
Employment

- 2025–2030 **SNSF – University of Geneva**, *Geneva*, Advanced Grant bursary (part-time)
2024– **CNRS – Université Claude Bernard**, *Lyon*, Senior researcher (DR2)
2021–2024 **Universität des Saarlandes**, *Saarbrücken*, Professor of Mathematics and Computer Science (W3)
2008–2021 **Georg-August University**, *Göttingen*, Professor of Mathematics (W3)
2004–2008 **École Polytechnique Fédérale**, *Lausanne*, Assistant Professor (PATT)
2001–2003 **University of California**, *Berkeley*, Charles B. Morrey Jr. Assistant Professor
2000–2001 **Swiss National Fund**, *Berkeley, Brasília, Jerusalem*, Post-doctoral researcher
1995–2000 **University of Geneva**, *Geneva*, Teaching Assistant
1992 **University of Geneva**, *Geneva*, Programmer on a parallel computer

Education

- March 2000 **Ph.D. in Mathematics**, *University of Geneva*, advisor: Pierre de la Harpe
“Croissance de groupes agissant sur des arbres”
May 1995 **Diploma in Mathematics**, *University of Geneva*, advisor: Michel Kervaire
1991–1993 **Bachelor in Mathematics and Computer Science**, *University of Geneva*

Academic Interests

- Geometric group theory and its applications, associative algebras
- Dynamical systems, in particular symbolic and holomorphic
- Complexity and computability, game theory, computer algebra

Invited Professorships

- 2024–2025 **Centre Universitaire d’Informatique**, *Geneva*, 6 months, substitute
2022 **Mathematical Sciences Research Institute**, *Berkeley*, 5 months
2019–2020 **École Normale Supérieure**, *Lyon*, 8 months
2018–2019 **Institute of Advanced Studies**, *Lyon*, 10 months
2015–2018 **École Normale Supérieure**, *Paris*, 3 years
2014 **Institut Henri Poincaré**, *Paris*, 1 month
2013 **University of Chicago**, *Chicago*, 1 month
2013 **CIMI**, *Toulouse*, 6 months

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2012 **Mittag-Leffler Institute**, *Stockholm*, 1 month
 2012 **CNRS**, *Paris*, 1 month
 2011 **CNRS**, *Paris*, 1 month
 2010 **Chinese Academy of Sciences**, *Beijing*, 6 months
 2008 **T.U. Graz**, *Graz*, 1 month
 2007 **CNRS**, *Marseille*, 1 month
 2005 **T.U. Graz**, *Graz*, 1 month

Prizes and funding (in reversed chronology)

2025– SNSF Advanced Grant [TMAG-2_216487/1], 2'173'275CHF, PI
 2023–2025 ERC Advanced Grant “ADA” [AdG 101097307], 2'419'895€, PI
 2022–2025 DFG Nachantrag “Symbolic tools in mathematics and their application” [TRR195], 135'600€, PI
 2021 Visiting Professor at the Mathematical Sciences Research Institute, Berkeley, CA
 2019–2024 ANR research grant “AlMaRe” [ANR-19-CE40-0001-01], 120'400€, member
 2018–2019 Fellowship at the Institute of Advanced Studies, Lyon
 2016–2020 GIF research grant [I-198-304.1-2015], “Geometric exponents of random walks and intermediate growth groups”, 200'000€, PI
 2015–2018 ACHN (hosting of high-level researchers, “@raction”) of the french ANR [ANR-14-ACHN-0018-01], 550'000€, PI
 2013–2014 Scientific expert at CIMI, Toulouse for 6 months
 2013–2017 DFG research grant [BA 4197/6-1], “Spaces of rational maps”, 169'300€, PI
 2013–2017 DFG research grant [BA 4197/5-1], “Algorithmic aspects of branched groups”, 169'100€, PI
 2013–2016 research grant of the Mercator foundation “KLEIN: Kulturell bildende Lernobjekte entwickeln, implementieren, neu machen”, 122'000€, joint PI
 2010 Hua Luogeng prize of the Chinese Academy of Sciences, ~90'000 RMB
 2010–2017 DFG research grant [BA 4197/1-1], “Self-similar groups and algebras”, ~130'000€, PI
 2008 NSF travel grant for a conference [DMS 0757988], with V. Nekrashevych
 2006–2009 ANR research grant [JCJC06_149094], member
 2005–2008 SNSF research grant [105469/1], PI
 2006–2007 SNSF research grant [111547/1], PI
 2007 SNSF international exchange grant [116966/1], for F. Guéritaud
 2006 SNSF international exchange grant [113024/1], for C. Voll
 2003 NSF travel grant [DMS 0307231], with V. Jones
 2001 SNSF Individual Support [83R-064282], PI
 2000 SNSF Individual Support [83R-063208], PI

