Verónica Becher

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Address

Professor Verónica Becher
Departamento de Computación, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires
Pabellón 0, Ciudad Universitaria. C1428EGA Buenos Aires, Argentina
Email: `vbecher@dc.uba.ar`
URL: `http://staff.dc.uba.ar/becher`

Current Positions

Full Professor at Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires
(Profesora Titular Plenaria)

Principal Researcher at Consejo Nacional Investigaciones Científicas y Técnicas (Investigadora Principal),
Instituto de Ciencias de la Computación

Team Leader in the International Research Program SINFIN (formerly Laboratoire International INFINIS),
Université de Paris, CNRS, UBA and CONICET.

Director of Kapow research group, Departamento de Computación, Facultad de Ciencias Exactas y Naturales,
Universidad de Buenos Aires and Instituto de Ciencias de la Computación (ICC), CONICET.

Categoría I del Programa de Incentivos a Docentes Investigadores, Ministerio de Educación de la Nación
Argentina de la Nación Argentina.

Area of Specialization

Discrete Mathematics and Theoretical Computer Science:
randomness, normal numbers, combinatorial problems on words.

Orcid `https://orcid.org/0000-0002-5425-8563`

Wikipedia `https://en.wikipedia.org/wiki/Ver%C3%B3nica_Becher`

Ërdos number: 3

Education

Licenciatura en Ciencias de la Computación, Universidad de Buenos Aires, 1990.

MSc. in Computer Science, University of British Columbia, Vancouver, Canada, 1993.

PhD. in Computer Science, Universidad de Buenos Aires, 1999.

Postdoctoral Fellowship CONICET, 2000.

Visiting Researcher

- Visiting researcher Institure for Financial Mathematics and Applied Number Theory. Joannes Kepler Universität, Linz, Austria. As part of the Quasi-Monte Carlo Methods: Theory and Applications. FWF Austrian Science Fund, Special Research Program (SFB), Janaury 2023.

- Chercheuse/Professeure invitée, Institut de Recherche en Informatique Fondamentale (IRIF), Université Paris Cité-CNRS, regular visits since 2002 (Université Paris 7, Université Paris-Diderot).

- Visiting Researcher Erwin Schrödinger International Institute for Mathematics and Physics (ESI), University of Vienna, November 11- December 17, 2016.

- Visiting Researcher Institute for Mathematical Sciences, National University of Singapore, June 2014.

- Visiting Researcher, Institut de Recherche Mathématique Avancée, Université de Strasbourg, July 2013; June 2017.

- Visiting Fellow Isaac Newton Institute for Mathematical Sciences, Cambridge UK, June 2012.

- Chercheuseétranger de la Mairie de Paris en qualité de senior CNRS et Université Paris 7, Laboratoire d'Informatique Algorithmique: Fondements et Applications etÉquipe de Logique Mathématique , November 2008 to February 2009.

- Visiting Researcher Department of Mathematics and Computer Science, University of Victoria, Wellington, New Zealand, invited by Rod Downey, November 2004.

- Invited Professor Department of Logic and Philosophy of Language, Universidad de Sevilla, España, to give the course "Information and randomness", January 2002.

- Visiting Researcher IBM Thomas Watson Research Center, New York, USA, to work with Gregory Chaitin, December 1999 and December 2000.

Main International Scientific Responsibilities

- Associate Editor Journal of Complexity, since 2024.

- Editor of Journal of Combinatorics and Number Theory, since 2021.

- Editor Ediciones Exactas, since 2024.

- Editor of the Journal of Symbolic Logic (Association for Symbolic Logic), 2018 to 2024.

- Associate Editor of Journal of Logic, Language and Information (Kluwer/Springer), 2005 to 2009.

- Division of Logic, Methodology and Philosophy of Science and Technology (DLMPS) of the International Union of History and Philosophy of Science, Council member 2016-2019. Vice president 2020-2023.

- Association for Symbolic Logic Executive Committee 2014-2017.
  Council Member 2008-2010; 2014-2017.
  Chair of Committee on Translations, 2008-2010, 2011-2013, 2014-2015.
  Committee Latin America 2022-2024
  Committee of Nominations 2024.
  Awards Committee 2025.

- Committee ECOS Argentina-France, responsible for the exact sciences, 2010-2012.

- Responsible for the Argentine side of the agreement on scientific cooperation between Université Paris Diderot and Universidad de Buenos Aires, approved November 2003.

- Steering Commitee Computability Complexity and Randomness (CCR) 2004-2025.

- Steering Commitee Computability in Europe (CiE) 2022-2026.

- Program Committee WoLLIC 2012; LSFA 2012, 2015, 2017 CCR 2008, 2009, 2014, 2018; CiE 2015; SLALM 2017, CLMPST 2019, CCA 2019, CiE 2020, CiE2022, RP2023, Numeration 2024, LATIN 2025, CiE2026, EBL 2026.

- Reviewer for Scientific organizations:

  Agencia Nacional de Promoción Científica de Argentina (ANPCyT) Agencia Nacional de Investigación e Innovación de Uruguay (ANII), American University of Beirut (AUB), Austrian Science Fund, Israel Science Foundation, National Security Agency USA (NSA), National Science Foundation USA (NSF), National Science Center Poland CONICET Argentina Korea Advanced Institute of Science and Technology (KAIST)

- Phd Thesis committee: Department of Mathematics, Facultad de Ciencias Exactas y Naturales, University of Buenos Aires (2029); IRIF, Université de Paris (2021).
  Rapporteur de Thèse: Université de Lorraine, France (2025).

- Jurado Concurso Dirección Centro de Simulación Computacional para Aplicaciones Tecnológicas (CSC-CONICET) (2020).

- Reviewer for international journals ACM Transaction in Computation Theory Acta Arithmetica, Acta Matematica Scentia, Advances in Mathematics, American Mathematical Monthly, Annals of Combinatorics, Chaos, Solitons & Fractals', Discrete Mathematics, Entropy, Information Processing Letters, Information and Computation, IEEE Access, IEEE Transactions on Information Theory, IEEE Transactions Latinamerica, INtegers, Journal de Théorie des Nombres de Bordeaux. Journal of Complexity, Journal of Computer Sytem and Sciences, Journal of Symbolic Logic, Journal de Théorie des Nombres de Bordeaux, Mathematics of Computation (American Mathematical Society), Journal of Integer sequences, Mathematical Review (American Mathematical Society), Mathematical Logic Quarterly, Monatshefte für Mathematik, Nonlinearity, Notre Dame Journal of Formal Logic, Transactions of Computational Logic, Theoretical Computer Science, Theory of Computing Systems, Transactions on Computational Logic; Uniform Distribution Theory, Union Matemática Argentina. Conferences STACS (Symposium on Theoretical Aspects of Computer Science), WoLLIC, ICALP, LICS (Logic in Computer Science), STOC, among others.

Main Argentine Scientific Responsibilities

- Consejera Directiva Titular, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, March 2018-August 2022.

- Associate Head (Co-directora) of Departamento Computación Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, October 2014-2016.

