020 – 2022: Final Year Project Coordinator (Loughborough University, UK)

I successfully took the department through Covid times; implemented ethical and export control policies; implemented a more student focused approach for project allocation; managed the Day-Back-Day event; managed the submission system; updated the web relevant pages.

2018 – 2022: Theoretical Computer Science Theme Coordinator (Loughborough University, UK)

developed a specialised seminar series; main contact person to industry; managed the website for the research theme.

2019: co-chair for WORDS conference (Loughborough University, UK)

secured funding; selected programme committees; invited keynote speakers; managed venues; managed catering and accommodation.

2007 – 2009: Research Assistant (University of North Carolina at Greensboro, USA)

tutored, mentored and supervised research for elite undergraduate students in the USA: "Research Education for Undergraduates" (REU) camps which involved nationwide recruitment, with every participating student contributing within the two months to at least one international publication.

F. Research interest

Algorithms on Sequences • Combinatorics on Words • Bioinformatics (Algorithms) • Applications to Text Processing • Formal Languages and Automata • Trace Monoids • Learning Theory (Pattern Inference) • Natural Language Processing (New Developments)

G. Professional activities and achievements

Research students

Graduated PhD students: Laura K. Hutchinson

Current PhD students: Arbis Percy Reyes Paredes, Ze Wang

Previous interns: Jeff Dick (Loughborough University), Théophile Dubuc (ENS Lyon)

Reviewer for

Funding bodies: ESPRC (UK); NSERC (Canada), ANR (France).

Journals: Acta Cybernetica, Algorithms, Elect. J. Comb., Fund. Informaticae, Inf. Comp., Inf. Proc. Lett., Int. J. Comp. Math., Int. J. Found. Comp. Sci., J. Automata Lang. Comb., J. Discrete Algo., J. Discrete Appl. Math., J. Discrete Math., Math. Comput., Rom JIST, Sci. Annals Comp. Sci., Theor. Comp. Sci..

Conferences: AFL, CiE, CIAA, CPM, CSR, DCFS, DLT, FCT, ICAART, ISAAC, IWOCA, JM, LATA, MACIS, MFCS, NCMA, PAAMS, SPIRE, SYNASC, STACS, UCNC, WORDS.

PhD thesis: Markus Whiteland, Marie Lejeune, Szymon Łopaciuk

Chapters: Springer; CRC Press.

Invited Talks

2020 (June): Clusters of repetition roots, "Combinatorics on Words" thematic week at Liège, Belgium

2019 (May): Ambiguity of Parikh Matrices, University of Leicester, UK,

2017 (August): On the number of factors with maximal-exponent in words, DLT 2017, Belgium

2016 (March): Algorithms on Sequences (invited lecture), Goldsmiths, University of London, UK

2014 (September): On the k-Abelian Equivalence Relation, DACS workshop of ICTAC 2014, Romania

2013 (August): Repetitions in Partial Words, 150 years Anniversary, University of Bucharest, Romania

2012 (November): Connections between regular and partial words languages, Turku University, Finland

2012 (November): Cross-sections and equivalences of the plactic monoid, Kiel University, Germany,

2011 (December): Pseudorepetitions in words, Kyoto Sangyo University, Japan

2011 (December): Cross-sections of the plactic monoid, Kyoto Sangyo University, Japan

2010 (June): Avoidable Patterns in Partial Words, University of Magdeburg, Germany

2009 (June): Abelian Squares in Partial Words, UNC at Greensboro, USA

2009 (June): Counting Squares in Partial Words, UNC at Greensboro, USA

2008 (June): Freeness of Partial Words, UNC at Greensboro, USA

2008 (June): Squares in Partial Words, UNC at Greensboro, USA

2007 (October): Freeness of Partial Words, University of Debrecen, Hungary

2007 (September): Repetitions in partial words, Rovira i Virgili University, Spain

