Curriculum vitæ

Valérie Berthé

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Personal data

Born December 16 1968 in Lorient, France.

Nationality: French.

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Education

1988-1993: Scolarship at the École Normale Supérieure, Paris.

1988-1989: "Licence" and "Maîtrise" in Pure Mathematics, Paris VI.

1991: DEA (Master Thesis) in Pure Mathematics, Paris XI.

1992: "Agrégation" in Mathematics.

1994: Ph.D. in Pure Mathematics, Univ. Bordeaux I: "Fonctions de Carlitz et automates. Entropies conditionnelles" under the direction of J.-P. Allouche.

1999: Habilitation à diriger des recherches, Univ. Aix-Marseille II "Étude arithmétique et dynamique de suites algorithmiques", under the direction of J.-P. Allouche.

Employment

Full time researcher "Directrice de Recherches" (DR1) at the "Centre National de la Recherche Scientifique" (CNRS); hired at CNRS in November 1993 as "Chargée de Recherches".

93–2002: IML, Institut de Mathématiques de Luminy, CNRS, UPR 9016, Marseille, France.

2002–2010: LIRMM, Laboratoire d'Informatique, de Robotique et de Microélectronique de Montpellier, CNRS, UMR 5506, France. Chair of the project "Arithmétique Informatique".

2010–: IRIF, Institut de recherche en informatique fondamentale, CNRS, UMR 8243, France.

Institutional responsibilities

2013–2018 Board of the SMF (French Mathematical Society). Director of publications and associate director of the SMF (2016–2018).

2009– 2012 Board of Femmes et Mathématiques (Women in Mathematics).

2010–2015 Associate director of FSMP, Fondation Sciences Mathématiques de Paris
`http://www.sciencesmaths-paris.fr/en/`

The Foundation Sciences Mathématiques de Paris is a network of excellence created in 2006. Its members are large research institutions in the Paris area. It brings together close to 1200 researchers in mathematical sciences.

2010–2015 Associate director of LIAFA, Laboratoire d'Informatique Algorithmique: Fondements et Applications, Univ. Paris Diderot-Paris 7. LIAFA has merged with PPS into IRIF.

2007–2010 Scientific officer (Chargée de mission) at CNRS for Research Departments "Mathematics, Physics, Earth Sciences and Astronomy" and "Information and Engineering Science" in charge of the relations between mathematics and computer science.

2010–2014 Co-head with G. Theyssier of the research group SDA2 "Systèmes Dynamiques, Automates et Algorithmes" of the GDR Informatique Mathématique (IM). Executive board of GDR Informatique mathématique (2015–2018) in charge of editorial policy.

2018 I have been member of the mission on mathematics entrusted by the French Minister of National Education J.-M. Blanquer to a team of around 20 people led by Cédric Villani and Charles Torossian. The mission was tasked with assessing the current strengths and weaknesses of mathematics teaching in France, identifying potential bottlenecks and levers, before formulating concrete proposals based on best practices and international studies, in a 96-page report proposing 21 flagship measures with complementary measures to improve the effectiveness of mathematics teaching in France.[1]

Committees

2014–2018 Scientific council of the CNRS (Centre National de la Recherche Scientifique).

2011– Scientific council of the City of Paris.

2015–: Steering committee "Ecole de Printemps d'Informatique Théorique" (EPIT).

2018–: International Advisory Board of the doctoral program Discrete Mathematics, at TU and Univ Graz and MU Leoben, supported by the Austrian Science Fund FWF.

2018–: Scientific council of DIM Math Innov (2017–). The DIM Math Innov federates all laboratories and teams in mathematical sciences in the Ile-de-France Region. It helps to maintain and strengthen the great potential for interdisciplinary cooperation, promotes the integration of doctoral and post-doctoral students into the business world and coordinates the doctoral schools in the Ile-de-France network.

2004–2013: Scientific council of the CIRM (Centre International de Rencontres Mathématiques).

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[1]The report can be found at `http://cache.media.education.gouv.fr/file/Fevrier/19/0/Rapport_Villani_Torossian_21_mesures_pour_enseignement_des_mathematiques_896190.pdf`

2011–2015 and **2000–2003:** Member of the CNU (National Council of Universities), Section 25 (Mathematics). The CNU is a national council that decides on individual measures relating to the qualification, recruitment and career of university professors and lecturers.