- Comité Editorial de Ediciones Exactas desde 2023.

- Consejera Académica Suplente CELFI-Datos (Centro Latinoamericano Formación Interdisciplinaria) 2015 -2018.

- Vocal Titular del Consejo de Administración, Fundación Sadosky, 2016-2020.

- Comisión Técnica Asesora Ciencias Básicas y Biológicas (CTA4), Universidad de Buenos Aires (UBA) 2005-2006, 2010-2012. Ciencias Físicas, Químicas y Matemáticas, UBA (CTA1), 2003, 2004.

- Miembro Comisión Ad-Hoc FCEyN, 2011-2013 (titular), 2010 (suplente).

- Scientific Assessment Ministry of Science, Technology and Innovation, July 2008-July 2009.

- Miembro CONICET Comisión de Informática, 2007- 2008.

- Miembro Comisión Becas de Informática CONICET, 2015-2016.

- UBA, FCEyN, Fellowships Committee 2003.

- FONCyT Evaluation Committees (2001, 2002, 2003), FONTAR (2002).

Publications

Journal Articles

[1]   V. Becher, S. Lew Deveali, and Ignacio Mollo Cunningham. "Automata for the commutative closure of regular sets". In: *Journal of Computer and System Sciences* 158.103762 (2026).

[2]   N. Álvarez, V. Becher, E. Cesaratto, M. Mereb, Y. Peres, and B. Weiss. "Poisson genericity in numeration systems with exponentially mixing probabilities". In: *Transactions of American Mathematical Society* https://doi.org/10.1090/tran/9592 (2025).

[3]   Verónica Becher, Olivier Carton, and Santiago Figueira. "Rauzy complexity and block entropy". In: *Information and Computation* 306.105330 (2025).

[4]   Verónica Becher, Stephen Jackson, Dominik Kwietniak, and Bill Mance. "The descriptive complexity of the set of Poisson generic numbers". In: *Journal of Mathematical Logic* 25:2.2450019 (2025).

[5]   Verónica Becher and Nicole Graus. "The discrepancy of the Champernowne constant". In: *American Mathematical Monthly* 133.2 (2026), pp. 152–170.

[6]   Nicolás Álvarez, Verónica Becher, Martín Mereb, Ivo Pajor, and Carlos M. Soto. "De Bruijn sequences with minimum discrepancy". In: *Mathematics of Computation* https://doi.org/10.1090/mcom/4200 (2026).

[7]   Verónica Becher and Tomás Tropea. "Lyndon pairs and the lexicographically greatest perfect necklace". In: *Combinatorics and Number Theory* 13.4 (2024), pp. 361–375.

[8]   Nicolás Álvarez, Verónica Becher, Martín Mereb, Ivo Pajor, and Carlos M. Soto. "On extremal factors of de Bruijn-like graphs". In: *Discrete Applied Mathematics* 357 (2024), pp. 352–364.

[9]   Verónica Becher and Olivier Carton. "Nested perfect arrays". In: *IEEE Transactions on Information Theory* 70.10 (2024), pp. 7463–7471.

[10] Verónica Becher, Agustín Marchionna, and Gérald Tenenbaum. "On simply normal numbers with digit dependencies". In: *Mathematika* 69.4 (2023), pp. 988–991.

[11] Verónica Becher and Gabriel Sac Himelfarb. "A construction of a λ-Poisson generic sequence". In: *Mathematics of Computation* 92 (2023), pp. 1453–1466.

[12] Nicolás Álvarez, Verónica Becher, and Martín Mereb. "Poisson generic sequences". In: *International Mathematics Research Notices* 2023.24 (2022), pp. 20970–20987.

[13] Verónica Becher. "Insertion in constructed normal numbers". In: *Uniform Distribution Theory* 17.1 (2022), pp. 55–76.

[14] Verónica Becher and Manfred Madritsch. "On a question of Mendès France on normal numbers". In: *Acta Arithmetica* 203 (2022), pp. 271–288.

[15] Verónica Becher and Eda Cesaratto. "On the number of words with restrictions on the number of symbols". In: *Advances in Applied Mathematics* 136.102321 (2022).

[16] Verónica Becher and Serge Grigorieff. "Randomness and uniform distribution modulo one". In: *Information and Computation* 285 Part B.104857 (2022).

[17] Verónica Becher and Lucas Cortés. "Extending de Bruijn sequences to larger alphabets". In: *Information Processing Letters* 168.106085 (2021).

[18] Emilio Almansi and Verónica Becher. "Completely uniformly distributed sequences based on de Bruijn sequences". In: *Mathematics of Computation* 89 (2020), pp. 2537–2551.

[19] Verónica Becher, Olivier Carton, and Ignacio Mollo Cunningham. "Low discrepancy sequences failing Poissonian pair correlations". In: *Archiv der Mathematik* 113.2 (2019), pp. 169–178.

[20] Christoph Aistleitner, Verónica Becher, and Olivier Carton. "Normal numbers with digit dependencies". In: *Transactions of American Mathematical Society* 372.6 (2019), pp. 4425–4446.

[21] Verónica Becher and Olivier Carton. "Normal numbers and nested perfect necklaces". In: *Journal of Complexity* 59.101403 (2019).

[22] Nicolás Alvarez, Verónica Becher, and Olivier Carton. "Finite-state independence and normal sequences". In: *Journal of Computer Systems and Science* 103 (2019), pp. 1–19.

[23] Verónica Becher and Sergio Yuhjtman. "On absolutely normal and continued fraction normal numbers". In: *International Mathematics Research Notices* 19 (2019), pp. 6136–6161.

[24] Verónica Becher, Jan Reimann, and Theodore Slaman. "Irrationality Exponent, Hausdorff Dimension and Effectivization". In: *Monatshefte für Mathematik* 185.2 (2018), pp. 167–188.

[25] Verónica Becher, Olivier Carton, and Pablo A. Heiber. "Finite-state independence". In: *Theory of Computing Systems* 62.7 (2018), pp. 1555–1572.

[26] Christoph Aistleitner, Verónica Becher, Adrian-Maria Scheerer, and Theodore Slaman. "On the construction of absolutely normal numbers". In: *Acta Arithmetica* 180.4 (2017), pp. 333–346.

[27] Nicolás Alvarez and Verónica Becher. "M. Levin's construction of absolutely normal numbers with very low discrepancy". In: *Mathematics of Computation* 86.308 (2017), pp. 2927–2946.

[28] Verónica Becher, Yann Bugeaud, and Theodore Slaman. "On Simply Normal Numbers". In: *Mathematische Annalen* 364.1 (2016), pp. 125–150.

[29] Pablo Turjanski, Gonzalo Parra, Rocío Espada, Verónica Becher, and Diego Ferreiro. "Protein repeats from first principles". In: *Scientific Reports* 6.23959 (2016). URL: http://www.nature.com/articles/srep23959.

[30] Nicolás Alvarez, Verónica Becher, Pablo Ferrari, and Sergio Yuhjtman. "Perfect necklaces". In: *Advances in Applied Mathematics* 80 (2016), pp. 48–61.