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Students (PhD, Master, Bachelor)

Olivier Siegenthaler	Discrete and profinite groups acting on regular rooted trees (PhD 9.2009)
Shariful Islam	Julia sets as Martin boundary (PhD 7.2010)
Dzmitry V. Dudko	Algebraic invariants of branched coverings (PhD 2.2012)
René Hartung	Algorithmic aspects of infinitely presented groups (PhD 6.2012)
Christian Bick	Bifurcations and chaos in network dynamical systems (PhD 11.2012)
Thorsten Groth	Algorithmic problems in self-similar group theory (PhD, 2.2018)
Elisa Hartmann	Coarse cohomology with twisted coefficients (PhD, 2.2019)
Thomas Sicking	Lie dimension subrings (PhD, 10.2020)
Leon Pernak	Decision problems in self-similar groups (PhD, 2022–)
Patrick Neumann	Zeta functions of groups (Master 9.2011)
Thorsten Groth	The conjugacy problem in automata groups (Master 10.2014)
Robin Richter	Investigating the dynamics of a post-critically finite endomorphism [...] (Master 10.2015)
Julian Pape-Lange	Efficient algorithms for low entropy strings (Master 5.2018)
Cedric Holle	Interfacing computer algebra and formal proof systems
Patrick Neumann	Der Raum von endlich erzeugten Gruppen (Bachelor 7.2009)
Martin Nitsche	Streckenkomplexe (Bachelor 9.2012)
Michael Duppré	Lower bounds on the growth of Grigorchuk's group [...] (Bachelor 10.2012)
Anton Nickel	Hurwitz' Satz über summen von Quadraten (Bachelor 4.2013)
Robin Richter	Hubbard trees (Bachelor 10.2013)
Malin Lachmann	Bisets of commuting functions and their Julia sets (Bachelor 4.2014)
Sina Bittens	Free Products and Galois groups arising from Arithmetic Operations (Bachelor 10.2014)
Malo Jézéquel	Moyennabilité d'algèbres de Lie (Bachelor 06.2016)
Paul Philippe	Groupes de monodromie itérée en dynamique holomorphe (Bachelor 07.2019)
Salim Alloun	Calcul [...] de certains groupes engendrés par des automates (Bachelor 09.2020)

Supervised post-docs (in reverse chronology)

2024–	Jan Philipp Wächter
2023–	Konstantyn Bogdanov
2023–	Ivan Mitrofanov
2023–2024	Ruiwen Dong , <i>now at Oxford University, UK</i>
2022–2023	Emmanuel Rauzy , <i>now at LMU University, Germany</i>
2020–2022	Marialaura Noce , <i>now at Università di Salerno, Italy</i>
2018–2019	Rachel Skipper , <i>now at Ohio State University, USA</i>
2015–2017	Ivan Mitrofanov
2012–2016	Dzmitry Dudko , <i>now at Stony Brook University, USA</i>
2013	Jean-François Planchat
2011–2013	Bogdan Nica , <i>now at Indiana University, USA</i>
2011–2012	Michele D'Adderio , <i>now at Université Libre de Bruxelles, Belgium</i>
2010–2011	Colin Reid , <i>now at University of Newcastle, Australia</i>
2010	Luc Guyot , <i>now at Human Brain Project ÉPFL, Geneva</i>
2009–2010	Christopher Lipa