Decoration

Chevalier de la Légion d'honneur, 2013.

Edition

Editorial board, Collection "Computer Science and information technology", Computer Science and Information Technology, ISTE-Wiley, Theoretical computer science (2012–).

Editorial Board of the book series *Fractals and Dynamics in Mathematics, Science, and the Arts: Theory and Applications*, World Scientific Publishers (2017–).

I have edited 4 collaborative books:

N. Pytheas Fogg, Substitutions in Dynamics, Arithmetics and Combinatorics, Lecture Note Mathematical Series 1794, Springer-Verlag (2002), eds. V. Berthé, S. Ferenczi, C. Mauduit, A. Siegel.

Combinatorics, Automata and Number Theory, Encyclopedia of Mathematics and its Applications 135, Cambridge University Press (2010), eds. V. Berthé, M. Rigo.

Combinatorics, Words and Symbolic Dynamics, Encyclopedia of mathematics and its applications, Cambridge University Press 159 (2016), eds. V. Berthé, M. Rigo.

Sequences, groups and number theory, Birkhäuser/Springer, Trends in Mathematics (2018), eds. V. Berthé, M. Rigo.

PhD Students supervised

2015– 2019: Paulina Cecchi Bernales (codavisor M. I. Cortez), IRIF, Univ. Paris Diderot Paris 7 and Univ. de Santiago du Chili.

2015– 2018: Pablo Rotondo (coadvisors B. Vallée, A. Viola), IRIF, Univ. Paris Diderot Paris 7 and Univ. de la Republica, Uruguay.

2010– 2013: Timo Jolivet (codavisor J. Kari), LIAFA, Univ. Paris Diderot Paris 7 and Univ. Turku, Finland.

2008– 2012: Sébastien Labbé (coadvisor S. Brlek), LIAFA, Univ. Paris Diderot Paris 7 and LACIM, UQAM, Canada. S. Labbé is now CR1 at CNRS.

2004– 2007: Thomas Fernique, LIRMM, Montpellier. Th. Fernique is now CR1 at CNRS.

2003–2005: Damien Jamet, LIRMM, Montpellier. D. Jamet is now Maître de Conférences.

2002–2005: Julien Bernat (coadvisor P. Arnoux), IML, Marseille. J. Bernat is now Maître de Conférences.

2000–2002: Boris Adamczewski, IML, Marseille. B. Adamczewski is now DR2 at CNRS.

1998–2000: Anne Siegel (coadvisor P. Arnoux), IML, Marseille. A. Siegel is now DR1 at CNRS.

Parity

I am strongly involved in the promotion of women in mathematics, as a member of the Femmes et Mathématiques Association. I played an important part in the Forum of Young Mathematicians during the last few years. I chaired the organisation committee in 2012 and I am part of the Programme Committee since 2010. I was also present at international level, as I chaired the Organising Committee of the 11th International Meeting of European Women in Mathematics in 2003.

Projects

I have conducted or took part in several French grants (ANR[2], previously called ACI projects) in mathematics or computer science:

ANR CODYS (2018–2022) "Computer orbits for dynamical systems" (main coordinator).

ANR DynA3S "Dynamical study of gcd algorithms: an algorithmic, analytic, arithmetic and symbolic approach" (2012–2018) (main coordinator).

ANR SubTile "Substitutions and Tilings" (2009–2012) (member).

ANR Kidico "Knowledge Integration for Digital convolution, Image Segmentation and Measurement" (2010–2015) (member).

ANR LAREDA "Lattice Reduction Algorithms : Dynamics, Probabilities, Experiments, Applications" (2007–2011) (coordinator for one of both poles).

ACI "Numeration" (2004–2006) (member).

ACI Jeunes chercheurs (2002–2004) "Combinatorics of multidimensional words, tilings and numeration" (main coordinator).

At the international level:

PHC[3] Amadeus (Austria) 2019 "Topology, Dynamics and number theory of fractal structures" (member).

ANR-FWF FAN (Austria) (fractals and numeration) (2012–2017) (main coordinator).