[31] Verónica Becher, Yann Bugeaud, and Theodore Slaman. "The irrationality exponents of computable numbers". In: *Proceedings of American Mathematical Society* 144 (2016), pp. 1509–1521.

[32] Verónica Becher, Pablo A. Heiber, and Theodore Slaman. "A computable absolutely normal Liouville number". In: *Mathematics of Computation* 84.294 (2015), pp. 2939–2952.

[33] Verónica Becher, Pablo A. Heiber, and Olivier Carton. "Normality and Automata". In: *Journal of Computer and System Sciences* 81 (2015), pp. 1592–1613.

[34] Verónica Becher and Serge Grigorieff. "Borel and Hausdorff Hierarchies in Topological Spaces of Choquet Games and Their Effectivization". In: *Mathematical Structures in Computer Science* 25.6 (2015), pp. 1490–1519.

[35] Verónica Becher and Serge Grigorieff. "Wadge hardness in Scott spaces and its effectivization". In: *Mathematical Structures in Computer Science* 25.6 (2015), pp. 1520–1545.

[36] Verónica Becher and Theodore Slaman. "On the Normality of Numbers to Different Bases". In: *Journal of the London Mathematical Society* 90.2 (2014), pp. 472–494.

[37] Verónica Becher, Pablo Ariel Heiber, and Theodore Slaman. "Normal Numbers and the Borel Hierarchy". In: *Fundamenta Mathematicae* 226 (2014), pp. 63–77.

[38] Verónica Becher and Pablo Ariel Heiber. "Normal numbers and finite automata." In: *Theoretical Computer Science* 477 (2013), pp. 109–116.

[39] Verónica Becher, Pablo Ariel Heiber, and Theodore A. Slaman. "A polynomial-time algorithm for computing absolutely normal numbers". In: *Information and Computation* 232.0 (2013), pp. 1–9.

[40]   Pablo Barenbaum, Verónica Becher, Alejandro Deymonnaz, Melisa Halsband, and Pablo Ariel Heiber. "Efficient repeat finding in sets of strings via suffix arrays". In: *Discrete Mathematics and Theoretical Computer Science* 15.2 (2013), pp. 59–70.

[41]   H. Dopazo F. Serra Verónica Becher. "Neutral theory predicts the relative abundance and diversity of genetic elements in a broad array of eukaryotic genomes". In: *Plos One* 8.6 (2013), e63915.

[42]   Verónica Becher and Pablo Ariel Heiber. "A linearly computable measure of string complexity". In: *Theoretical Computer Science* 438 (2012), pp. 62–73.

[43]   Veronica Becher, Laurent Bienvenu, Rodney Downey, and Elvira Mayordomo. "Computability, Complexity and Randomness (Dagstuhl Seminar 12021)". In: *Dagstuhl Reports* 2.1 (2012). Ed. by Veronica Becher, Laurent Bienvenu, Rodney Downey, and Elvira Mayordomo, pp. 19–38. ISSN: 2192-5283.

[44]   Verónica Becher and Pablo Ariel Heiber. "On extending de Bruijn sequences". In: *Information Processing Letters* 111.18 (2011), pp. 930–932.

[45]   Verónica Becher, Alejandro Deymonnaz, and Pablo Ariel Heiber. "Efficient computation of all perfect repeats in genomic sequences of up to half a gigabyte, with a case study on the human genome". In: *Bioinformatics* 25.14 (2009), pp. 1746–1753.

[46]   Verónica Becher and Serge Grigorieff. "From index sets to randomness in $\emptyset^n$: random reals and possibly infinite computations. Part II". In: *Journal Symbolic Logic* 74.1 (2009), pp. 124–156.

[47]   Verónica Becher and Serge Grigorieff. "Random reals à la Chaitin with or without prefix-freeness". In: *Theoretical Computer Science* 385.1-3 (2007), pp. 193–201.

[48]   Verónica Becher, Santiago Figueira, and Rafael Picchi. "Turing's unpublished algorithm for normal numbers". In: *Theoretical Computer Science* 377.1-3 (2007), pp. 126–138.

[49]   Verónica Becher, Santiago Figueira, Serge Grigorieff, and Joseph S. Miller. "Randomness and halting probabilities". In: *Journal Symbolic Logic* 71.4 (2006), pp. 1411–1430.

[50]   Verónica Becher, Santiago Figueira, André Nies, and Silvana Picchi. "Program Size Complexity for Possibly Infinite Computations". In: *Notre Dame Journal of Formal Logic* 46.1 (2005), pp. 51–64.

[51]   Verónica Becher and Serge Grigorieff. "Recursion and topology on finite and infinite words for possibly infinite computations". In: *Theoretical Computer Science* 322.1 (2004), pp. 85–136.

[52]   Verónica Becher and Santiago ra. "Kolmogorov Complexity for Possibly Infinite Computations". In: *Journal of Logic, Language and Information* 14.2 (2005), pp. 133–148.

[53]   Verónica Becher and Serge Grigorieff. "Random Reals and Possibly Infinite Computations. Part I: Randomness $\emptyset'$ of the Halting Problem". In: *Journal Symbolic Logic* 70.3 (2005), pp. 891–913.

[54]   Verónica Becher and Santiago Figueira. "An example of a computable absolutely normal number". In: *Theoretical Computer Science* 270.1-2 (2002), pp. 947–958.

[55]   Verónica Becher and Gregory J. Chaitin. "Another Example of Higher Order Randomness". In: *Fundamenta Informaticae* 51.4 (2002), pp. 325–338.

[56]   Craig Boutilier and Verónica Becher. "Abduction as Belief Revision". In: *Artificial Intelligence* 77.1 (1995), pp. 43–94.

Book Chapters and In Collections

[57]   Verónica Becher and Olivier Carton. "Normal numbers and computer science". In: *Sequences, Groups, and Number Theory*. Ed. by Valérie Bertheé and Michel Rigó. Trends in Mathematics Series. Birkhauser/Springer, 2018, pp. 233–269.

[58]   Verónica Becher. "Turing's Note on Normal Numbers". In: *Alan Turing - His Work and Impact*. Ed. by S Barry Cooper and Jan van Leeuwen. First Edition. Elsevier Science, 2012. Chap. Part 1, Chapter 10, pp. 408–411.

[59]   Verónica Becher. "Turing's Normal Numbers: Towards Randomness". In: *How the world computes - Turing Centenary Conference CiE 2012*. Ed. by S.B. Cooper, A. Dawar, and B. Löwe. Lecture Notes in Computer Science 7318. Cambridge UK, 2012, pp. 35–45.

[60]   Verónica Becher, Sergio Daicz, and Gregory Chaitin. "Combinatorics, computability and logic. Proceedings of the 3rd international conference, DMTCS '01". In: ed. by C. S. Calude, M.J. Dinneen, and S. Sburlan. Discrete Mathematics and Theoretical Computer Science. Constanţa, Romania: London: Springer, 2001. Chap. A Highly Random Number, pp. 55–68.