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- 2009 **Jörg Lehnert**, *now at Max Planck Institute for Mathematics Leipzig, Germany*
- 2007 **François Guéritaud**, *now at Université de Lille, France*
- 2006 **Christopher Voll**, *now at University of Bielefeld, Germany*
- 2007–2008 **Olivier Guichard**, *now at Université de Strasbourg, France*
- 2004–2006 **H. Tracy Hall**

Teaching (in reversed chronology)

- 2021– Regular 9h/week teaching at Saarland University (Bachelor-level: “Linear algebra” for computer scientists, physicists and mathematicians; “Geometric group theory” for mathematicians; “Computer algebra” for computer scientists and mathematicians); Seminar on computer-assisted proofs using Lean
- 2017–2021 Reduced-load 4.5h/week teaching at Göttingen University (1st year: “Discrete Mathematics for Data Science”; Bachelor-level: “Scientific writing”)
- 2016–2017 Advanced courses, École Normale Supérieure, Paris, France (Master-level: “Amenability”, “Complexity theory”)
- 2010 Advanced course, Chinese Academy of Sciences, Beijing (Master-level: “Iterated monodromy groups”)
- 2008–2016 Regular 9h/week teaching at Göttingen University (Bachelor-level: “Lie groups”, “Lie algebras”, “Complex analysis”, “Calculus 2”, “Calculus 1”, “Group theory”; Master-level: “Group theory”, “Associative algebras”)
- 2007 Advanced course, T.U. Graz (Master-level: “Finite state automata”)
- 2004–2008 Regular 6h/week teaching at ÉPFL, Lausanne, Switzerland (1st year: “Linear algebra”, “Theoretical computer science”; Bachelor level: “Lie algebras”; Master level: “Associative algebras”)
- 2001–2003 Regular 4.5h/week teaching at U. C. Berkeley, USA (Undergraduate: “Analysis with proofs”, “Linear algebra”, “Number theory”, “Algebra”, “Calculus for honours students”; graduate: “Trees”)

I have regularly run a weekly seminar, at ÉPFL, the University of Göttingen, and now Saarland University, aimed at advanced Bachelor and Master students.

I have also been invited numerous times to give advanced courses, concentrated on one or a few weeks.

Scientific organizational activities (in reversed chronology)

- 2023–2024 Main organizer (with A. Erschler) of the Paris Group Theory Seminar
- 2020 Head of scientific committee, Young Geometric Group Theory X
- 2020 Member of scientific advisory committee, TDLC 2020, ÉPFL, Switzerland
- 2019 Main organizer and speaker (with H. Helfgott and M. Tointon) of Oberwolfach Seminar 1943a “Growth in finite and infinite groups”, Oberwolfach, Germany
- 2019 Member of scientific committee, GAGTA2019, Bar Ilan, Israel
- 2018 Main organizer (with H. Helfgott) of international conference “Number and group theory”, Florence, Italy

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- 2015 Member of the scientific committee of GAGTA-9 at CIRM, Marseille, France
- 2014 One of the main organizers of the international conference “Holomorphic and symbolic dynamics” in Toulouse, France
- 2012 Main organizer of the workshop “Groups in action” in the Vercors mountains, France
- 2011 One of the main organizers of the summer school “Göttingen-Penn State International Summer School on Dynamical Systems” in Göttingen, Germany
- 2011 Main organizer of the workshop “Groups in action” in the Harz mountains, Germany
- 2009 One of main organizers of the symposium in honour of Vadim A. Kaimanovich, in Bremen, Germany
- 2007 Main organizer of workshop “Profinite groups and residually finite groups” in La Fouly-Champex-Trient, Switzerland
- 2005 One of main organizers of the conference “Asymptotic and Probabilistic methods in Group theory” in Geneva, Switzerland
- 2004 Main organizer of workshop “Around groups acting on trees” in Villars, Switzerland
- 2003 One of main organizers of the conference “Groups 2003” in Gaeta, Italy
- 1999 Co-organizer of conference “Groupes finis” in Geneva, Switzerland

