Curriculum Vitae

1 Personal Data

Last, First and Middle Names: Fervari, Raul Alberto
Document: D.N.I. 32705462
Date of Birth: May 18, 1987
Place of Birth: Adelia María, Córdoba, Argentina
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Marital Status: Single
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Facultad de Matemática, Astronomía, Física y Computación (FaMAF)
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2 Research Information

- DBLP Computer Science Bibliography Entry
- Google Scholar Profile
- Scopus Author ID: 55360884400
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- Researchgate Profile

3 Reseach Interests

Computational logic. Complexity. Inference. Model theory. Modal logics. Dynamic logics. Epistemic logics. Knowledge representation. Data-aware languages. Interactive theorem proving. Non-monotonic reasoning.

4 Degrees Obtained

- **2010-2014** Degree of Doctor in Computing Science at Facultad de Matemática, Astronomía y Física, Universidad Nacional de Córdoba, Argentina. Thesis: *"Relation-Changing Modal Logics"*. Director: Dr. Carlos Areces. Jury: Drs. Hans van Ditmarsch, Javier Blanco, Pedro Sánchez Terraf.
- **2005-2010** Degree of Licenciado en Ciencias de la Computación[1] at Universidad Nacional de Río Cuarto, Argentina. Average: 8.63 over 10. Final Project: *"Optimization of Abstraction Techniques for DynAlloy Specifications"*. Director: Dr. Nazareno Aguirre. Co-Director: Lic. Pablo Ponzio.
- **2005-2009** Degree of Analista en Computación[2] at Universidad Nacional de Río Cuarto, Argentina. Average 8.56 over 10. Final Project: *"Implementation of Abstraction Techniques for DynAlloy Specifications"*. Director: Dr. Nazareno Aguirre. Co-Director: Lic. Pablo Ponzio.

[1] Equivalent to a Master in Computer Science degree.
[2] Equivalent to a Bachelor in Computer Science degree.

5 Research Experience

2019-now Adjoint Researcher (*Investigador Adjunto*) at Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina.

2023-now Team Leader (Argentinean side) of the Theory of Structured Data Group, at the French-Argentinean lab LIA SINFIN.

2022-2023 Visiting Assistant Professor, Guangdong Technion Israel Institute of Technology (GTIIT), China.

2015-2019 Assistant Researcher (*Investigador Asistente*) at Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina.

2017 (two months) Visiting Researcher at Interdisciplinary Centre for Security, Reliability and Trust (SnT), University of Luxembourg, Luxembourg.

2014-2015 Postdoc at Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina.

2012-now Member of the research group on Logics, Interaction and Intelligent Systems (LIIS), at Facultad de Matemática, Astronomía, Física y Computación (FaMAF), Universidad Nacional de Córdoba, Argentina.

2010-2012 Member of the research group on Natural Language Processing (PLN) at Facultad de Matemática, Astronomía y Física (FaMAF), Universidad Nacional de Córdoba, Argentina.

6 Teaching Experience

6.1 Positions in institutions

1. **2022-now** Associate Professor (*Profesor Asociado*) at Facultad de Matemática, Astronomía, Física y Computación (FaMAF), Universidad Nacional de Córdoba, Argentina.
   Category IV on "Programa de Incentivos". Courses:
   - Introduction to Algorithms.
2. **2022-2023** Visiting Assistant Professor at Guangdong Technion Israel Institute of Technology (GTIIT), China.
   Courses:
   - Data Structures I.
   - Mathematical Logic.
   - Theory of Compilation.
   - Extended MCS Preparatory Course (CS track).
3. **2013-2022** Professor (*Profesor Adjunto* since 2017, before *Profesor Asistente and Profesor Ayudante A*) at Facultad de Matemática, Astronomía, Física y Computación (FaMAF), Universidad Nacional de Córdoba, Argentina.
   Category IV on "Programa de Incentivos".
   Courses:
   - Algorithms and Data Structures I.
   - Introduction to Logic and Computation.
   - Introduction to Algorithms.
   - Networks and Distributed Systems.
   - Modal Logics (graduate and undergraduate).
   - Dynamic Logics (graduate).
   - Modern Aspects of Computational Logic (graduate).
4. **2008-2010** Second Teacher Assistant at Departamento de Computación, Facultad de Ciencias Exactas, Físico-Químicas y Naturales, Universidad Nacional de Río Cuarto, Argentina.
   Courses:

- Data Structures and Algorithms - Algorithms I.
- Advanced Programming.