[61] Carlos Areces and Verónica Becher. "Iterable AGM functions". In: *Frontiers in belief revision*. Ed. by M.A. Williams and Hans Rott. Applied Logic Series 22. Dordrecht: Kluwer Academic Publishers, 2001, pp. 261–277.

[62] Carlos Areces, Verónica Becher, and Sebastián Ferro. "Characterization results for d-Horn formulas or on formulas that are true on dual reduced products". In: *Logic Language and Computation*. Ed. by J. Seligman, N. Braisby, P. Blackburn, L. Cavedon, and A. Shimojima. Vol. Proceedings of the 3rd international conference on information-theoretic approaches to logic, language, and computation (ITALLC). Hsi-tou, Taiwan- June 16-19. 1998. CSLI Lecture Notes 111. CSLI Publications, 2000, pp. 49–66.

[63] S.Lazzer R.Rodriguez Verónica Becher E.Fermé and C. Oller. "Some Observations on Carlos Alchourrón's Theory of Defeasible Conditionals". In: *Norms Logics and Information Systems*. Ed. by P. Mc Namara and H.Prakken. New Studies on Deontic Logic and Computer Science, IOS Press, 1998, pp. 219–230.

[64] Verónica Becher. "Two Conditional Logics for Defeasible Inference: A Comparison Preliminary Version". In: *Advances in Artificial Intelligence*. Vol. 991. Lecture Notes in Computer Science. 1995, pp. 49–58.

[65] Carlos Areces and Verónica Becher. "Update, the infinite case". In: *Proceedings of the Argentinean Workshop on Theoretical Computer Science*. 28 Jornadas Argentinas de Informática e Investigación Operativa (JAIIO). Buenos Aires, 1999.

[66] Verónica Becher. "Unified Semantics for Revision and Update, or the Theory of Lazy Update". In: *24 Jornadas Argentinas de Informática e Investigación Operativa (JAIIO)*. Buenos Aires: SADIO, 1995.

[67] Verónica Becher. "E-mailboxes: Golem's stomachs or a hippie dream?" In: *In Interdisciplinary Aspects of Human Machine Co-existence and Co-operatiron. Czech-Argentine Workshop "e-Golems"*. Ed. by Verónica Marik, P. Jacovkis, and O. Štěpánková. Czech Technical University in Prague, 2005, pp. 313–322.

[68] Craig Boutilier and Verónica Becher. "Abduction As Belief Revision: A Model of Preferred Explanations". In: *Eleventh National Conference on Artificial Intelligence (AAAI-93)*. 1993, pp. 642–648.

[69] C. Areces and Verónica Becher. "On the Logic For Utopia". In: *Annals of the 1st CACiC*. Bahía Blanca, Argentina, 1995.

[70] "Analytic AGM Revision". In: *Technical Report CDMTCS-138*. Centre for Discrete Mathematics and Theoretical Computer Science, The University of Auckland, 2000.

Translations

Traducción del alemán al español del artículo "Endliche Automaten und Zufallsfolgen", C. P. Schnorr y H. Stimm, Acta Informatica, 1:345–359. Springer-Verlag, 1972. Facundo López Bristot, Beca CIN, 2012.

Traducción del ruso al español del artículo "Normal Periodic Systems and Their Applications to the Estimation of Sums of Fractional Parts", Nikolay Korobov, Proceedings of the Academy of Sciences of the USSR. Mathematical Series, 15:1 (1951), 17–46. Traducción por Verónica Becher y Belén Loleo Saigos, 2026.

Research Supervision

Director of research group **Kapow** (Knowledgeable Algorithms for Problems on Words), Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires

Director of Assistant Researchers CONICET

1. Nicolás Álvarez (CONICET 2022-ongoing)
2. Pablo Turjanski (CONICET 2013-2017)
3. Luciana Ferrer (CONICET 2013- 2016)
4. Agustín Gravano (CONICET 2010-2015)
5. Santiago Figueira (CONICET 2007-2010).

Director of Postdoctoral Researchers

1. Sergio Yuhjtman (ANPCyT 2016-2017)
2. Pablo Turjanski (CONICET 2012-2013)

Director of PhD

1. Simón Lew Deveali, ongoing PhD in Computer Science, FCEyN UBA, since December 2024.

2. Ignacio Mollo Cunningham, " Shuffling automata", ongoing PhD in Mathematics, FCEyN UBA, since October 2022. PICT fellowship, CONICET fellowship. Supervisor: V. Becher.

3. Leopoldo Taravilse. "Extended de Bruijn sequences", UBA, 2017 doctoral fellowship UBACyT. Passed away 22 June 2018..

4. Nicolás Álvarez, "Finite-state randomness", PhD in Computer Science, Universidad Nacional del Sur, 2015-2017. CONICET fellowship. Supervisor: V. Becher, Formally P. Fillotrani (Universidad del Sur).

5. Pablo Ariel Heiber, "Normal numbers from a computational perspective", PhD in Computer Science, FCEyN, UBA, 2014. With CONICET doctoral fellowship Supervidor: V. Becher.

6. Daniel Gorín, "Automated reasoning techniques for hybrid logics", PhD in Computer Science, FCEyN UBA-Université Nancy I (Henri Pointcaré), 2009.
In cotutelle Argentina-France. With CONICET doctoral fellowship. Supervisors: V. Becher (Argentina), Carlos Areces (France).

7. Sergio Mera, "Modal Memory Logics", PhD in Computer Science, FCEyN UBA–Université Nancy I (Henri Pointcaré), 2009. In cotutelle Argentina-France. With CONICET doctoral fellowship. Supervisors: V. Becher (Argentina), Carlos Areces (France).

8. Santiago Figueira, "Aspects of randomness", PhD in Computer Science, Universidad de Buenos Aires, 2006. With CONICET doctoral fellowship 2010-2014. Supervisor: V. Becher.

Supervisor Student Research Fellowships

1. Simón Lew Deveali, January 2026-December 2028, UBA.

2. Tomás Spognardi, October 2024-october 2025.

3. Simón Lew Deveali, BICC 2024.

4. Nicole Graus, October 2023-october 2024.

5. Ignacio Mollo Cunningham, PICT Doctoral Fellowship, 2022-ongoing

6. Carlos Soto, Beca UBACyT, extended, ongoing October 2022-july 2024.

7. Ivo Pajor, Iniciación a la Investigación DC, 2022.

8. Gabriel Sac Himelfarb, CIN 2021-2022.

9. Facundo López Bristot, CIN 2012. Award JAIIO 2013

10. Alejandro Deymonnaz, IBM-BioSidus, 2009-2010.

11. Pablo Ariel Heiber, IBM-BioSidus, 2009-2010. CONICET Doctoral fellowship 2010-2014.

12. Pablo Barenbaum, IBM-BioSidus, 2009-2010.

13. Melisa Halsband, IBM-BioSidus, 2009-2010.

14. José Orlicki, CIN 2006.

Supervisor "Tesis de Licenciatura" Universidad de Buenos Aires (equivalent to MSc. thesis)

