

ALESSANDRO BERARDUCCI

Curriculum, 15 Jan. 2019

Personal

Born in Roma, Italy, 11th June, 1958. Nationality: Italian.

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Scientific interests

Primary: Mathematical Logic, Model Theory, o-Minimality.

Sec: Models of Arithmetics, Modal Logic, λ -calculus, Topology.

Education

1983 Laurea in Mathematics, Università di Roma “La Sapienza”.

1983-84 1st year of Graduate School of Mathematical Logic, Siena, Italy.

1989 Ph.D. in Mathematics, University of California at Berkeley.

Grants

2015, Leverhulme Grant VP2-2013-055, Queen Mary Univ. London

1989, Research Grant, Ist. Naz. di Alta Matematica “F. Severi”

Positions

2001 - today	Full Professor	University of Pisa
1992 - 2001	Associate Professor	University of Pisa
1990-92	Researcher	University of L’Aquila
1984-89	TA, Associate, RA	Univ. of California at Berkeley

Editorial activity

2008-present	Editorial Board	Journal of Logic and Analysis
2013	Coordinating Editor	Journal of Symbolic Logic
2008-13	Editorial Board	Journal of Symbolic Logic
2007-08	Editorial Board	Logic and Analysis

Committees

2017	Organizer Mini-Workshop (id 1651c)	Oberwolfach 18-23 Dec. 2016
2015	Coordinator Logic session	XX Congresso UMI, Siena 7-12 Sett.
2011	Coordinator Logic session	XIX Congresso UMI, Bologna
2011	Program Committee	WoLLIC 2011, Univ. Pennsylvania
2008	Program Committee	Logic Colloquium 2008, Bern

Research projects

- 2014-17: Italian PRIN 2012, “Models and Sets”, Local coordinator.
2011-13: PRIN 2009 “Models and Sets”, Participant.
2008-10: PRIN 2007 “Model Theory, Set Theory and applications”.
2006-08. Part. to DGICYT (MTM2005-02865), Grupo español Geometra algebraica y analítica real.
2004-06: PRIN 2004 “Logical Methods in Algebra, Analysis and Geometry”.
2002-04: PRIN 2002 “Model Theory and Set Theory, their interactions and applications”.
1998-2000: PRIN 1998 “Teorie assiomatiche per i Fondamenti di Matematica, Informatica e altre scienze; modelli e applicazioni”.
2001, 1998. Part. to HI2000-0127 and HI19970122, Acción Hispano-Italiana of the Spanish Ministry of Science (DGES).

Teaching

Calculus, Discrete Mathematics, Logic (Assistant, Berkeley). Mathematical Logic, Mathematical methods for computer science (L’Aquila). Computability and Complexity, Logic, Model Theory, Basic Set Theory, Advanced Set Theory, Arithmetic (Pisa, Math. Dept.) Linguaggi e metodi per la matematica, Discrete Mathematics and Linear Algebra (CS Dept.). Lambda calculus (Siena 1994).

Scientific activities

- 2018** Invited talk at the conference IIM 2018 Incontro Italiano Insiemi e Modelli 2018, 21-23 Feb. Torino. Title: Homotopy, dimension and hyperdefinability <http://logicatorino.altervista.org/workshop210218/index.php>
- 2018** Mini-course on “Surreal models of the real exponential fields”, Paris, Institute Henri Poincaré, 6 and 8 Feb. <http://modvac18.math.ens.fr/courses.html>
- 2017** Contributed talk on “Surreal differential calculus and transseries”, XXI incontro AILA, Padova, Orto Botanico, 25-28 Sept. <https://events.math.unipd.it/aila2017/node/3>
- 2017** Invited Speaker at the conference “Model Theory and applications to geometry”, Padova 13-15 Sett., title of talk “On the dimension of bounded hyperdefinable sets”. <https://events.math.unipd.it/mtg2017/node/3>