STIC-AMSUD (Argentina-France-Uruguay) 2016–2018 "AleaEnAmSud" (member). 2013–2015 "Dynalco, Advances in Analytic Combinatorics: dynamical combinatorics, and applications to number theory, information theory and cryptography" (member).

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[2]The French National Research Agency (ANR) is a public administrative institution under the authority of the French Ministry of Higher Education, Research and Innovation. The agency funds project-based research carried out by public operators cooperating with each other or with private companies.

[3]Hubert Curien (PHC) partnerships are part of the Ministry of Europe and Foreign Affairs' policy to support international scientific and technological exchanges and are implemented with the support of the Ministry of Higher Education, Research and Innovation.

PHC Amadeus (Austria) 2010–2012 "Topology of fractals arising from dynamics and applications" (member).

PHC Amadeus (Austria) 2007–2009 "Fractals and topological structures arising from dynamics" (coordinator).

PHC Sakura (Japan) 2006–2008 "Number theory and discrete dynamical systems" (member).

PAI Van Gogh (Netherlands) 2001–2002 "Arithmetic, dynamical systems and word combinatorics" (coordinator).

Research interests and publication activities

My research work focuses on the study of ergodic, probabilistic and combinatorial (in the sense of word combinatorics and symbolic dynamics) properties of dynamical systems of an arithmetic nature and their applications in theoretical computer science. Applications and motivation from computer science range from discrete geometry to word combinatorics, tiling spaces, cryptography, analysis of gcd and lattice reduction algorithms. Applications in mathematics range from Diophantine approximation and continuous fractions to numeration dynamics, symbolic dynamics, ergodic theory, topological dynamics and aperiodic order, number theory, formal power series with coefficients in a finite field, discrete mathematics.

I have published, in mathematics and in computer science, 67 papers in international journals, 21 papers in international conferences, I have written 10 chapters of books, I have been coeditor of 4 books and been coeditor for 5 special issues.

Organization of conferences

Organisation (with S. Akiyama, P. Arnoux, K. Dajani, P. Mercat) of Tiling, Recurrence and Number Theory, CIRM, 26–30 October 2020.

Organisation (with C. Frougny and W. Steiner) of "Numeration 2018", 22-25 May 2018, Paris (France). 60 part.

Organisation (with S. Labbé) of "Bridges between Automatic Sequences, Algebra and Number Theory", CRM 2017, Montréal, April 24-28 April 0217.

Organisation (with F. Durand, Th. Fernique, J. Kellendonk) fo the thematic month "Transversal aspects of tilings", 2016, Oléron, France.

Organisation (with M. Rigo) of CANT'16 (International School and Conference on "Combinatorics, Automata and Number Theory"), CIRM, France, 2016.

Organisation (with Fritz Beukers, Alex Clarke, Robbert Fokkink) of "Automatic Sequences, Number Theory, and Aperiodic Order", 2015, Delft, Hollande.

Organisation (with W. Steiner) of "Fractals and numeration", Paris, 2013.

Organisation (with M. Rigo) of CANT'12 (International School and Conference on "Combinatorics, Automata and Number Theory"), 2012, CIRM, France.

Organisation (with J. Karhumäki, D. Nowotka, J. Shallit), Mini-Workshop: Combinatorics on Words, 2010, Oberwolfach.

Organisation (with P. Lecomte and M. Rigo) of CANT'09 (International School and Conference on "Combinatorics, Automata and Number Theory"), 2009, Liège, Belgique.

Organisation (with D. Damanik and D. Lenz), Mini-Workshop: Pisot conjecture-From Rauzy fractals to Meyer sets, 2009, Oberwolfach.

Organisation (with P. Lecomte and M. Rigo) of CANT'06 (International School and Conference on "Combinatorics, Automata and Number Theory"), 2006, Liège, Belgique.

Organisation (with L. Fainsilber) of the 11$^{\text{ème}}$ conference EWM (European Mathematical Society) CIRM, Marseille, 2003.

Organisation (with J.-C. Bajard, J.-M. Boe, A. Jean-Marie G. Mélançon, F. Philippe) of the "9èmes Journées Montoises d'Informatique Théorique", Montpellier, 2002.