5. **2007** Voluntary Second Teacher Assistant at Departamento de Computación, Facultad de Ciencias Exactas, Físico-Químicas y Naturales, Universidad Nacional de Río Cuarto, Argentina.
   Courses:
   - Advanced Programming.

6.2 Invitation to other institutions or meetings

1. Lecturer at Summer School in Informatics (RIO) 2024, Universidad Nacional de Río Cuarto, Argentina. Course: "Dynamic Modal Logics" (in spanish), with Dr. Carlos Areces.
2. Professor at Instituto de Altos Estudios Mario Gulich (IG), Comisión Nacional de Actividades Espaciales (CONAE), Argentina. Course "Introduction to Intelligent Problem Solving Techniques for Planning, Scheduling and Execution" of the Master in Space Information. 2020.
3. Lecturer at European Summer School in Logic, Language and Information (ESSLLI) 2018, Sofia, Bulgaria. Course: "Modal Logics for Model Change" (advanced), with Dr. Fernando R. Velázquez-Quesada.
4. Professor at Instituto de Altos Estudios Mario Gulich (IG), Comisión Nacional de Actividades Espaciales (CONAE), Argentina. Course "Introduction to Intelligent Problem Solving Techniques for Planning, Scheduling and Execution" of the Master in Space Information. 2018.
5. Visiting Professor at Facultad de Filosofía, Humanidades y Arte, Universidad Nacional de San Juan, Argentina. Course: "Introduction to Computational Complexity" (graduate), 2016.
6. Lecturer at Summer School in Informatics (RIO) 2016, Universidad Nacional de Río Cuarto, Argentina. Course: "Logics (A Modern Perspective)" (in spanish), with Dr. Carlos Areces.
7. Lecturer at European Summer School in Logic, Language and Information (ESSLLI) 2015, Barcelona, Spain. Course: "Logics: A Dynamic Perspective" (advanced).

7 Publications

7.1 Bibliometric Data

The following bibliometric data have been updated to March, 2024.

	Google	Scopus
H-index	12	8
Total Cites	496	258
Counted Publications	47	42

7.2 Three relevant publications

[C7] Fervari R., Herzig A., Li Y., Wang Y. *Strategically Knowing How.*
Proceedings of the 26th International Joint Conference on Artificial Intelligence IJCAI-17, pages 1031–1038, 2017.
37 cites in Google Scholar, December 2021.
This is the first framework integrating 'knowing that' and 'knowing how' operators in the same language. In this way, we obtain a more realistic and precise representation of knowledge.

[J2] Areces, C., Fervari R., Hoffmann G. *Relation-Changing Modal Operators.*
In Logic Journal of IGPL, volume 23 number 4, pages 601–627, 2015.
57 cites in Google Scholar, December 2021.
It presents, for the first time, a general perspective about model-changing modalities.

[C11] Demri, S., Fervari, R. *On the Complexity of Modal Separation Logics.*
In Proceeding of Advances in Modal Logics AiML'18, pages 179-198. College Publications, 2018.
12 cites in Google Scholar, December 2021.
We present a study of separation logic operators from a modal logic perspective. In particular, we investigate the computational complexity of several logics combining modal and separating connectives.

7.3 Books

[B2] Areces, C., Benotti, L., Cortez Sánchez, J. J., Fervari, R., García, E., Gómez, M., Martínez, M. C., Onetti, M., Rodríguez Pesce, E.S., Wolovick, N. *Ciencias de la computación para el aula: 2do. ciclo de primaria. (Book in CS for elementary school, in spanish).* Colihue, 2018. ISBN 978-987-27416-5-5.