- 2017** Seminar at the “Summer School di Matematica del progetto Diderot”, Progetto AlphaClass2017, Osservatorio Astronomico di Saint Barthélemy, Nus (AO), 11 Sept.
- 2017** Plenary talk “Surreal differential calculus”, Logic Colloquium 2017, August 14-20, Stockholm.
<https://www.math-stockholm.se/konferenser-och-akti/logic-in-stockholm-2/logic-colloquium-2017-august-14-20-1.717648>
- 2017** Seminar on “Surreal differential calculus and transseries”, Department of Mathematics, Oxford, 26 July.
- 2017** Invited talk at “Kolloquien und Oberseminare, Fachbereich Mathematik und Statistik, Konstanz”, 6 Feb.. Title of talk “Arithmetic interpretation of the exp-algebraic integers”.
https://www.mathematik.uni-konstanz.de/forschung/kolloquien-und-oberseminare/kolloquien-detail/2017/2/6/event/24169-Arithmetical-interpretat/tx_cal_phpicalendar/
- 2016** Co-organizer of the Mini-Workshop: Surreal Numbers, Surreal Analysis, Hahn Fields and Derivations, Oberwolfach, December 18-23. Talk on “Transseries as germs of surreal functions”, https://www.mfo.de/occasion/1651c/www_view
- 2016** Invited talk “On the topology of hyperdefinable sets”, Thematic program in model theory, International conference, June 20-24, Notre Dame, IN. <https://www3.nd.edu/~cmd/programs/cmd2016/conference/index.html>
- 2016** Invited talk “The surreal numbers as a differential field: is there a better derivation?”, Workshop on Model Theory: From Fields to Hardy Fields, Fields Institute, Toronto, August 2-6, 2016. <http://www.fields.utoronto.ca/activities/16-17/hardy>
- 2016** invited talk “Transserial derivations on surreal numbers”, special session on Surreal Numbers, AMS-MAA Joint Mathematical Meetings, January 6-9, Seattle. http://jointmathematicsm meetings.org/meetings/national/jmm2016/2181_program_ss16.html#title
- 2015** Invited talk: “Compact domination, o-minimal homotopy and Pillay’s conjecture”, Lancashire Yorkshire Model Theory Seminar, 7th meeting, Dec 5th, Preston. <http://personalpages.manchester.ac.uk/staff/Marcus.Tressl/events/LYMoTS.php>

- 2015** LTCC intensive course (8 hours): “Logic meets topology: model theory, o-minimality, definable groups”. 3-4 June, London Taught Course Center, University College London. <http://www.ltcc.ac.uk/intensives/past-intensives/2014-2015-intensive-courses/>
- 2015** Leverhulme Lecture: “Ordered differential fields, Logarithmic-exponential power series and Conway’s surreal numbers”, 1 June, University of East Anglia, Pure Maths Research Seminars, <https://www.uea.ac.uk/mathematics/news-and-events/pure-seminars>
- 2015** Leverhulme Lecture: “Groups and Spaces in the o-minimal category”, 21 Apr. Queen Mary Univ. London, Geometry and Analysis Seminar, <http://www.maths.qmul.ac.uk/seminars/groups-and-spaces-o-minimal-category>
- 2015** Leverhulme Lecture: “Topology of abelian groups in the o-minimal category”, 30 March, Queen Mary University of London, School of Mathematical Sciences
- 2015** Invited talk “Hardy type derivations on the surreal numbers”, 19 Feb. University of Oxford, Mathematical Institute, Logic Seminar, <https://www.maths.ox.ac.uk/node/13708>
- 2015** Leverhulme Lecture: “Conway’s surreal numbers and Transseries”. 17 Feb., Queen Mary University of London, School of Mathematical Sciences
- 2015** Invited talk, “Hardy Fields, Surreal Numbers, Derivations”. University of Leeds, Department of Pure Mathematics, Logic Seminar, 4 Jan., <https://www1.maths.leeds.ac.uk/pure/logic/seminar.html>
- 2015** Invited talk, Surreal derivations. Logic seminar, University of Manchester, School of Mathematics, 28 Jan., <http://www.maths.manchester.ac.uk/our-research/events/seminars/logic/surreal-derivations.htm>
- 2014** 25 hours Course on “Model theory” at the Scuola Normale Superiore, Pisa, 3 March - 12 May.
- 2013** Pisa, Seminario di Algebra, Topologia e Combinatoria, Talk “Covers of definable groups”, 21 Oct.
- 2013** Madrid. Talk at the Joint UAM-ICMAT Seminar “Algebra and Combinatorics”, Sept. 13.
- 2013** Oberwolfach. Talk at the workshop “Model Theory: Groups, Geometry, and Combinatorics”, 6-12 Jan.