Organisation (with J.-P. Allouche and P. Liardet) of the "6èmes Journées Montoises d'Informatique Théorique", CIRM, Marseille, 1995.

Organisation (with P. Arnoux, A. Siegel) of the workshop "Generalized substitutions, tilings and numeration", CIRM, Marseille, 2002, 2003, 2004, 2006.

Invited talks

"Journées Montoises d'Informatique théorique", September 2016, Liège.

"Twelfth International Conference on Computability, Complexity and Randomness" (CCR 2017), Mysore, Inde.

DLT'2016, "20th International Conference on Developments in Language Theory", July 2016, Montréal.

"Journées Montoises d'Informatique théorique", September 2016, Liège, Belgium.

"Fractals and Related Fields III", September 2015, Porquerolles, France.

"Growth, symbolic dynamics and combinatorics of words in groups", June 2015, ENS, Paris, France.

"Fractals and Kronecker dynamics", New Directions in Fractal Geometry, Australian National University Canberra and ANU Kioloa Coastal Campus, Australia, November 2014.

"Words, Codes and Algebraic Combinatorics", Reutenauer fest, July 2013, Cetraro, Italy.

"Automata Theory and Symbolic Dynamics Workshop", PIMS Pacific Institute for the Mathematical Sciences, June 2013, Vancouver, University of British Columbia.

"Representing Streams", Lorentz Center, December 2012, Leiden, Netherlands.

"Ergodic Theory and Metric Number Theory", Japan Women's University (Mejiro campus), December 2012, Tokyo, Japan.

"Gcd computations and multidimensional continued fractions", VMS-SMF joint congres, Discrete mathematics, August 2012, Vietnam.

"Numeration and substitution 2012", RIMS (Research Institute for Mathematical Sciences), Kyoto University, June 2012, Kyoto, Japan.

"BIRS Outstanding Challenges in Combinatorics on Words", February 2012, Banff, Canada.

"Wild Topology 2011", July 2011, Strobl, Austria.

"SCAN 2010" GAMM - IMACS International Symposium on Scientific Computing, Computer Arithmetic and Validated Numerics, September 2010, École Normale Supérieure de Lyon.

"The Mathematics of Aperiodic Order", 2010, KIAS, September 2010, Korea.

"Numeration", Lorentz Center, June 2010, Leiden, Netherlands.

"Nombres, Séquences, Réseaux : analyse dynamique d'algorithmes", Colloque for the 60th birthday of B. Vallée, June 2010, Caen.

"DGCI 09" Discrete Geometry for Computer Imagery, October 2009, Montréal, Canada.

"Workshop on Fractals and Tilings", July 2009, Strobl, Austria.

"Second Canadian Discrete and Algorithmic Mathematics Conference" (CanaDAM 2009), CRM, May 2009, Canada.

"Combinatorial and computational aspects of tilings", July 2008, London.

"Number theory and ergodic theory", April 2008, Kanazawa, Japan.

"Number theory and ergodic theory", September 2007, Kanazawa, Japan.

"Dynamical systems and number theory", Strobl, July 2007, Austria.

"11èmes Journées Montoises d'Informatique théorique", September 2006, Rennes,

"The Kiselman fest: an international symposium in complex analysis and digital geometry", May 2006, Uppsala, Sweden.

"Fibonacci words", September 2006, Turku, Finland.

"Automatic sequences and related topics", Canadian Mathematical Society (CMS), June 2005, Waterloo, Ontario.

"Probability and Number theory", P&NT 05, June 2005, Kanazawa, Japan.

"Number theoretic algorithms and related topics", September 2004, Strobl, Austria.

"Aperiodic order: Dynamical systems, Combinatorics, and Operators", BIRS, Banff, June 2003, Canada.

"Groups and Graphs", EWM (European Women in Mathematics), September 2002, Varna, Bulgarie.

"Journées Montoises d'informatique théorique", Marne-la-Vallée, March 2000, France.

List of publications

Journals

[1] V. BERTHÉ *De nouvelles preuves "automatiques" de transcendance pour la fonction zêta de Carlitz*, Journées Arithmétiques de Genève, Astérisque **209** (1992), 159–168.