1. Miguel Maurizio, ongoing 2026.

2. Camilo Rivas, ongoing 2026.

3. Valeria Arrosio, ongoing 2026.

4. Santiago Plá and Fabrizio Prida, 2026 ongoing.

5. Gastón Máspero, ongoing 2026

6. Carlos Soto, ongoing (Mathematics), 2026.

7. Tomás Spognardi, April 2026.

8. Belén Loleo Saigos, December 2025.

9. Alan Solowieiczyk, Octiber 2025

10. Simón Lew Deveali, 2024

11. Iván Charabora, 2024

12. Valeria Wodka, 2024

13. Tomás Donzis, 2024.

14. Ivo Pajor, 2024.

15. Darío Ocles, 2024.

16. Franco Assenza, 2024. Codirección con S. Figueira.

17. Nicole Grauss (Mathematics), 2023.

18. Agustín Marchionna, 2023.
19. Tomás Tropea, 2023.
20. Gabriel Sac Himelfarb (Mathematics), 2022.
21. Leonardo Cremona, 2021.
22. Nicolás Donatucci, 2021. Cordirección con S. Figueira.
23. Ignacio Mollo Cunningham (Mathematics), 2021.
24. Franco Frizzo, 2020.
25. Ezequiel Zimenspitz , 2020
26. Alejandro Candioti, 2019
27. Lucas Puterman, 2019
28. Pablo Gauna, 2019
29. Emilio Almansi, 2019
30. Natalia Pesaresi, 2019.
31. Gabriel Thibeault Lüthy, 2019.
32. Lucas Cortés, 2018.
33. Elisa Orduna, 2018.
34. Ariel Zylber, 2017.
35. Martin Epszteyn, 2014.
36. Alejandro Alfonso, 2012.
37. Alejandro Deymonnaz, 2012.
38. Leandro Miquet (Biology), 2011.
39. Melisa Halsband, 2010.
40. Lucia Cavatorta, 2009
41. Marcos Foglino, en codirección con Martín Urtasún, 2009.
42. Jose Orlicki, 2006.
43. Rafael Picchi, en codirección con Santiago Figueira, Award Fundación Sadosky.
44. Mariano Moscato, en codirección con Santiago Figueira,2005
45. Martín Urtasún, Alejo Caparelli, 2004. Award Microsoft IDS 2003.
46. Alejandro Dau, 2004.
47. Silvana Bonaccio, Rosana Centrone, 2002
48. Silvana Picchi, 2002.
49. Fernando Calderon, Diego Calderón, Norma Marinaro, 2001.
50. Christian Durr, 2001.
51. Santiago Figueira, 2000.
52. Sergio Daicz, 2000. Award , 3rd position, VIII Concurso de Tesis de Maestria CLEI-UNESCO 2001.
53. María de los Angeles Grieco, 1999.

Organization of Scientific Meetings

1. Uniform Distribution and Dyamical Systems. Institute for Mathematical Sciences, Singapore 07 - 25 February 2028. Organizers: V. Becher (Universidad de Buenos Aires), V. Berthé (Université Paris Cité), W. Daren (University of Singapore), J. Le Go (University of Singapore), Z. Rudnick (University of Tel Aviv), R. Tichy (Technische Universität Graz) .

2. Discrete Mathematics section, Reunión anual de la Unión Matemática Argentina, Catamarca, Argentina, 16-20 september 2024, Organizers: V. Becher and Pablo Neme.

3. Recursion Theory and its Applications. BIRS scientific meeting 23w5039 Institute for Advanced Study in Mathematics (IASM) Hangzhou, China. October 10 to 15, 2023.

4. Equidistribution: Arithmetic, Computational and Probabilistic Aspects. Institute for Mathematical Sciences, National University Singapore, 29 April-May 17, 2019. Organizers: T. Slaman (University California Berkeley) Y. Bugeaud (Université Strasbourg) V. Becher (Universidad de Buenos Aires) and R. Tichy (Technische Universität Graz)

5. International Conference on Computability, Complexity and Randomness 2018, December 2018, Santiago de Chile. Organizers: V. Becher (Universidad de Buenos Aires) and Cristóbal Rojas (Universidad Andres Bello)

6. Computability Session, Logic Colloquium 2017, August 14-20 2017, Stockholm University. Organizers: V. Becher (Universidad de Buenos Aires), D. Hirschfeldt (University of Chicago).

7. Logic and Computer Science Session, Simposio Latinamericano de Lógica Matemática, Puebla, México. June 26-30, 2017 Organizers: V. Becher (Universidad de Buenos Aires), M. Osorio (Benemérita Universidad Autónoma de Puebla).

8. Algorithmic Randomness Programme, Institute of Mathematical Sciences, Singapore. June 2-30, 2014.

9. Buenos Aires Semester in Computability, Complexity and Randomness, January to June 2013. Organizers: V. Becher and S. Figuiera (Universidad de Buenos Aires), N. Greenberg (Victoria University, Wellington, New Zealand), J. Miller (Univesity of Wisconsin, Madison), A. Montalbán and T. Slaman (University of California Berkeley).

10. Logic and Computability Session, Congreso Latinoamericano de Matemática (CLAM), FAMAF, Universidad Nacional de Córdoba, August 6-10 2012. Organizers: V. Becher (Universidad de Buenos Aires), C. Di Prisco (Instituto Venezolano de Investigaciones Científicas, Venezuela) and A. Montalbán (University of California, Berkeley).

11. Dagstuhl Schloss, Seminar 12021 Computability, Complexity and Randomness, January 8-13, 2012. Organizers: V. Becher (Universidad de Buenos Aires), L. Bienvenu (Université Paris Diderot), R. Downey (University of Victoria, Wellington, New Zealand), E. Mayordomo (Universidad de Zaragoza, España),

12. International Conference on Logic, Computability and Randomness, Universidad de Buenos Aires, January 10-13 2007. Organizers: V. Becher (Universidad de Buenos Aires), R. Downey (University of Victoria, Wellington, New Zealand), and D. Hirschfeldt (University of Chicago).

13. International Conference on Logic, Computability and Randomness, FAMAF Universidad Nacional de Córdoba, Argentina, September 20 to 24, 2004. Organizers: V. Becher (Universidad de Buenos Aires), R. Downey (University of Victoria, Wellington, New Zealand), D. Hirschfeldt (University of Chicago).

Selected Talks

2026 **Plenary speaker**. The Computable 90 conference. The National Museum of Computing and the London Mathematical Society, 16-18 September 2026.

2025 A simply normal number with digit dependencies. Talk at Conference "Prime Numbers and Arithmetic Randomness" at CIRM, Marseille, France, June 23-27, 2025.

- Normal numbers with digit dependencies. Talk at Workshop "Uniform distribution of Sequences", at the Erwin Schrödinger Institute in Vienna, Austria, April 22 to 25, 2025.

- **Invited speaker**. Normal numbers and the Borel hierarchy. XXI Brazilian Logic Conference (EBL 2025), San Pablo, May 12-16, 2025.