- 2012** Lyon. Visit 17-25 April. Talk at the “Séminaires et Groupes de travail Mathématiques”.
- 2012** Oxford, Math. Inst. Invited talk ”Discrete subgroups of locally definable groups”, Logic Seminar, 2 Feb.
- 2011** Münster, Inst. Math. Logik. Talk “Locally definable groups in o-minimal structures”, 8 Dec.
- 2011** Oléron (France). Participation to the conference “Recent Developments in Model Theory”, June 5-11.
- 2011** Paris, École Normale Supérieure. Talk at the seminar “Géométrie et Théorie des Modèles”, May 6.
- 2010** Gödel Centre of the University of Wien, 14-18 June. Invited professor.
- 2010** Oberwolfach. Talk at the workshop “Model Theory: Around Valued Fields and Dependent Theories”, Jan. 3-9.
- 2009** Leuven. 2nd Belgian Math. Soc. - London Math. Soc. Invited talk at the logic session.
- 2009** Durham. Talk at the LMS Symposium “New Directions in the Model Theory of Fields”, July 20-30.
- 2009** Lisbon. Research center CMAF, 10-16 March. Visit and seminar.
- 2007** Perugia. International Meeting UMI - DMV, June 18-22. Invited speaker at the session “model theory and applications”.
- 2006** Leeds. Meeting “Around o-minimality”, March 11-13. Invited talk.
- 2005** Bristol. Invited speaker at the British Logic Colloquium, Sept. 1-3.
- 2005** Lyon. Invited speaker at the “Colloquium on o-minimality”, March 21-23.
- 2005** Pisa. Coorganizer of the XXII Incontro AILA, 10-13 Feb.
- 2004** Torino. Plenary speaker at the Logic Colloquium 2004.
- 2004** Oberwolfach. Participation to the workshop “Model Theory and Complex Analytic Geometry”, July 18-24.
- 2004** Pisa. Contributed talk at the meeting: “Models of Arithmetic and Analysis”, June 25-26. Title: Definable groups in o-minimal structures”.
- 2004** Banff Centre, Alberta. Tutorial on o-minimality at the BIRS Workshop “Interactions between model theory and geometry”, March 13-18.

- 2003** Udine. Talk on “On the field of real numbers with the exponential function”, 12 Dec.
- 2003** Paris. Talk on “Effective o-minimality of the real exponential field and related structures” within the “Séminaire général de Logique”, 23 June.
- 2003** Lyon, Claude Bernard University Lyon 1. Talk on “Effective o-minimality of the real exponential field 12 June 2003.
- 2003** Paris, Participation to the “Rencontre Internationale de Théorie des Modèles”, Institut Henri Poincaré, June 6-7.
- 2003** Cesenatico. Talk on “Assiomatica della Geometria Elementare e dei Numeri Reali”, XIX Edizione nazionale delle Olimpiadi di matematica, May 9-11.
- 2002** Ravello (Italy). Participation to the “Euro-Conference in Model Theory and Applications”, May 27 - June 1.
- 2001** Pontignano (Siena, Italy). XXI meeting of Mathematical Logic, 30 Oct.-3 Nov. 2001. Contributed talk on “Some results and problems on definable sets in o-minimal structures”.
- 2001** Viareggio, 18° Convegno sulla didattica della matematica, Collegio Colombo, 6-7-8 Sept. Conference on “Questioni di decidibilità nell’ambito della geometria elementare”.
- 2000** 6th Barcellona logic meeting, July 5–8. Talk on “o-minimal fundamental group, homology, and manifolds”.
- 1999** 5th Barcellona logic meeting, June 16-19. Talk on “Intersection theory for o-minimal manifolds”.
- 1999** Udine, XIX Incontro di Logica, 6-9 Oct. Conference on: “Euler characteristic of o-minimal manifolds and groups”.
- 1998 (Jan. - June)** Berkeley. On leave at the “Mathematical Science Research Institute”. Special semester in model theory. Talk on “Factorization in transfinite power series”, Feb. 1998.
- 1997** Perugia. Contributed talk at the GNSAGA meeting, Nov. 6–8.
- 1996** Donostia-San Sebastian. Tutorial on Models of Arithmetics at the Logic colloquium’96, July 9-15.
- 1995** Firenze. Contributed talk at the “10-th International Congress of Logic, Methodology and Philosophy of Science”, Aug. 1995.