[2] V. BERTHÉ *Fonction zêta de Carlitz et automates*, Journal de Théorie des Nombres de Bordeaux **5** (1993), 53–77.

[3] V. BERTHÉ *Automates et valeurs de transcendance du logarithme de Carlitz*, Acta Arithmetica LXVI.4 (1994), 369–390.

[4] V. BERTHÉ *Combinaisons linéaires de $\frac{\zeta(s)}{\Pi^s}$ sur $\mathbf{F}_q(x)$, pour $1 \leq s \leq q - 2$*, J. Number Theory **53** (1995), 272–299.

[5] V. BERTHÉ *Conditional entropy of some automatic sequences*, J. Phys. A: Math. Gen. **27** (1994) 7993–8006.

[6] V. BERTHÉ *Fréquences des facteurs des suites sturmiennes*, Theoret. Comput. Sci. **165** (1996), 295–309.

[7] J.-P. ALLOUCHE et V. BERTHÉ *Triangle de Pascal, complexité et automates*, Bull. Belgian Math. Soc. **4** (1997), 1–23.

[8] P. ALESSANDRI, V. BERTHÉ *Autour du théorème des trois longueurs*, Enseign. Math. **44** (1998), 103–132.

[9] V. BERTHÉ, L. VUILLON *Tilings and rotations on the torus: a two-dimensional generalization of Sturmian sequences*, Discrete Math. **223** (2000), 27–53.

[10] V. BERTHÉ, N. CHEKHOVA, S. FERENCZI *Covering numbers: arithmetics and dynamics for rotations and interval exchanges*, J. Anal. Math. **79** (1999), 1–31.

[11] V. BERTHÉ, H. NAKADA *On continued fraction expansions in positive characteristic: equivalence relations and some metric properties*, Expo. Math. **18** (2000), 257–284.

[12] V. BERTHÉ, L. VUILLON *Suites doubles de basse complexité*, Journal de Théorie des Nombres de Bordeaux **12** (2000), 179–208.

[13] V. BERTHÉ, L. VUILLON *Palindromes and two-dimensional Sturmian sequences*, J. Autom. Lang. Comb. **6** (2001), 121–138.

[14] V. BERTHÉ *Complexité et automates cellulaires*, Theoret. Informatics Appl. **34** (2000), 403–423.

[15] V. BERTHÉ *Autour du système de numération d'Ostrowski*, Bull. Belg. Math. Soc. **8** (2001), 209–239.

[16] V. BERTHÉ, R. TIJDEMAN *Balance properties of multi-dimensional words*, Theoret. Comput. Sci. **273** (2002), 197–224.

[17] P. ARNOUX, V. BERTHÉ, S. ITO *Discrete planes, $\mathbb{Z}^2$-actions, Jacobi-Perron algorithm and substitutions*, Ann. Inst. Fourier (Grenoble) **52** (2002), 1001–1045.

[18] P. ARNOUX, V. BERTHÉ, A. SIEGEL *Two-dimensional iterated morphisms and discrete planes*, Theoret. Comput. Sci. **319** (2004), 145–176.

[19] V. BERTHÉ, R. TIJDEMAN *Lattices and multidimensional words*, Theoret. Comput. Sci. **319** (2004), 177–202.

[20] V. BERTHÉ, C. HOLTON, L.Q. ZAMBONI *Initial powers of Sturmian words*, Acta Arithmetica **122** (2006), 315–347.

[21] V. BERTHÉ, M. RIGO *Odometers on regular languages*, TOCS Theory of Computing Systems **40** (2007), 1–31.

[22] V. BERTHÉ, H. NAKADA, R. NATSUI *Arithmetic distributions of convergents arising from Jacobi-Perron algorithm*, Indagationes Mathematicae **17** (2006), 169–185.

[23] V. BERTHÉ, S. BRLEK, P. CHOQUETTE *Smooth words over arbitrary alphabets*, Theoret. Comput. Sci. **341** (2005), 293–310.

[24] V. BERTHÉ, A. SIEGEL *Tilings associated with numeration and substitutions*, Integers: electronic journal of combinatorial number theory **5** (2005) A2.

[25] V. BERTHÉ, C. FIORIO, D. JAMET, F. PHILIPPE *On some applications of generalized functionality for arithmetic discrete planes*, Image and Vision Computing **25** (2007), 1671–1684.