Community service, commissions of trust

- 2005– Editor of Quadrature (journal targeted at undergraduate University students)
- 2011– Member of the GAP council (steering committee)
- 2011–2021 Curator of the Göttingen Collection of Mathematical Models
- 2012–2021 Member of Göttingen faculty committee on undergraduate studies
- 2018– Member of Scidolyse (Machine Learning in Lyon / St-Étienne)
- 2019– Editor of Images des Mathématiques (the CNRS portal for mathematical outreach)
- 2025– Editor of Mathematics of Computation
- 2021– Member of Saarbrücken Info+Mathe Master student selection committee
- 2022– Member of Saarbrücken University German-French commission

Computer skills

- C, C++ Developed and implemented algebraic and numerical standalone software
 - GAP Developed libraries, user support, steering committee
 - Julia Ported libraries, prototyping, interface with GAP
 - Scheme Wrote in 1992, with Marc Vuilleumier, the Scheme interpreter PCS/GE
- Also familiar with other mathematical languages (Maple, MATLAB/Octave, ...)

Languages

French	Native speaker	English	Fluent
German	Proficient	Italian	Intermediate
Portuguese	Intermediate	Spanish	Intermediate
Russian	Basic	Chinese	Basic
Hungarian	Basic		

Non-academic Interests

Plays the piano, the trumpet and the swiss alphorn.

Plays bridge (participated in the world junior championships) and chess (participated twice in the junior Swiss championships); programmed the at-one-time strongest “giveaway chess” program (Iznogoud) and numerous other games

Mathematical outreach, International Mathematical Olympiad training

Publications

All my publications are available online at https://arxiv.org/a/bartholdi_l_1.html.

Journal articles

- [1] Laurent Bartholdi, Serge Cantat, Tullio Ceccherini-Silberstein, and Pierre de la Harpe, *Estimates for simple random walks on fundamental groups of surfaces*, Colloq. Math. **72** (1997), no. 1, 173–193, [arXiv:math/0612409](#). MR1425552 (98d:60133a)
- [2] Laurent Bartholdi, *The growth of Grigorchuk’s torsion group*, Internat. Math. Res. Notices **20** (1998), 1049–1054, DOI 10.1155/S1073792898000622, [arXiv:math/0012108](#). MR1656258 (99i:20049)
- [3] Laurent Bartholdi, *Counting paths in graphs*, Enseign. Math. (2) **45** (1999), no. 1-2, 83–131, [arXiv:math/0012161](#). MR1703364 (2000f:05047)
- [4] Laurent Bartholdi, *Lamps, factorizations, and finite fields*, Amer. Math. Monthly **107** (2000), no. 5, 429–436, DOI 10.2307/2695298, [arXiv:math/9910056](#). MR1763395 (2001e:11118)
- [5] Laurent Bartholdi and Rostislav I. Grigorchuk, *Spectra of non-commutative dynamical systems and graphs related to fractal groups*, C. R. Acad. Sci. Paris Sér. I Math. **331** (2000), no. 6, 429–434, DOI 10.1016/S0764-4442(00)01658-X, [arXiv:math/0012174](#) (English, with English and French summaries). MR1792481 (2001i:37012)
- [6] Laurent Bartholdi and Rostislav I. Grigorchuk, *On the spectrum of Hecke type operators related to some fractal groups*, Tr. Mat. Inst. Steklova **231** (2000), no. Din. Sist., Avtom. i Beskon. Gruppy, 5–45, [arXiv:math/9910102](#); English transl., Proc. Steklov Inst. Math. **4** (231) (2000), 1–41. MR1841750 (2002d:37017)
- [7] Laurent Bartholdi, *Lower bounds on the growth of a group acting on the binary rooted tree*, Internat. J. Algebra Comput. **11** (2001), no. 1, 73–88, DOI 10.1142/S0218196701000395, [arXiv:math/9910068](#). MR1818662 (2001m:20044)
- [8] Laurent Bartholdi and Rostislav I. Grigorchuk, *Sous-groupes paraboliques et représentations de groupes branchés*, C. R. Acad. Sci. Paris Sér. I Math. **332** (2001), no. 9, 789–794, DOI 10.1016/S0764-4442(01)01946-2, [arXiv:math/0012175](#) (French, with English and French summaries). MR1836087