2007 (June): Cube Freeness in Partial Words, UNC at Greensboro, USA

Organising committee

2019 (September): 12th WORDS, Loughborough, UK (**co-chair**)

2016 (February): 24th LSD&LAW, London, UK (**co-chair**)

2015 (September): 22nd SPIRE, London, UK

2015 (February): 23rd LSD&LAW, London, UK

2008 (March): 2nd LATA, Tarragona, Spain

2007 (March): 1st LATA, Tarragona, Spain

Program committee

2023 (June): 14th WORDS, Umeå, Sweden (**co-chair**)

2022 (September): 18th JM, Prague, Czech Republic

2022 (June): 33rd CPM, Prague, Czech Republic

2019 (September): 12th WORDS, Loughborough, UK (**co-chair**)

2019 (June): 30th CPM, Pisa, Italy

2017 (September): 24th SPIRE, Palermo, Italy

2015 (June): 2nd DACS, Bucharest, Romania

2014 (September): 16th SYNASC, Timişoara, Romania

2011 (March): 1st Interplays, Tarragona, Spain

2011 (January): 1st BILC (in conjunction with ICAART), Rome, Italy

Grants, Projects and Scholar activities

2017 (February): PhD student funding for the interdisciplinary project *GRAnD: Geometry in Robotics, Algorithms and Design* within Loughborough University (60,000 GBP).

2016 (January): 24 months funding for the project *Big data: New Algorithmical Challenges* as a Newton International Fellowship from the Royal Society (90,000 GBP).

2014 (September): 18 months funding for the project *Algorithms and Data Structures on Faulty Sequences* by the P.R.I.M.E. programme of DAAD with funds provided by the Federal Ministry of Education and Research and the EU's Seventh Framework Programme (grant #605728) (109,700 EUR)

2013 (June): 9 months position as an active researcher in the project *Algorithmic Combinatorics on Sequences* from the Deutsche Forschungsgemeinschaft (35,000 EUR)

2011 (June): 2 years funding for the project *Partial words with restrictions on the unknown symbols* from the Alexander von Humboldt Foundation (85,000 EUR)

2010 (September): 6 months position as an active researcher in a Rovira i Virgili University project, *ref: 1355 U07 E30 N-2010PFR-URV-B2-02* (10,000 EUR)

2010 (March): 3 months *mobility for European Doctorate* from the Spanish Government (4,100 EUR)

2009 (September): 1 year position as an active researcher in a Rovira i Virgili University project, #1323 $U07\ E30N - 2008/InvAct/Bel,\ G./BJ01$ (15,000 EUR)

2009 (January): 2 weeks mobility grant from the European Science Foundation (ESF) for the activity *AutoMatha: from Mathematics to Applications* (1,150 EUR)

2009/8/7 (June - July): research assistant for the "Research Education for Undergraduates" programmes: *Algorithmic Combinatorics on Words*, sponsored by the US National Science Foundation (NSF grants #0452020 and #0754154) (41,600 USD)

2006 (June): *mobility grant* by the Spanish Ministry of Education and Science (2,500 EUR)

Professional training

2014: Participant at the Workshop "Combinatorics and Algorithmics of Strings" (Schloss Dagstuhl - Leibniz Center for Informatics, Germany)

2013: Participant at the Workshop "Challenges in Combinatorics on Words" (Fields Institute, Canada)

2012: Participant at the Workshop "Outstanding Challenges in Combinatorics on Words" (Banff International Research Station for Mathematical Innovation and Discovery, Canada)

2005: Fundamentals of Java Programming Language (Cisco Networking Academy, Romania)

2004: CCNA 2, Routers and Routing Basics (Cisco Networking Academy, Romania)

2003: CCNA 1, Networking Basics (Cisco Networking Academy, Romania)

Publications[1]

A. Journal papers

33. S.Z. Fazekas, R. Mercaş, O. Wu. Complexities for Jumps and Sweeps. Journal of Automata, Languages, and Combinatorics, Vol. 27(1-3), pp 131–149. (`https://doi.org/10.25596/jalc-2022-131`).