- 1994-95** Siena. Doctorate course on lambda calculus at the Department of Mathematics.
- 1994** Copenhagen. Cycle of lectures on lambda calculus at the Summer School “Folli” of the European community, Aug. 1994.
- 1994** Wien. Conference at the meeting “Proof Theory, Complexity, Metamathematics”, April 5-8.
- 1993** Keele, England. Logic Colloquium (ASL), July 20 - 29. Contributed Talk.
- 1991 (Sept. - Dec.)** Oxford, Department of Mathematics. Invitation by A. Wilkie.
- 1991** Amsterdam. Talk at the Department of Mathematics, Jan 23. Invitation by D. De Jongh.
- 1990** Cortona. Invited lectures at the INDAM meeting “Metodi effettivi in algebra e logica”, Oct. 8–12.
- 1990** Luminy, Marseille. Talk at the CIRM Conference “Logic and Computer Science”, June 25-29.
- 1990** San Diego, California. Talk at the Workshop on “Proof Theory, Arithmetic and Complexity”. June 18–22.
- 1990 (Jan.-Mar.)** Oxford, Department of Mathematics. Invitation by A. Macintyre.
- 1989** Roma. Dipartimento di Matematica G. Castelnuovo. Invitation by C. Bernardi. Talk Dec. 7.
- 1989** Kosice. Talk at the Conference “Foundations of Logic and Computer Science”. Sept. 4–6.
- 1989** Berlin. ASL Logic Colloquium, July 25 – Aug 1. Contributed talk.

Doctoral and postdoctoral students

T. Servi (doct. Scuola Normale Superiore 2007), A. Fornasiero (postdoc Pisa 2003-07), A. Conversano (doct. Siena 2009), M. Mamino (doct. SNS 2010), V. Mantova (doct. SNS 2013), D. Pitteloud (postdoctoral work 1998-99).

Publications

- [47] A. Berarducci and V. Mantova. *Transseries as germs of surreal functions*. Transactions of the American Mathematical Society, 751 (5):

- 3549-3592 (2019) doi:10.1090/tran/7428, <http://arxiv.org/abs/1703.01995>
- [46] A. Berarducci and V. Mantova. *Surreal numbers, derivations and transseries*. Journal of the European Mathematical Society, 20: 339-390 (2018). doi:10.4171/JEMS/769 <http://arxiv.org/abs/1503.00315>
- [45] A. Berarducci, P. Ehrlich, S. Kuhlmann. *Mini-Workshop: Surreal Numbers, Surreal Analysis, Hahn Fields and Derivations, Report 60/2016*. Introduction by the organizers. Oberwolfach Reports, 13 (4): 3313-3372 (2017). doi:10.4171/OWR/2016/60
- [44] A. Berarducci and C. Toffalori. *Le direzioni della logica in italia: la teoria dei modelli*. In H. Hosni, G. Lolli; C. Toffalori, eds., *Le Direzioni della Ricerca Logica in Italia*, 43-83. Scuola Normale Superiore, Pisa, crm series edn. (2015).
- [43] A. Berarducci and M. Mamino. *Groups definable in two orthogonal sorts*. Israel Journal of Mathematics, 208(1): 413-441 (2015). doi:10.1007/s11856-015-1205-5 arXiv:1304.1380, 1–18 (2013)
- [42] E. Baro and A. Berarducci. *Topology of definable abelian groups in o-minimal structures*. Bulletin of the London Mathematical Society, 44(3):473–479 (2012). doi:10.1112/blms/bdr108
- [41] A. Berarducci, M. J. Edmundo, and M. Mamino. *Discrete subgroups of locally definable groups*. Selecta Mathematica, 19(3): 719-736 (2013). doi:10.1007/s00029-013-0123-9
- [40] A. Berarducci, P. Majer, and M. Novaga. *Infinite paths and cliques in random graphs*. Fundamenta Mathematicae, 216(2):163–191 (2012). doi:10.4064/fm216-2-6
- [39] A. Berarducci. *La verità matematica da Kant a Gödel*. In I. Gabbani, editor, *Matematica, cultura e società' 2007-2008*, 231–254. Scuola Normale Superiore, Pisa, crm series edn. (2011). ISBN 978-88-7642-382-6
- [38] A. Berarducci and M. Mamino. *On the homotopy type of definable groups in an o-minimal structure*. Journal of the London Mathematical Society, 83(3):563–586 (2011). doi:10.1112/jlms/jdq080
- [37] A. Berarducci, M. Mamino, and M. Otero. *Higher homotopy of groups definable in o-minimal structures*. Israel Journal of Mathematics, 180(1):143–161 (2010). doi:10.1007/s11856-010-0098-6