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- [9] Laurent Bartholdi and Zoran Šunik, *On the word and period growth of some groups of tree automorphisms*, Comm. Algebra **29** (2001), no. 11, 4923–4964, DOI 10.1081/AGB-100106794, [arXiv:math/0005113](#). MR1856923 (2002i:20040)
- [10] Laurent Bartholdi and Tullio G. Ceccherini-Silberstein, *Salem numbers and growth series of some hyperbolic graphs*, Geom. Dedicata **90** (2002), 107–114, DOI 10.1023/A:1014902918849, [arXiv:math/9910067](#). MR1898155 (2003b:20060)
- [11] Laurent Bartholdi and Tullio G. Ceccherini-Silberstein, *Growth series and random walks on some hyperbolic graphs*, Monatsh. Math. **136** (2002), no. 3, 181–202, DOI 10.1007/s006050200043, [arXiv:math/0109069](#). MR1919644 (2003g:60010)
- [12] Laurent Bartholdi and Rostislav I. Grigorchuk, *On parabolic subgroups and Hecke algebras of some fractal groups*, Serdica Math. J. **28** (2002), no. 1, 47–90, [arXiv:math/9911206](#). MR1899368 (2003c:20027)
- [13] Laurent Bartholdi, *A Wilson group of non-uniformly exponential growth*, C. R. Math. Acad. Sci. Paris **336** (2003), no. 7, 549–554, DOI 10.1016/S1631-073X(03)00131-6, [arXiv:math/0210471](#) (English, with English and French summaries). MR1981466 (2004c:20051)
- [14] Laurent Bartholdi, *Endomorphic presentations of branch groups*, J. Algebra **268** (2003), no. 2, 419–443, DOI 10.1016/S0021-8693(03)00268-0, [arXiv:math/0007062](#). MR2009317 (2004h:20044)
- [15] Laurent Bartholdi, *The 2-dimension series of the just-nonsolvable BSV group*, New Zealand J. Math. **33** (2004), no. 1, 17–23, [arXiv:math/0104076](#). MR2066313 (2005f:20063)
- [16] Laurent Bartholdi and Wolfgang Woess, *Spectral computations on lamplighter groups and Diestel-Leader graphs*, J. Fourier Anal. Appl. **11** (2005), no. 2, 175–202, DOI 10.1007/s00041-005-3079-0, [arXiv:math/0405182](#). MR2131635 (2006e:20052)
- [17] Laurent Bartholdi and Bálint Virág, *Amenability via random walks*, Duke Math. J. **130** (2005), no. 1, 39–56, DOI 10.1215/S0012-7094-05-13012-5, [arXiv:math/0305262](#). MR2176547 (2006h:43001)
- [18] Laurent Bartholdi, *Lie algebras and growth in branch groups*, Pacific J. Math. **218** (2005), no. 2, 241–282, DOI 10.2140/pjm.2005.218.241, [arXiv:math/0101222](#). MR2218347 (2007k:20069)
- [19] Laurent Bartholdi and Said N. Sidki, *The automorphism tower of groups acting on rooted trees*, Trans. Amer. Math. Soc. **358** (2006), no. 1, 329–358 (electronic), DOI 10.1090/S0002-9947-05-03712-8, [arXiv:math/0308127](#). MR2171236 (2006i:20036)
- [20] Laurent Bartholdi, Illya I. Reznikov, and Vitaly I. Sushchansky, *The smallest Mealy automaton of intermediate growth*, J. Algebra **295** (2006), no. 2, 387–414, DOI 10.1016/j.jalgebra.2004.08.040, [arXiv:math/0407312](#). MR2194959 (2006i:68060)
- [21] Laurent Bartholdi and Yves de Cornulier, *Infinite groups with large balls of torsion elements and small entropy*, Arch. Math. (Basel) **87** (2006), no. 2, 104–112, DOI 10.1007/s00013-005-1684-4, [arXiv:math/0510141](#). MR2249644 (2007f:20065)
- [22] Laurent Bartholdi, *Branch rings, thinned rings, tree enveloping rings*, Israel J. Math. **154** (2006), 93–139, [arXiv:math/0410226](#). MR2254535 (2007k:20051)
- [23] Laurent Bartholdi, André G. Henriques, and Volodymyr V. Nekrashevych, *Automata, groups, limit spaces and tilings*, J. Algebra **305** (2006), no. 2, 629–663, DOI 10.1016/j.jalgebra.2005.10.022, [arXiv:math/0412373](#). MR2266846 (2008a:20070)