- Turing's algorithm for computing absolutely normal numbers. Online Seminar in Diophantine Approximation and Related Topics October 2 and 4, 2025.

2024 Perfect necklaces. Workshop EPA! (Entropy and Probabilistic Analysis of Algorithms), October 21-25, 2024, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, slides

- **Invited speaker** Computability and Mathematical Definability, Celebrating the Seventieth Birthday of Theodore Slaman , University of California, Berkeley,October 11-13 , 2024,

- On Korobov's problem on the discrepancy associated to normal numbers. Workshop on Diophantine Approximation, Dynamical Systems and Related Topics Tsinghua Sanya International Mathematics Forum (TSIMF), Sanya, Hainan, China. January 28- February 3,2024.

2023 Perfect Necklaces. Séminaire de l'équipe de Théorie Ergodique et Systèmes Dynamiques L'Institut Galilée, Université Sorbonne Paris Nord. October 11, 2023.

- **Invited speaker**. Normal numbers with digit dependencies. Numeration 2023, May 22-26, Liège, Belgium.

- Perfect necklaces and their discrepancy estimates, Colloquium, Quasi-Monte Carlo Methods: Theory and Applications FWF Austrian Science Fund, Special Research Program (SFB) January 12, 2023, Joannnes Kepler Univesität, Linz, Austria.

2022 Alan Turing's normal numbers. Carnegie Mellon Mathematical Logic seminar. November 29, 2022

- Charla " Aleatoriedad", en materia Probabilidades y Estadística, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, 18 octubre 2022.

- **Invited speaker**. Normal number and perfect necklaces. Special session 70th birthday of Prof. Victor Selivanov. Fourth Workshop on Digitalization and Computable Models (WDCM-2022). Sobolev Institute of Mathematics (Novosibirsk, Russia) and Kazan Federal University (Russia) slides October 29, 2022

- **Invited speaker**. Insertion in normal numbers. International conference on computability, complexity and randomness, SASW09 Isaac Newton Institute form Mathematical Sciences, June 6-10, 2022. slides

- Poison generic real numbers. One World Numeration Seminar, May 31, 2022. slides

- Charla " Tests de aleatoriedad", en materia Probabilidades y Estadística, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, 18 de mayo 2022. .pdf

- **Invited speaker** at Nineteenth International Conference on Computability and Complexity in Analysis (CCA 2022), Poisson generic real numbers, May 23 - 26, 2022

- **Invited speaker**, International conference on computability, complexity and randomness, SASW09 Isaac Newton Institute Mathematical Sciences, nsertion in normal numbers., June 6-10, 2022.

- Invited talk at One World Numeration Seminar, Poisson generic real numbers, May 31, 2022.

- Clase sobre Tests de aleatoriedad, en materia Probabilidades y Estadística, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, 18 de mayo 2022. .pdf

- Invited talk at Number Theory seminar, Tel Aviv University, Poisson generic real numbers, February 24, 2022.

2021 Invited talk Joint Annual Conference of the German Mathematical Society DMV and the Austrian Mathematical Society ÖMG University of Passau, Germany. September 29, 2021.

- Invited Talk at TeresaFest, Symbolic and Numerical Algorithm in Algebraic Geometry. Conference in honor of Teresa Krick, "Perfect necklaces", 14 December 2021.

- Talk at Virtual Meeting STIC AMSUD RAPA2 Project/RAOFA-SINFIN, "Perfect necklaces", November 30, 2021.

- Invited talk at inaugural conference of the Logic Association of Malaysia, October 20 2021.

- Invited talk at Logic and Computability session 6th Latin-American Congress of Mathematicians CLAM 2021 Montevideo September 14th, 2021.

- Invited talk at Seminar in Diophantine Analysis, Faculty of Mechanics and Mathematics Moscow State University (M.V. Lomonosov), Nested perfect necklaces and normal numbers, March 23, 2021.

- Open questions on randomness and uniform distribution. Computability Theory and Applications Seminar. March 9, 2021.

- **Invited speaker**. On modifying normal numbers. Seventh International Conference on Uniform Distribution Theory February 22, 2021.

- Normal numbers and perfect necklaces. Midwest Computability Seminar XXVI, Part ii. February 15, 2021.

2020 - Cancelled due to COVID-19 pandemia. **Invited speaker**. Numeration Utrecht, The Netherlands, 29 June - 3 July, 2020.

- Cancelled due to COVID-19 pandemia.**Invited speaker** - On normal numbers. Seventh International Conference on Uniform Distribution Theory Linz, Austria, July 6-10, 2020.

2019 Normal numbers with digit dependencies. Equidistribution: Arithmetic, Computational and Probabilistic Aspects. Institute for Mathematical Sciences, National University Singapore, 29 April-May 17, 2019.

- Azar y Autómatas, Dia de la investigación en Ciencias de la Computación, ICC y Departamento de Computación, Facultad de Ciencias Exactas y Naturales, UBA, 15 de marzo 2019 slides

- Normal numbers with digit dependencies. AMS-ASL Special Session on "Algorithmic Dimensions and Fractal Geometry" at the 2019 Joint Mathematics Meetings, January 16-19, 2019, Baltimore, MD, USA.

2018 **Invited speaker**. Conference on Mathematical Logic, Satellite event for the International Congress of Mathematicians 2018. Niterói, Brazil, 10–11 August 2018.

- Randomness and uniform distribution modulo one, joint work with Serge Grigorieff and Theodore Slaman. "Automata" seminar IRIF, Université Paris Diderot, January 19, 2018.

- Randomness and uniform distribution modulo one, joint work with Serge Grigorieff and Theodore Slaman. Oberwolfach Workshop 1802 "Computability Theory", January 7-13, 2018.

- Random! Semana de la Computació, Departamento de Computación, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, 13 de Junio de 2018.

- Randomness and uniform distribution modulo one, joint work with Serge Grigorieff and Theodore Slaman. "Automata" seminar IRIF, Université Paris Diderot, January 19, 2018.

2017 Una construcción de un número absolutamente normal y con fracción continua normal. Trabajo conjunto con Sergio Yuhjtman. Reunión Anual de la Unión Matemática Argentina, Departamento de Matemática - Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, 11 al 15 de Diciembre 2017.

- Randomness! Talk at Workshop of the Division for Logic, Methodology, and Philosophy of Science and Technology "Global Perspectives on Reasoning and Scientific Method", Salzburg, Austria. 30 November and 1 December 2017. slides

- Alan Turing, el padre de la computación. Jornadas sobre ecos de la obra y figura de Alan Turing en la Argentina, 10 de Noviembre 2017. Universidad Nacional de General Sarmiento.

- A construction of an absolutely normal and continued fraction normal number, (joint work with Sergio Yuhjtman). Randomness days, October 17-18, 2017. Departamento de Computación, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires.

- Azar y Autómatas, Jornada de Investigación para Estudiantes de Computación , Departamento de Computación, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aire, 9 de octubre 2017.