[26] P. ARNOUX, V. BERTHÉ, A. HILION, A. SIEGEL *Fractal representation of the attractive lamination of an automophism of the free group*, Ann. Inst. Fourier (Grenoble) **56** (2006), 2161–2212.

[27] V. BERTHÉ, H. EI, S. ITO, H. RAO *Invertible substitutions and Sturmian words: an application of Rauzy fractals*, Theoret. Informatics Appl. **41** (2007), 329–349.

[28] N. PYTHEAS FOGG (P. Arnoux, V. Berté, J. Cassaigne) *Substitutions sur des motifs en dimension 1* , Theoret. Informatics Appl. **41** (2007), 267–284.

[29]G. BARAT, V. BERTHÉ, P. LIARDET, J. THUSWALDNER *Dynamical directions in numeration*, Ann. Inst. Fourier (Grenoble) **56** (2006), 1987–2092.

[30] P. ARNOUX, V. BERTHÉ, T. FERNIQUE, D. JAMET *Functional stepped surfaces, flips and generalized substitutions*, Theoret. Comput. Sci. **380** (2007), 251–267.

[31] V. BERTHÉ, B. NOUVEL *Discrete rotations and symbolic dynamics*, Theoret. Comput. Sci. **380** (2007), 276–285.

[32] V. BERTHÉ, A. DE LUCA, C. REUTENAUER *On an involution of Christoffel words and Sturmian morphisms*, European Journal of Combinatorics **29** (2008), 535–553.

[33]V. BERTHÉ, A. SIEGEL *Purely periodic beta-Expansions in the Pisot non-unit case*, Journal Number Theory **127** (2007), 153–172.

[34] S. AKIYAMA, G. BARAT, V. BERTHÉ, A. SIEGEL *Boundary of central tiles associated with Pisot beta-numeration and purely periodic expansions*, Monhatshefte fur Mathematik **155** (2008), 377–419.

[35] V. BERTHÉ, H. NAKADA, R. NATSUI *Asymptotic behavior of the number of solutions for non-Archimedean approximations with restricted denominators*, Finite Fields and Their applications **14** (2008), 849–866.

[36] P. ARNOUX, V. BERTHÉ, Z. MASÁKOVA, E. PELANTOVÁ *Sturm numbers and substitution invariance of 3iet words*, Integers Integers: electronic journal of combinatorial **8** (2008) A14.

[37] V. BERTHÉ, L. IMBERT, *Diophantine approximation, Ostrowski numeration and the double-base number system*, Discrete Mathematics & Computer Science **11** (2009).

[38] V. BERTHÉ, Th. FERNIQUE, *Brun expansions of stepped surfaces*, Discrete Mathematics **311** (2011) 521–543.

[39] V. BERTHÉ, A. SIEGEL, P. SURER, W. STEINER, J. THUSWALDNER, *Fractal tiles associated with shift radix systems* Advances in Mathematics **226** (2011) 139–175.

[40] V. BERTHÉ, *Multidimensional Euclidean algorithms, numeration and substitutions*, Integers **11B** A2 (2011).

[41] V. BERTHÉ, *About thin arithmetic discrete planes*, Theoret. Comput. Sci. **412** (2011) 4757–4769.

[42] V. BERTHÉ, *Numeration and discrete dynamical systems*, Computing **94** (2012) 369–387.

[43] V. BERTHÉ, A. LACASSE, G. PAQUIN, X. PROVENÇAL, *A study of Jacobi-Perron boundary words for the generation of discrete planes*, Theoret. Comput. Sci. **502** (2013) 118–142.

[44] V. BERTHÉ, D. FRETTLÖH, V. SIRVENT, *Selfdual substitutions in dimension one*, European Journal of Combinatorics **33** (2012) 981-1000.

[45] V. BERTHÉ, T. JOLIVET, A. SIEGEL, *Substitutive Arnoux-Rauzy sequences have pure discrete spectrum*, Uniform distribution theory **7** (2012), 173–197.

[46] V. BERTHÉ, J. CASSAIGNE, W. STEINER, *Balance properties of Arnoux-Rauzy words*, International Journal of Algebra and Computation IJAC, **23** No. 4 (2013), 689–703.