[B1] Fervari, R. *Relation-Changing Modal Logics.*
PhD Thesis, Facultad de Matemática, Astronomía y Física, Universidad Nacional de Córdoba, Argentina, 2014.

7.4 In Journals

[J15] Areces, C., Fervari, R., Saravia, A. R, Velázquez-Quesada, F. R. *Uncertainty-Based Knowing How Logics.*
Journal of Logic and Computation (JLC), 2023, in press.

[J14] Bednarczyk, B., Demri, S., Fervari, R., Mansutti, A. *On Composing Finite Forests with Modal Logics.*
ACM Transactions on Computational Logic (ToCL), Volume 24, Issue 2, Article No. 12, pp 1–46, 2023.

[J13] Cassano, V., Fervari, R., Areces, C., Castro, P. F. *Algebraic Tools for Default Modal Systems.*
Journal of Logic and Computation (JLC), volume 33, issue 6, pages 1301-1325, 2023.

[J12] Fervari, R., Velázquez-Quesada, F. R., Wang Y. *Bisimulations for Knowing How Logics.*
The Review of Symbolic Logic (RSL), volume 15, number 2, pages 450-486, 2022.

[J11] Areces, C., van Ditmarsch, H., Fervari, R., Maubert, B., Schwarzentruber, F. *Copy and Remove as Dynamic Operators.*
Journal of Applied Non-Classical Logics (JANCL), volume 31, number 3-4, pages 181-220, 2021.

[J10] Areces, C., Fervari, R. *Axiomatizing Hybrid XPath with Data.*
Logical Methods in Computer Science (LMCS), volume 17, issue 3, 2021.

[J9] Demri S., Fervari R., Mansutti, A. *Internal Proof Calculi for Modal Logics with Separating Conjunction.*
Journal of Logic and Computation (JLC), volume 31, issue 3, pages 832–891, 2021.

[J8] Fervari, R., Trucco, F., Ziliani, B. *Verification of Dynamic Bisimulation Theorems in Coq.*
Journal of Logical and Algebraic Methods in Programming (JLAMP), volume 120, article 100642, 2021.

[J7] Demri S., Fervari R. *The Power of Modal Separation Logics.*
Journal of Logic and Computation (JLC), volume 29, pages 1139–1184, 2019.

[J6] Fervari R., Velázquez-Quesada, F.R. *Introspection as an Action in Relational Models.*
Journal of Logical and Algebraic Methods in Programming (JLAMP), volume 108, pages 1–23, 2019.

[J5] Areces, C., Fervari R., Hoffmann G., Martel, M. *Satisfiability for Relation-Changing Logics.*
Journal of Logic and Computation (JLC), volume 7, pages 1443–1470, 2018.

[J4] Abriola, S., Descotte, M. E., Fervari, R., Figueira, S. *Axiomatizations for downward XPath on Data Trees.*
Journal of Computer and System Sciences, volume 89, Pages 209–245, 2017.

[J3] Areces, C., van Ditmarsch, H., Fervari, R., Schwarzentruber, F. *The Modal Logic of Copy and Remove.*
Information and Computation, volume 255, pages 243–261, 2017.

[J2] Areces, C., Fervari R., Hoffmann G. *Relation-Changing Modal Operators.*
In Logic Journal of IGPL, volume 23 number 4, pages 601–627, 2015.

[J1] Areces, C., Fervari R., Hoffmann G. *Swap Logic.*
In Logic Journal of IGPL, volume 22 number 2, pages 309–332, 2014.