- [36] A. Berarducci, Y. Peterzil, and A. Pillay. *Group covers, o-minimality, and categoricity*. *Confluentes Mathematici*, 02(04):473–496 (2010). doi:10.1142/S1793744210000259
- [35] A. Berarducci. *Cohomology of groups in o-minimal structures: acyclicity of the infinitesimal subgroup*. *Journal of Symbolic Logic*, 74(3):891–900 (2009). doi:10.2178/jsl/1245158089
- [34] A. Berarducci, D. Dikranjan, and J. Pelant. *Products of straight spaces*. *Topology and its Applications*, 156(7):1422–1437 (2009). doi:10.1016/j.topol.2008.12.024
- [33] A. Berarducci and A. Fornasiero. *O-Minimal cohomology: Finiteness and invariance results*. *Journal of Mathematical Logic*, 09(02):167–182 (2009). doi:10.1142/S0219061309000859
- [32] A. Berarducci. *O-minimal spectra, infinitesimal subgroups and cohomology*. *Journal of Symbolic Logic*, 72(4):1177–1193 (2007). doi:10.2178/jsl/1203350779
- [31] A. Berarducci, M. J. Edmundo, and M. Otero. *Corrigendum to: Transfer methods for o-minimal topology*. *Journal of Symbolic Logic*, 72(3):1079–1080 (2007). doi:10.2178/jsl/1191333858
- [30] A. Berarducci, D. Dikranjan, and J. Pelant. *Local connectedness and extension of uniformly continuous functions*. *Topology and its Applications*, 153(17):3355–3371 (2006). doi:10.1016/j.topol.2005.04.016
- [29] A. Berarducci. *Zero-groups and maximal tori*. In D. Z. EDITORS A. ANDRETTA, K. KEARNES, editor, *Lecture Notes in Logic, 29 Logic Colloquium 2004*, 33–45 (2005). ISBN 9780521884242
- [28] A. Berarducci, D. Dikranjan, and J. Pelant. *An additivity theorem for uniformly continuous functions*. *Topology and its Applications*, 146–147:339–352 (2005). doi:10.1016/j.topol.2003.05.007
- [27] A. Berarducci, M. Otero, Y. Peterzil, and A. Pillay. *A descending chain condition for groups definable in o-minimal structures*. *Annals of Pure and Applied Logic*, 134(2-3):303–313 (2005). doi:10.1016/j.apal.2005.01.002
- [26] A. Berarducci and M. Otero. *An additive measure in o-minimal expansions of fields*. *The Quarterly Journal of Mathematics*, 55(4):411–419 (2004). doi:10.1093/qmath/hah010
- [25] A. Berarducci and T. Servi. *An effective version of Wilkie’s theorem of the complement and some effective o-minimality re-*

- sults*. *Annals of Pure and Applied Logic*, 125(1-3):43–74 (2004). doi:10.1016/j.apal.2003.08.001
- [24] A. Berarducci and M. Otero. *Transfer methods for o-minimal topology*. *Journal of Symbolic Logic*, 68(3):785–794 (2003). doi:10.2178/jsl/1058448438
- [23] A. Berarducci, D. Dikranjan, and J. Pelant. *Functions with distant fibers and uniform continuity*. *Topology and its Applications*, 121(1-2):3–23 (2002). doi:10.1016/S0166-8641(01)00105-5
- [22] A. Berarducci, D. Dikranjan, and J. Pelant. *Uniform quasi components, thin spaces and compact separation*. *Topology and its Applications*, 122(1-2):51–64 (2002). doi:10.1016/S0166-8641(01)00132-8
- [21] A. Berarducci and M. Otero. *o-Minimal Fundamental Group, Homology and Manifolds*. *Journal of the London Mathematical Society*, 65(2):257–270 (2002). doi:10.1112/S0024610701003015
- [20] A. Berarducci and C. Böhm. *Rewriting Techniques and Applications*, vol. 2051 of *Lecture Notes in Computer Science*. Springer Berlin Heidelberg, Berlin, Heidelberg (2001). ISBN 978-3-540-42117-7, 15–30 . doi:10.1007/3-540-45127-7
- [19] A. Berarducci and M. Otero. *Intersection theory for o-minimal manifolds*. *Annals of Pure and Applied Logic*, 107(1-3):87–119 (2001). doi:10.1016/S0168-0072(00)00027-0
- [18] A. Berarducci. *Factorization in generalized power series*. *Transactions of the American Mathematical Society*, 352(2):553–577 (1999). doi:10.1090/S0002-9947-99-02172-8
- [17] A. Berarducci and M. Dezani-Ciancaglini. *Infinite λ -calculus and types*. *Theoretical Computer Science*, 212(1-2):29–75 (1999). doi:10.1016/S0304-3975(98)00135-2
- [16] A. Berarducci and B. Intrigila. *Linear recursive relations are Δ_0 -definable*. In A. CANTINI, E. CASARI, and P. MINARI, editors, *Logic and foundations of mathematics*, 67–81. Kluwer Academic Publisher (1999). ISBN 9780792356592
- [15] A. Berarducci, D. Dikranjan, M. Forti, and S. Watson. *Cardinal invariants and independence results in the poset of precompact group topologies*. *Journal of Pure and Applied Algebra*, 126(1-3):19–49 (1998). doi:10.1016/S0022-4049(96)00149-1