32. J. Dick, L.K. Hutchinson, R. Mercaş, D. Reidenbach. Reducing the Ambiguity of Parikh Matrices. Theoretical Computer Science, Vol. 860, pp 23–40. (`http://dx.doi.org/10.1016/j.tcs.2021.01.025`).

31. S.Z. Fazekas, R. Mercaş, D. Reidenbach. On the Prefix-Suffix Duplication Reduction. International Journal of Foundations of Computer Science, Vol. 31(1), pp 91–102. (`http://dx.doi.org/10.1142/S0129054120400067`).

30. H. Fernau, F. Manea, R. Mercaş, M.L. Schmid: Pattern Matching with Variables: Efficient Algorithms and Complexity Results. ACM Transactions on Computation Theory, 12(1): 6:1-6:37. (`https://doi.org/10.1145/3369935`).

29. P. Gawrychowski, , F. Manea, R. Mercaş, D. Nowotka: Hide and seek with repetitions. Journal of Computer and System Sciences, Vol. 101, pp 42–67. (`https://doi.org/10.1016/j.jcss.2018.10.004`).

28. P. Charalampopoulos, M. Crochemore, G. Fici, R. Mercaş, S.P. Pissis: Alignment-free sequence comparison using absent words. Information and Computation, Vol. 262, pp 57–68. (`https://doi.org/10.1016/j.ic.2018.06.002`).

[1] In theoretical computer science and in mathematics it is customary for the authors to be listed in alphabetical order, with no differences between the FIRST and LAST author in the order, considering that every author has the same contribution in the paper.

27. H. Fernau, F. Manea, R. Mercaş, M.L. Schmid: Revisiting Shinohara's Algorithm for Computing Descriptive Patterns. Theoretical Computer Science, Vol. 733, pp 44–54. (https://doi.org/10.1016/j.tcs.2018.04.035).

26. R. Mercaş: On the aperiodic avoidability of binary patterns with variables and reversals. Theoretical Computer Science, Vol. 682, pp 180–189. (http://dx.doi.org/10.1016/j.tcs.2016.12.022).

25. R. Mercaş, D. Nowotka: A note on Thue games. Information Processing Letters, Vol. 118, pp 75–77. (http://dx.doi.org/10.1016/j.ipl.2016.10.004).

24. G. Badkobeh, M. Crochemore, R. Mercaş. Counting maximal-exponent factors in words. Theoretical Computer Science, Vol. 658, Part A, pp 27–35 (http://dx.doi.org/10.1016/j.tcs.2016.02.035).

23. M. Crochemore, R. Mercaş. On the density of Lyndon roots in factors. Theoretical Computer Science, Vol. 656, Part B, pp 234–240. (http://dx.doi.org/10.1016/j.tcs.2016.02.015).

22. R. Grossi, C. Iliopoulos, R. Mercaş, N. Pisanti, S. Pissis, A. Retha and F. Vayani. Circular Sequence Comparison: Algorithms and Applications. Algorithms for Molecular Biology, Vol. 11, a. 12. (http://dx.doi.org/10.1186/s13015-016-0076-6).

21. T. Ehlers, F. Manea, R. Mercaş, D. Nowotka: k-Abelian Pattern Matching, Journal of Discrete Algorithms, Vol. 34, pp 37–48 (http://dx.doi.org/10.1016/j.jda.2015.05.004).

20. J. Dassow, F. Manea, R. Mercaş, M. Müller: Inner palindromic closure, International Journal of Foundations of Computer Science, Vol. 25(8), pp 1049–1064 (http://dx.doi.org/10.1142/S0129054114400231).

19. F. Manea, R. Mercaş, C. Tiseanu: An Algorithmic Toolbox for Periodic Partial Words, Discrete Applied Mathematics, Vol. 179, pp 174–192 (http://dx.doi.org/10.1016/j.dam.2014.07.017).