[47] V. BERTHÉ, E. DOMENJOUD, T. JOLIVET, X. PROVENÇAL, Fully Subtractive Algorithm, Tribonacci numeration and connectedness of discrete planes, RIMS Kôkyûroku Bessatsu **B46** (2014) 159–174.

[48] V. BERTHÉ, V. DELECROIX, *Beyond substitutive dynamical systems: S-adic expansions,S-adic expansions: a combinatorial, arithmetic and geometric approach*, RIMS Kôkyûroku Bessatsu **B46** (2014) 81–123.

[49] V. BERTHÉ, H. NAKADA, R. NATSUI, B. VALLÉE, *Fine costs for Euclid's algorithm on polynomials and Farey maps*, Adv. in Appl. Math., **54** (2014), 27–65.

[50] V. BERTHÉ, T. JOLIVET, A. SIEGEL, *Connectedness of fractals associated with Arnoux-Rauzy substitutions*, RAIRO-Theoretical Informatics and Applications, **48** (2014), 249–266.

[51] V. BERTHÉ, C. DE FELICE, F. DOLCE, J. LEROY, D. PERRIN, C. REUTENAUER, G. RINDONE, *The finite index basis property*, Journal of Pure and Applied Algebra, **219** (2015), 2521–2537.

[52] V. BERTHÉ, C. DE FELICE, F. DOLCE, J. LEROY, D. PERRIN, C. REUTENAUER, G. RINDONE, *Bifix codes and interval exchanges*, Journal of Pure and Applied Algebra, **219** (2015), 2781–2798.

[53] V. BERTHÉ, S. LABBÉ, *Factor complexity of S-adic words generated by the Arnoux-Rauzy-Poincaré algorithm*, Adv. in Appl. Math., **63** (2015), 90–130.

[54] V. BERTHÉ, C. DE FELICE, F. DOLCE, J. LEROY, D. PERRIN, C. REUTENAUER, G. RINDONE, *Acyclic, connected and tree sets* , Monatshefte für Mathematik, **176** (2015), 521–550.

[55] V. BERTHÉ, J. BOURDON, T. JOLIVET, A. SIEGEL, *A combinatorial approach to products of Pisot substitutions*, Ergodic Theory Dynam. Systems. **36** (2016), 1757–1794.

[56] V. BERTHÉ, C. DE FELICE, F. DOLCE, J. LEROY, D. PERRIN, C. REUTENAUER, G. RINDONE, *Maximal bifix decoding*, Discrete Mathematics **338** (2015), 725–742.

[57] V. BERTHÉ, L. LHOTE, B. VALLÉE, *A probabilistic analysis of the plain multiple gcd algorithm*, Journal of Symbolic Computation **74** (2016), 425–474.

[58] V. BERTHÉ, V. DELECROIX, F. DOLCE, D. PERRIN, C. REUTENAUER, G. RINDONE, *Return words of linear involutions and fundamental groups*, Ergodic theory Dynam. Systems **37** (2017), no. 3, 693–715.

[59] V. BERTHÉ, M. MINERVINO, W. STEINER. J. THUSWALDNER, *The S-adic Pisot conjecture on two letters*, Topology Appl. **205** (2016), 47–57.

[60] V. BERTHÉ, *S-adic expansions related to continued fractions*, RIMS Kôkyûroku Bessatsu **B58** (2016), 61–84.

[61] V. BERTHÉ, C. DE FELICE, V. DELECROIX, F. DOLCE, J. LEROY, D. PERRIN, C. REUTENAUER, G. RINDONE, *Specular sets*, Theoret. Comput. Sci. **684** (2017), 3–28.

[62] V. BERTHÉ, L. LHOTE, B. VALLÉE, *The Brun Gcd Algorithm in high dimensions is almost always subtractive*, Journal of Symbolic Computation **85** (2018), 72–107.

[63] V. BERTHÉ, W. STEINER, J. THUSWALDNER, R. YASSAWI, *Recognizability for sequences of morphisms*, Ergodic Theory and Dynamical Systems, 1-36. `doi:10.1017/etds.2017.144`

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