- Reunión Anual de la Unión Matemá tica Argentina, Departamento de Matemá tica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires Buenos Aires, 11 al 15 de Diciembre 2017.

- Randomness. Global Perspectives on Reasoning and Scientific Method. Workshop of the Division for Logic, Methodology, and Philosophy of Science and Technology. Salzburg, Austria. 30 November and 1 December 2017.

- On absolutely normal and continued fraction normal numbers. Randomness and Analysis of Algorithms, Departamento de Computación, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, October 17 − 18, 2017.

- **Highlight speaker** for the joint LC-CSL session. Logic Colloquium 2017, August 14-20, 2017, Stockholm, Sweden.

- **Invited speaker**. Computability and Complexity in Analysis (CCA 2017) July 24-27, 2017, Daejeon, Republic of Korea (South Korea).

- "Normality together with other properties", Number theory seminar Nancy-Metz, Institut Élie Cartan de Lorraine, Université de Lorraine. June 1, 2017.

2016 "Construction of normal numbers, computational aspects". Workshop Normal Numbers: Arithmetic, Computational and Probabilistic Aspects, Erwin Schrödinger International Institute for Mathematics and Physics (ESI) , November 14, 2016.

- "Finite-state independence and normal sequences" LIA INFINIS Workshop, November 4, 2016, Paris.

- **Invited speaker** Computability, Randomness and Applications, Centre International de Rencontres Mathématiques (CIRM) Marseilles, France, June 20–24, 2016.

- **Invited lecture** 28th European Summer School in Logic, Language and Information (ESSLLI 2016) , Free University of Bozen-Bolzano, Italy, 15–26 August, 2016.

2015 **Conferencia invitada** "Nuevos números normales". Charlas en honor a Joos Heintz por sus 70 años. Técnicas (semi)numéricas en la resolución de sistemas polinomiales. Buenos Aires,October 26 2015.

- **Invited speaker** 15th Congress of Logic, Methodology and Philosophy of Science, Session on Mathematical Logic. Helsinki, Finland, August 3–8, 2015.

- **Plenary speaker** North American Annual Meeting of the Association for Symbolic Logic, University of Illinois, March 25–28, 2015.

- "New normal numbers", Séminaire General de Logique, Equipe de Logique Mathématique, Université Paris Diderot, February 2, 2015.

2014 **Plenary speaker** Workshop of Logic Language and Information (WoLLIC), Valparaiso Chile, September 1–4, 2014.

- **Plenary speaker** XVI Simposio Latinoamericano de Lógica Matemática, Buenos Aires, July 27-August 2, 2014.

2013 **Plenary speaker** Developments in Computational Models 2013, satellite of CONCUR 2013, "On Turing's note on normal numbers", Buenos Aires, August 26, 2013.

- "On normal numbers", Séminaire Automates, LIAFA, Université Paris Diderot, July 12, 2013

- Lectures on normal numbers, Buenos Aires Semester in Computability Complexity and Randomness, March 2013.

2012 **Plenary speaker** Turing Centenary Conference CiE 2012, How the World Computes, "Turing's normal numbers: Towards Randomness", Cambridge, UK, June 18-23, 2012.

- **Plenary speaker** in Logic Workshop at Buenos Aires A Tribute to Horacio Arló Costa, "On the Definition of Randomness", Sociedad de Análisis Filosófico, Buenos Aires, August 24, 2012.

- "Sobre el Problema de Dar Ejemplos de de Números Normales", Instituto de Matemática Aplicada del Litoral (IMAL) del CONICET, Santa Fe, April 2012.

2011 **Plenary speaker** International Conference on Computability, Complexity and Randomness 2011, "A better complexity of finite sequences". Cape Town, South Africa, January 2011.

2010 **Plenary speaker** 1er Congreso Argentino de Bioinformática y Biología Computacional, Mayo 14,2010, Universidad Nacional de Quilmes, Buenos Aires.

2009 "Perfect repeats in the human genome, an exhaustive but efficient computation", IBM Life Science, Watson Research, New York, July 22, 2009.

- "Perfect repeats in the human genome, an exhaustive but efficient computation", IFIBYNE, CONICET, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, May 7, 2009.

- "What do different chromosomes have in common? An exhaustive but efficient computation", Center for Genomic Regulation, Barcelona, España, January 27, 2009.

2008 Invited talk. Cycles in de Bruijn graphs", Journée de 60 ans de Serge Grigorieff, Université Paris Diderot, 15 Janvier 2008.

2007 **Plenary speaker** Reunión Anual de Unión Matemática Argentina, "Números reales aleatorios", FAMAF, Universidad de Córdoba, 21 de septiembre de 2007.

2006 **Plenary speaker** XIII Simposio Latinoamericano de Lógica Matemática, "Turing's unpublished algorithm for normal numbers", Oaxaca México, 10 Agosto 2006.

- **Invited Speaker** "Turing's unpublished algorithm for normal numbers", Turing days, Bilgi Universitesi, Istambul, 27 May 2006.

2005 "Cornucopia of randomness", Third International Workshop on Seminumerical Techniques in Polynomial Equation Solving, meeting in honor of Joos Heintz's 60th birthday, Buenos Aires, October 24-28, 2005.

- "Old and new results in Program size complexity", LIAFA, Université Paris Diderot, France, March 2005.

2004 "High Randomness in the spirit of Rice's theorem for computability", Department of Mathematics, University of Victoria at Wellington, New Zealand, November 2004.

2003 "Is Complexity reusable?" Primeras Jornadas Latinoamericanas de Ingeniería y Desarrollo de Software. Microsoft Argentina, Pabellón Blanco de La Rural, October 30, 2003. Panelists: Verónica Becher, Yuri Gurevich , Joos Heintz.

2002 "Randomness: solved and unsolved questions", Ecole Normal Superieure, Paris, January 2002.

- "On the Standard proof of randomness", King's College, London, UK, January 2002.

- "On the Standard proof of randomness", ILLC, University of Amsterdam, The Netherlands, January 2002.

2001 "Randomness and real numbers", CREA Ecole Polytechnique, Paris, July 2001.

- "Examples of higher order randomness", XIV Coloquio Latinoamericano de Algebra, La Falda, Córdoba, Argentina, July 2001.

- "El azar y los números reales", FAMAF, Universidad de Córdoba, Argentina, July 2001.

Current Research Grants

1. PICT 2022-11-00195(Matemática) Preguntas Abiertas en Matemática efectiva. Investigadora Responsable: Verónica Becher, 2024-2026.

2. PIP PIP 2022-2024 GI 11220210100220CO (Computación). Azar, Combinatoria y Algoritmos. 2023-2025.

3. UBACyT 20020220100065BA. Azar, Combinatoria y Algoritmos Directora: Verónica Becher, 2023-2025.

4. PICT 2018-02315 (Matemática) Complejidad. Investigadora Responsable: Verónica Becher, 2020-2025.

Previous Research Grants

5. STIC-Amsud 20-STIC-06 "Randomness and Probabilistic Analysis of Algorithms", 2020-2022. Directors V. Becher (Universidad de Buenos Aires), L. Lhote (ENSICAEN and Université de Caen) and A. Viola (Universidad de La República, Uruguay) .