18. S.Z. Fazekas, F. Manea, R. Mercaş, K. Shikishima-Tsuji: The pseudopalindromic completion of regular languages, Information and Computation, Vol. 239, pp 222–236 (http://dx.doi.org/10.1016/j.ic.2014.09.001).

17. R. Mercaş, A. Saarela: 5-Abelian Cubes Are Avoidable on Binary Alphabets. RAIRO - Theoretical Informatics and Applications, Vol. 48(4), pp 467–478 (http://dx.doi.org/10.1051/ita/2014020).

16. R. Mercaş, P. Ochem, A. Samsonov, A. Shur: Binary patterns in binary cube-free words: avoidability and growth. RAIRO - Theoretical Informatics and Applications, Vol. 48(4), pp 369–389 (http://dx.doi.org/10.1051/ita/2014015).

15. J. Dassow, F. Manea, R. Mercaş: Regular Languages of Partial Words. Information Sciences, Vol. 268, pp 290–304 (http://dx.doi.org/10.1016/j.ins.2013.12.032).

14. S.Z. Fazekas, R. Mercaş: A note on the decidability of subword inequalities. International Journal of Foundations of Computer Science, Vol. 24(4), pp 445–452 (http://dx.doi.org/10.1142/S0129054113500135).

13. F. Manea, R. Mercaş, V. Mitrana: Hairpin Lengthening and Shortening of Regular Languages. In H. Bordihn, M. Kutrib, B. Truthe (Eds.): Languages Alive (Essays Dedicated to Jürgen Dassow on the Occasion of His 65th Birthday), LNCS 7300, 2012, pp 145–159 (http://dx.doi.org/10.1007/978-3-642-31644-9_10).

12. F. Blanchet-Sadri, R. Mercaş, A. Rashin, E. Willett: Periodicity algorithms and a conjecture on overlaps in partial words. Theoretical Computer Science, Vol. 443, pp 35–45 (http://dx.doi.org/10.1016/j.tcs.2012.03.034).

11. F. Blanchet-Sadri, R. Mercaş: The three-squares lemma for partial words with one hole. Theoretical Computer Science, Vol. 428, pp 1–9 (http://dx.doi.org/10.1016/j.tcs.2012.01.012).

10. F. Blanchet-Sadri, J. Kim, R. Mercaş, W. Severa, S. Simmons, D. Xu: Avoiding abelian squares in partial words. Journal of Combinatorial Theory, Series A, Vol. 119(1), pp 257–270 (http://dx.doi.org/10.1016/j.jcta.2011.08.008).

9. F. Blanchet-Sadri, I. Choi, R. Mercaş: Avoiding large squares in partial words. Theoretical Computer Science, Vol. 412(29), pp 3752–3758 (http://dx.doi.org/10.1016/j.tcs.2011.04.009).

8. E. Allen, F. Blanchet-Sadri, C. Byrum, M. Cucuringu, R. Mercaş: Counting Bordered Partial Words by Critical Positions. The electronic journal of combinatorics, Vol. 18, p 138 (http://www.combinatorics.org/ojs/index.php/eljc/article/view/v18i1p138).

7. F. Blanchet-Sadri, R. Mercaş, S. Simmons, E. Weissenstein: Avoidable binary patterns in partial words. Acta Informatica, Vol. 48(1), pp 25–41 (http://dx.doi.org/10.1007/s00236-010-0129-0).

6. C. Choffrut, R. Mercaş: Contextual partial commutations. Discrete Mathematics and Theoretical Computer Science, Vol. 12(4), pp 59–72 (http://www.dmtcs.org/dmtcs-ojs/index.php/dmtcs/article/viewArticle/1368).

5. F. Blanchet-Sadri, R. Mercaş, G. Scott: Counting distinct squares in partial words. Acta Cybernetica, Vol. 19(2), pp 465–477 (http://www.inf.u-szeged.hu/actacybernetica/edb/vol19n2/pdf/BlanchetSadri_2009_ActaCybernetica.pdf).