- [24] Laurent Bartholdi, Benjamin Enriquez, Pavel Etingof, and Eric Rains, *Groups and Lie algebras corresponding to the Yang-Baxter equations*, J. Algebra **305** (2006), no. 2, 742–764, DOI 10.1016/j.jalgebra.2005.12.006, [arXiv:math/0509661](#). MR2266850 (2007g:17010)
- [25] Laurent Bartholdi and Volodymyr V. Nekrashevych, *Thurston equivalence of topological polynomials*, Acta Math. **197** (2006), no. 1, 1–51, DOI 10.1007/s11511-006-0007-3, [arXiv:math/0510082](#). MR2285317 (2008c:37072)
- [26] Laurent Bartholdi and Michael R. Bush, *Maximal unramified 3-extensions of imaginary quadratic fields and $SL_2(\mathbb{Z}_3)$* , J. Number Theory **124** (2007), no. 1, 159–166, DOI 10.1016/j.jnt.2006.08.008, [arXiv:0602.5364](#). MR2320997 (2008c:11153)
- [27] Laurent Bartholdi and Illya Reznikov, *A Mealy machine with polynomial growth of irrational degree*, Internat. J. Algebra Comput. **18** (2008), no. 1, 1–24, DOI 10.1142/S0218196708004287, [arXiv:math/0506203](#). MR2394721 (2009b:68087)
- [28] Laurent Bartholdi and Volodymyr V. Nekrashevych, *Iterated Monodromy Groups of Quadratic Polynomials, I*, Groups Geom. Dyn. **2** (2008), no. 3, 309–336, DOI 10.4171/GGD/42, [arXiv:math/0611177](#). MR2415302 (2009d:37074)
- [29] Laurent Bartholdi, Markus Neuhauser, and Wolfgang Woess, *Horocyclic products of trees*, J. Eur. Math. Soc. (JEMS) **10** (2008), 771–816, DOI 10.4171/JEMS/130, [arXiv:math/0601417](#). MR2421161 (2009m:05081)
- [30] Laurent Bartholdi, *On amenability of group algebras, I*, Isr. J. Math. **168** (2008), 153–165, DOI 10.1007/s11856-008-1061-7, [arXiv:math/0608302](#). MR2448055 (2010a:43001)
- [31] Laurent Bartholdi, Bettina Eick, and René Hartung, *A nilpotent quotient algorithm for certain infinitely presented groups and its applications*, Internat. J. Algebra Comput. **18** (2008), no. 8, 1321–1344, DOI 10.1142/S0218196708004871, [arXiv:0706.3131](#). MR2483125 (2010h:20002)
- [32] Laurent Bartholdi and Floriane Pochon, *On growth and torsion of groups*, Groups Geom. Dyn. **3** (2009), no. 4, 525–539, DOI 10.4171/GGD/68, [arXiv:0712.4005](#). MR2529946 (2011b:20128)
- [33] Laurent Bartholdi, *Gardens of Eden and amenability on cellular automata*, J. Eur. Math. Soc. (JEMS) **12** (2010), no. 1, 241–248, DOI 10.4171/JEMS/196, [arXiv:0709.4280](#). MR2578610 (2011e:05282)
- [34] Laurent Bartholdi and Pierre de la Harpe, *Representation zeta functions of wreath products with finite groups*, Groups Geom. Dyn. **4** (2010), no. 2, 209–249, DOI 10.4171/GGD/81, [arXiv:0809.0131](#). MR2595090 (2011h:20010)
- [35] Laurent Bartholdi and Olivier Siegenthaler, *The twisted twin of the Grigorchuk group*, Internat. J. Algebra Comput. **20** (2010), no. 4, 465–488, DOI 10.1142/S0218196710005728, [arXiv:0904.1600](#). MR2665774 (2011g:20031)
- [36] Laurent Bartholdi, Vadim A. Kaimanovich, and Volodymyr V. Nekrashevych, *On amenability of automata groups*, Duke Math. J. **154** (2010), no. 3, 575–598, DOI 10.1215/00127094-2010-046, [arXiv:0802.2837](#). MR2730578 (2011k:20048)
- [37] Laurent Bartholdi and Oleg Bogopolski, *On abstract commensurators of groups*, J. Group Theory **13** (2010), no. 6, 903–922, DOI 10.1515/JGT.2010.021, [arXiv:0902.4542](#). MR2736164 (2011k:20079)