6. ECOS PA17C04 "Randomness and finite-state machines", Directors: Verónica Becher (Universidad de Buenos Aires) , Olivier Carton (Université de Paris), 2018-2021.

7. UBACyT 20020170100309BA "Algoritmos, Azar y complejidad" Director Joos Heintz, codirectora: V. Becher, 2018-2020.

8. PICT-2014-3260 "Algoritmos, Azar y Complejidad Intrínseca " Investigadora Responsable: Verónica Becher, 2016-2018.

9. CONICET PIP Code 11220110101093 "Random sequences: theory and algorithms", Directora, Verónica Becher 2013-2016.

10. UBACyT 20020130100433BA Leyes fáciles pero difíciles de aprender. Dirección: Joos Heintz, co-dirección: Verónica Becher, 2014-2017.

11. PICT-2010-0525, "Representación sucinta de la información en ingeniería de software y procesamiento de datos", Director: Joos Heintz, co-dirección: V. Becher, 2011-2014.

12. UBACyT 20020100100945, "Programabilidad en la era de la inundación de datos".Director: Joos Heintz, co-director: V. Becher, 2011-2014.

13. PICT-2007-2067, "Programmability versus computability", Dirección V. Becher, 2008-2011.

14. UBACyT X098. Dirección : Joos Heintz. Codirección: V.Becher, 2008-2011.

15. Binational project Argentina-France MINCyT-INRIA/CNRS FRIC/08-tics/01,"Randomness and combinatorics on words" V.Becher (UBA), J.E. Pin (Université Paris Diderot) , 2009-2011.

16. Binational project Argentina-Spain MINCyT-MICINN AR2009-009, "Homogenization Dynamics of Mammalian Genomes. An efficient and exhaustive quantitative pairwise comparison among complete chromosomes", V. Becher (UBA), H. Dopazo (Centro de Investigaciones Príncipe Felipe), 2010-2011.

17. "Algorithms for finding DNA repeats", financed by Biosidus and IBM Argentina, 2009-2011.

18. Binational project Argentina-France SECyT-INRIA/CNRS FRIC06, "Infinite sequences and algorithmic randomness ", V.Becher (UBA), J.E. Pin (CNRS-Université Paris Diderot), 2006-2008.

19. BCV-2009-2-0016 and BCV-2009-1-0015 Red Española de Supercomputación, "Homogenization Dynamics of Mammalian Genomes. An efficient and exhaustive quantitative pairwise comparison among complete chromosomes", H.Dopazo (Spain), V.Becher (Argentina), 2008, 2009.

20. UBACyT X230 "Randomness, Incompleteness and Complexity", 2004-2007.

21. PICT Redes 0172 "Derivations of Gödel's theorem: Incompleteness, complexity and randomness", V. Becher (UBA), D.Vaggione (Universidad Nacional de Córdoba), 2004 – 2007.

22. UBACyT X404,Randomness and infinite computations", 2003-2004.

23. "Algorithms, Complexity and Structure", International Science and Technology (ISAT), Linkages Fund New Zealand, R. Downey (University of Victoria, NZ), V. Becher(UBA), 2003 – 2004.

24. PICT-1999-5382 "Topics in algorithmic information theory", V.Becher, 2000 – 2003.

Teaching

Departamento de Computación, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires

1. Algoritmos y Estructuras de Datos I (2000-2015)

2. Lógica y Lenguajes (2008)

3. Información y Azar (2002-2012)

4. Azar, Algoritmos y Autómatas (2013-2022);

5. Teoría de Lenguajes (2016-2023)

6. Lenguajes Formales, Autómatas y Computabilidad (since 2024)

Departamento de Lógica y Filosofía del Lenguaje, Universidad de Sevilla, España. Información y Azar, January 2002.

Reunión Anual de la Unión Matemática Argentina, Tandil, Argentina. Informacón y Azar, october 2010.

Media Notes related to my research

1. The Omega Man, New Scientist, March 10, 2001.

2. Omega, entrevista con Gregory Chaitin, por Nora Bär, diario La Nación, Buenos Aires, 29 Abril, 2001.

3. Perfume de Azar, por Martín De Ambrosio, diario Página 12, Buenos Aires, 13 Julio, 2002.

4. Números casuales, por Verónica Engler, Exactamente, Facultad de Ciencias Exactas y Naturales, 3 Marzo, 2004.

5. De puzzles, soluciones y cuelgues de computadoras, por Cecilia Draghi, Cable Número 593, año 16, 24, Oficina de Prensa SEGBE, Octubre 2005.

6. Reconstruyen un manuscrito histórico. Es un problema matemático planteado por Alan Turing, considerado el padre de la computación, por Nora Bär, diario La Nación, 10 Julio, 2007.

7. Turing puso en juego su homosexualidad en el trabajo científico, por Leandro Lacoa, Agencia CTyS, 26 Diciembre, 2012.

8. Être normal? Pas si facile ! Jean-Paul Delahaye, Pour la Science 422: 126- 131. Décembre 2012.

9. Sobre lo azaroso que es el azar, diálogo con Verónica Becher y Theodore Slaman, por Leonardo Moledo, diario Página 12, 10 Abril, 2013.

10. Reunidos por el Azar, por Gabriel Rocca, Servicio de Información Científica de la Facultad de Ciencias Exactas y Naturales, UBA, 12 de Abril 2013.

11. Un encuentro inédito con el Azar, Conectados Ano 3, Número 6, Newsletter del Departamento de Computación, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Abril 2013.

12. Entrevista de Adrián Paenza con Theodore Slaman y Verónica Becher en Científicos Industria Argentina. Bloque 1, Bloque 2 TV Canal 7, 18 Mayo, 2013.

13. Alan Turing. El hombre que sabía demasiado, por Nora Bär, diario La Nación, 10 Enero 2014.

14. Kapow!, por Patricia Olivella, El Cable 926, Subsecretaría de Comunicación, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires 23 mayo 2018.

15. Cuando la ciencia tiene cara de mujer, diario La Nación, 2 de noviembre 2019.

16. Rebelión en el laboratorio. Historias de vida de diez científicas argentinas, Capítulo 6. Nora Bär, Editorial Planeta, 2019.

Academic record

Departamento de Computación, Facultad de Ciencias Exactas y Natirales, Universidad de Buenos Aires

- Profesora Adjunta, cargo regular dedicación exclusiva, July 2000-November 2002

- Profesora Adjunta, cargo interino dedicación exclusiva, December 2002- November 2009

- Profesora Asociada, cargo Regular dedicación exclusiva, December 2009- November 2017

- Profesora Titular, cargo Regular dedicación exclusiva, started December 2017 - ongoing

Carrera de inestigadora en CONICET

- Investigadora Asistente, February 2005-December 2006

- Investigadora Adjunta, January 2007-December 2010

- Investigadora Independiente, January 2011-December 2016

- Investigadora Principal, January 2017-ongoing