4. F. Blanchet-Sadri, R. Mercaş: A note on the number of squares in a partial word with one hole. RAIRO - Theoretical Informatics and Applications, Vol. 43, pp 767–774 (http://dx.doi.org/10.1051/ita/2009019).

3. F. Blanchet-Sadri, R. Mercaş, G. Scott: A generalization of Thue freeness for partial words. Theoretical Computer Science, Vol. 410(8-10), pp 793–800 (http://dx.doi.org/10.1016/j.tcs.2008.11.006).

2. F. Blanchet-Sadri, C.D. Davis, J. Dodge, R. Mercaş, M. Moorefield: Unbordered Partial Words. Discrete Applied Mathematics, Vol. 157(5), pp 890–900 (http://dx.doi.org/10.1016/j.dam.2008.04.004).

1. F. Manea, R. Mercaş: Freeness of partial words. Theoretical Computer Science, Vol. 389, pp 265–277 (http://dx.doi.org/10.1016/j.tcs.2007.09.028).

B. Proceedings of reviewed international conferences

25. S. Fazekas, R. Mercaş. Clusters of repetition roots forming prefix chains. DCFS 2022, LNCS to 13439, pp 43–56. (https://doi.org/10.1007/978-3-031-13257-5_4).

24. L.K. Hutchinson, R. Mercaş, D. Reidenbach. A Toolkit for Parikh Matrices. CIAA 2022, LNCS 13266, pp 116–127.(https://doi.org/10.1007/978-3-031-07469-1_9).

23. S. Fazekas, R. Mercaş. Clusters of Repetition Roots: Single Chains. SOFSEM 2021, LNCS 12607, pp 400–409. (http://dx.doi.org/10.1007/978-3-030-67731-2_29).

22. J. Dick, L.K. Hutchinson, R. Mercaş, D. Reidenbach. Reducing the Ambiguity of Parikh Matrices. LATA 2020, LNCS 12038, pp 397–411. (http://dx.doi.org/10.1007/978-3-030-40608-0_28).

21. M. Crochemore, G. Fici, R. Mercaş, S. Pissis. Linear-Time Sequence Comparison Using Minimal Absent Words & Applications. LATIN 2016, LNCS 9644, pp 334–346. (http://dx.doi.org/10.1007/978-3-662-49529-2_25).

20. R. Grossi, C. Iliopoulos, R. Mercaş, N. Pisanti, S. Pissis, A. Retha and F. Vayani. Circular Sequence Comparison with q-grams. WABI 2015, LNBI 9829, pp 203–216. (http://dx.doi.org/10.1007/978-3-662-48221-6_15).

19. H. Fernau, F. Manea, R. Mercaş, M.L. Schmid: Pattern Matching with Variables: Fast Algorithms and New Hardness Results. STACS 2015, LIPIcs 30, pp 302–315 (http://drops.dagstuhl.de/opus/volltexte/2015/4922).

18. T. Ehlers, F. Manea, R. Mercaş, D. Nowotka: k-abelian pattern matching, In: DLT 2014, LNCS 8633, pp 178–190 (http://dx.doi.org/10.1007/978-3-319-09698-8_16).

17. C. Choffrut, R. Mercaş: The lexicographic cross-section of the plactic monoid is regular, WORDS 2013, LNCS 8079, pp 83–94 (http://dx.doi.org/10.1007/978-3-642-40579-2_11).

16. J. Dassow, F. Manea, R. Mercaş, M. Müller: Inner palindromic closure. In: DLT 2013, LNCS 7907, pp 155–166 (http://dx.doi.org/10.1007/978-3-642-38771-5_15).

15. R. Mercaş, A. Saarela: 3-Abelian Cubes Are Avoidable on Binary Alphabets. In: DLT 2013, LNCS 7907, pp 374–383 (http://dx.doi.org/10.1007/978-3-642-38771-5_33).