- [38] Laurent Bartholdi, Olivier Siegenthaler, and Pavel A. Zalesskii, *The congruence subgroup problem for branch groups*, *Isr. J. Math.* **187** (2012), 419–450, DOI 10.1007/s11856-011-0086-5, [arXiv:0902.3220](#). MR2891709
- [39] Laurent Bartholdi, Thomas Schick, Nat Smale, and Steve Smale, *Hodge theory on metric spaces*, *Found. Comput. Math.* **12** (2012), no. 1, 1–48, DOI 10.1007/s10208-011-9107-3, [arXiv:0912.0284](#). Appendix B by Anthony W. Baker. MR2886155
- [40] Laurent Bartholdi and Anna Erschler, *Growth of permutational extensions*, *Invent. Math.* **189** (2012), no. 2, 431–455, DOI 10.1007/s00222-011-0368-x, [arXiv:1011.5266](#). MR2947548
- [41] Glenn C. Rhoads and Laurent Bartholdi, *Computer solution to the game of pure strategy*, *Games* **3** (2012), no. 4, 150–156, DOI 10.3390/g3040150, [arXiv:1202.0695](#). MR3028032
- [42] Laurent Bartholdi and André G. Henriques, *Orange peels and Fresnel integrals*, *Math. Intelligencer* **34** (2012), no. 3, 1–3, DOI 10.1007/s00283-012-9304-1, [arXiv:1202.3033](#). MR2973515
- [43] Laurent Bartholdi, *(Self-)similar groups and the Farrell-Jones conjectures*, *Groups Geom. Dyn.* **7** (2013), no. 1, 1–11, DOI 10.4171/GGD/175, [arXiv:1107.5339](#). MR3019074
- [44] Agata Smoktunowicz and Laurent Bartholdi, *Jacobson radical non-nil algebras of Gel’fand-Kirillov dimension 2*, *Israel J. Math.* **194** (2013), no. 2, 597–608, DOI 10.1007/s11856-012-0073-5, [arXiv:1102.2697](#). MR3047084
- [45] Laurent Bartholdi, *Automorphisms of free groups. I*, *New York J. Math.* **19** (2013), 395–421, [arXiv:1304.0498](#). MR3084710
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