- [14] A. Berarducci. *Infinite lambda-calculus and non-sensible models*. In A. Ursini and P. Aglianò, editors, *LOGIC AND ALGEBRA, Lecture Notes in Pure and Applied Mathematics Series/180*, 339–378. Marcel Dekker, Inc. (1996). ISBN 9780824796068
- [13] A. Berarducci and B. Intrigila. *Church-Rosser lambda-theories, Infinite lambda-terms and consistency problems*. In W. Hodges, M. Hyland, C. Steinhorn, and J. Truss, editors, *Logic: from Foundations to Applications*, chap. 2, 33–58 (1996). ISBN 0 19 853862 6
- [12] A. Berarducci and M. Otero. *A Recursive Nonstandard Model of Normal Open Induction*. *The Journal of Symbolic Logic*, 61(4):1228–1241 (1996)
- [11] A. Berarducci and P. D’Aquino. Δ_0 -complexity of the relation $y = \Pi_{i \leq n} F(i)$. *Annals of Pure and Applied Logic*, 75(1-2):49–56 (1995). doi:10.1016/0168-0072(94)00055-8
- [10] A. Berarducci and C. Böhm. *A self interpreter of lambda-calculus having a normal form*. In E. Börger, G. Jäger, H. Kleine Büning, S. Martini, and M. M. Richter, editors, *Computer Science Logic: 6th Workshop, CSL’92, San Miniato, Italy, September 28 - October 2, 1992. Selected Papers*, vol. 702 of *Lecture Notes in Computer Science*, 85–99. Springer Berlin Heidelberg, Berlin, Heidelberg (1993). ISBN 978-3-540-56992-3. doi:10.1007/3-540-56992-8
- [9] A. Berarducci and D. Dikranjan. *Uniformly approachable functions and spaces*. *Rendiconti dell’Istituto di Matematica dell’Università di Trieste. An International Journal of Mathematics*, 25:23–53 (1993)
- [8] A. Berarducci and B. Intrigila. *On the cop number of a graph*. *Advances in Applied Mathematics*, 14:389–403 (1993). doi:10.1006/aama.1993.1019
- [7] A. Berarducci and B. Intrigila. *Some new results on easy lambda-terms*. *Theoretical Computer Science*, 121(1-2):71–88 (1993). doi:10.1016/0304-3975(93)90084-7
- [6] A. Berarducci and R. Verbrugge. *On the provability logic of bounded arithmetic*. *Annals of Pure and Applied Logic*, 61(1-2):75–93 (1993). doi:10.1016/0168-0072(93)90199-N
- [5] A. Berarducci and M. V. Zilli. *Generalizations of Unification*. *Journal of Symbolic Computation*, 16(5):479–491 (1993). doi:10.1006/jSCO.1993.1059

- [4] A. Berarducci and B. Intrigila. *Combinatorial principles in elementary number theory*. Annals of Pure and Applied Logic, 55(1):35–50 (1991). doi:10.1016/0168-0072(91)90096-5
- [3] A. Berarducci. *The Interpretability Logic of Peano Arithmetic*. Journal of Symbolic Logic, 55(3):1059–1089 (1990)
- [2] A. Berarducci. Σ_0^n -interpretations of modal logic. Bollettino U.M.I., 7(3-A):177–184 (1989)
- [1] C. Böhm and A. Berarducci. *Automatic synthesis of typed Λ -programs on term algebras*. Theoretical Computer Science, 39:135–154 (1985). doi:10.1016/0304-3975(85)90135-5