14. P. Gawrychowski, F. Manea, R. Mercaş, D. Nowotka, C. Tiseanu: Finding Pseudo-repetitions. STACS 2013, LIPIcs 20, pp 257–268 (http://drops.dagstuhl.de/opus/volltexte/2013/3939).

13. J. Dassow, F. Manea, R. Mercaş: Connecting Partial Words and Regular Languages. In: CiE 2012, LNCS 7318, pp 151–161 (http://dx.doi.org/10.1007/978-3-642-30870-3_16).

12. S.Z. Fazekas, R. Mercaş, K. Shikishima-Tsuji: Hairpin Completion with Bounded Stem-Loop. In: DLT 2012, LNCS 7410, pp 428–439 (http://dx.doi.org/10.1007/978-3-642-31653-1_38).

11. F. Manea, R. Mercaş, D. Nowotka: Fine and Wilf's Theorem and Pseudo-repetitions. In: MFCS 2012, LNCS 7464, pp 668–680 (http://dx.doi.org/10.1007/978-3-642-32589-2_58).

10. F. Manea, R. Mercaş, C. Tiseanu: Periodicity Algorithms for Partial Words. In: MFCS 2011, LNCS 6907, pp 472–484 (http://dx.doi.org/10.1007/978-3-642-22993-0_43).

9. F. Blanchet-Sadri, J. Kim, R. Mercaş, W. Severa, S. Simmons: Abelian square-free partial words. In: LATA 2010, LNCS 6031, pp 94–105 (http://dx.doi.org/10.1007/978-3-642-13089-2_8).

8. F. Blanchet-Sadri, R. Mercaş, S. Simmons, E. Weissenstein: Avoidable binary patterns on partial words. In: LATA 2010, LNCS 6031, pp 106–117 (http://dx.doi.org/10.1007/978-3-642-13089-2_9).

7. F. Blanchet-Sadri, R. Mercaş, K. Wetzler: The three-squares lemma for partial words with one hole. 7th International Conference on Words (2009).

6. C. Choffrut, R. Mercaş: Contextual partial commutations. Automata: from Mathematics to Applications (AutoMathA 2009, Liège, Belgium).

5. A. Ortega, E. del Rosal, D. Pérez, R. Mercaş, A. Perekrestenko, M. Alfonseca: PNEPs, NEPs for Context Free Parsing: Application to Natural Language Processing. In: IWANN 2009, LNCS 5517, pp 472–479 (http://dx.doi.org/10.1007/978-3-642-02478-8_59).

4. F. Blanchet-Sadri, E. Allen, C. Byrum, R. Mercaş: How many holes can an unbordered partial word contain. In: LATA 2009, LNCS 5457, pp 176-187 (http://dx.doi.org/10.1007/978-3-642-00982-2_15).

3. F. Blanchet-Sadri, R. Mercaş, A. Rashin, E. Willett: An Answer to a Conjecture on Overlaps in Partial Words Using Periodicity Algorithms. In: LATA 2009, LNCS 5457, pp 188–199 (http://dx.doi.org/10.1007/978-3-642-00982-2_16).

2. G. Bel Enguix , M. D. Jimenez-Lopez, R. Mercaş, A. Perekrestenko: Networks of Evolutionary Processors as Natural Language Parsers. In: ICAART 2009 Proceedings, pp 626–631

1. F. Blanchet-Sadri, R. Mercaş, G. Scott: Counting Distinct Squares in Partial Words. In: AFL 2008 Proceedings, pp 122–133.

C. Editing (specify co-authors)

2. R. Mercaş, D. Reidenbach. WORDS 2019 (LNCS, Vol. 11682). (https://doi.org/10.1007/978-3-030-28796-2).

1. R. Mercaş, N. Pisanti. Special Issue LSD & LAW 2016 (Journal of Discrete Algorithms, Vol. 42, Issue 4, p 1). (http://dx.doi.org/10.1016/j.jda.2016.12.002).