7.5 In Proceedings of Conferences

[C28] Areces, C., Cassano, V., Fervari, R., Hoffmann, G. *DefTab: A Tableaux System for Sceptical Consequence in Default Modal Logics.*
In Proceedings of the 32nd International Conference on Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX 2023), volume 14278 of LNCS, pages 37-48, Springer 2023.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C27] Areces, C., Cassano, V., Castro, P. F., Fervari, R., Saravia, A.R. *How Easy it is to Know How: An Upper Bound for the Satisfiability Problem.*
In Proceedings of the 18th European Conference on Logics in Artificial Intelligence (JELIA 2023), volume 14281 of LNCS, pages 405-419, Springer 2023.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C26] Areces, C., Cassano, V., Dutto, D., Fervari, R. *Data Graphs with Incomplete Information (and a Way to Complete Them).*
In Proceedings of the 18th European Conference on Logics in Artificial Intelligence (JELIA 2023), volume 14281 of LNCS, pages 729-744, Springer 2023.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C25] Demri, S., Fervari, R. *Model-Checking for Ability-Based Logics with Constrained Plans.*
In Proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI-23), volume 37, number 5, pages 6305-6312, 2023.
Ranked A* on The Computing Research and Education Ranking - CORE Portal (2018).

[C24] Areces, C., Cassano, V., Castro, P. F., Fervari, R., Saravia, A.R. *A Deontic Logic of Knowingly Complying.*
In Proceedings of the 22nd International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2023), pages 364-372, ACM 2023.
Ranked A* on The Computing Research and Education Ranking - CORE Portal (2018).

[C23] Areces, C., Cassano, V. Fervari R. *Non-monotonic Reasoning via Dynamic Consequence.*
In Logic, Language, Information and Computation (WoLLIC), volume 13468 of Lecture Notes in Computer Science, pages 395–410. Springer 2022.
Ranked B on The Computing Research and Education Ranking - CORE Portal (2018).

[C22] Areces, C., Fervari, R., Saravia, A. R., Velázquez-Quesada, F. R. *First Steps in Updating Knowing How.*
DaLí - Dynamic Logic: new trends and applications, Proceedings, volume 13780 of LNCS, pages 1-16, 2022.

[C21] Fervari, R., Mansutti, A. *Modal Logics and Local Quantifiers: A Zoo in the Elementary Hierarchy.*
In Proceedings of 25th International Conference on Foundations of Software Science and Computation Structures (FoSSaCS 2022), volume 13242 of LNCS, pages 305-324, Springer 2022.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C20] Areces, C., Fervari, R., Saravia, A. R., Velázquez-Quesada, F. R. *Uncertainty-Based Semantics for Multi-Agent Knowing How Logics.*
In Proceedings of 8th Conference on Theoretical Aspects of Rationality and Knowledge TARK 2021, pages 23-37, EPTCS 335, 2021.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C19] Castro, P.F., Cassano, V., Fervari, R., Areces, C. *Deontic Action Logics via Algebra.*
In Proceedings of 15th International Conference on Deontic Logic and Normative Systems DEON2020/ 2021, pages 77-93, College Publications, 2021.

[C18] Cassano, V., Fervari, R., Areces, C., Castro, P.F. *Default Modal Systems as Algebraic Updates.*
DaLí - Dynamic Logic: new trends and applications, Proceedings, Lecture Notes in Computer Science, volume 2569, pages 103-119, 2020.

[C17] Bednarczyk, B., Demri, S., Fervari, R., Mansutti, A. *Modal Logics with Composition on Finite-Forests: Expressivity and Complexity.*
In Proceedings of the 35th Annual ACM/IEEE Symposium on Logic In Computer Science (LICS'20), 2020. IEEE Press, pages 167-180, 2020.
Ranked A* on The Computing Research and Education Ranking - CORE Portal (2018).

[C16] Castro, P.F., Cassano, V., Fervari, R., Areces, C. *An Algebraic Approach for Action Based Default Reasoning.*
In Proceedings of 7th Conference on Theoretical Aspects of Rationality and Knowledge TARK 2019, pages 91-105, volume 297, 2019.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C15] Cassano, V., Fervari, R., Hoffmann, G., Areces, C., Castro, P.F. *A Tableaux Calculus forDefault Intuitionistic Logic.*
In Proceedings of 27th International Conference on Automated Deduction CADE 2019, volume 11716 of Lecture Notes in Computer Science, pages 161-177, 2019.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C14] Demri, S., Fervari R., Mansutti, A. *Axiomatising Logics with Separating Conjunction and Modalities.*
In Proceedings of 16th European Conference on Logics in Artificial Intelligence, JELIA 2019, Lecture Notes in Computer Science, volume 11468, pages 692–708.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C13] Cassano, V., Fervari R., Areces, C., Castro, P. *Interpolation and Beth Definability in Default Logics.*
In Proceedings of 16th European Conference on Logics in Artificial Intelligence, JELIA 2019, Lecture Notes in Computer Science, volume 11468, pages 675–691.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C12] Fervari, R., Trucco, F., Ziliani, B. *Mechanizing Bisimulation Theorems for Relation-Changing Logics in Coq.*
DaLí - Dynamic Logic: new trends and applications, Proceedings, Lecture Notes in Computer Science, volume 12005, pages 3–18, 2019.

[C11] Demri, S., Fervari, R. *On the Complexity of Modal Separation Logics.*
In Proceeding of Advances in Modal Logics AiML'18, pages 179-198. College Publications, 2018.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C10] Fervari, R., Velázquez-Quesada, F. R. *Dynamic Epistemic Logics of Introspection.*
DaLí - Dynamic Logic: new trends and applications, Proceedings, Lecture Notes in Computer Science, volume 10669, pages 82–97,2017.

[C9] Areces, C., Fervari, R., Hoffmann, G., Martel, M. *Undecidability of Relation-Changing Modal Logics.*
DaLí - Dynamic Logic: new trends and applications, Proceedings, Lecture Notes in Computer Science, volume 10669, pages 1–16,2017.

[C8] Areces, C., Fervari R., Seiler N. *Tableaux for Hybrid XPath with Data.*
In Progress in Artificial Intelligence - 18th EPIA Conference on Artificial Intelligence, EPIA 2017, Proceedings, Lecture Notes in Computer Science, volume 10423, pages 611–623,2017.

[C7] Fervari R., Herzig A., Li Y., Wang Y. *Strategically Knowing How.*
Proceedings of the 26th International Joint Conference on Artificial Intelligence IJCAI-17, pages 1031–1038, 2017.
Ranked A* on The Computing Research and Education Ranking - CORE Portal (2018).

[C6] Areces, C., Fervari, R. *Hilbert-style Axiomatization for Hybrid XPath with Data.*
In Proceedings of the 15th European Conference on Logics in Artificial Intelligence (JELIA 2016), Larnaca, Cyprus, November 2016.
Ranked A on The Computing Research and Education Ranking - CORE Portal (2018).

[C5] Areces, C., Fervari R., Hoffmann G., Martel, M. *Relation-Changing Logics as Fragments of Hybrid Logics.*
In Proceedings of the 7th International Symposium on Games, Automata, Logics, and Formal Verification (GandALF 2016), Catania, Italy, September 2016.

[C4] Areces, C., van Ditmarsch, H., Fervari, R., Schwarzentruber, F. *Logics with Copy and Remove.*
In Logic, Language, Information and Computation (WoLLIC), volume 8652 of Lecture Notes in Computer Science, pages 51–65. Springer Berlin Heidelberg, 2014.
Ranked B on The Computing Research and Education Ranking - CORE Portal (2018).

[C3] Fervari, R. *The Impact of Including Model Update Operators in Modal Logics.*
In Pristine Perspectives on Logic, Language, and Computation - ESSLLI 2012 and ESSLLI 2013 Student Sessions. Selected Papers, volume 8607 of Lecture Notes in Computer Science, pages 91–108. Springer Berlin Heidelberg, 2014.

[C2] Areces, C., Fervari R., Hoffmann G. *Tableaux for Relation-Changing Modal Logics.*
In Frontiers of Combining Systems (FroCoS), volume 8152 of Lecture Notes in Computer Science, pages 263–278. Springer, 2013.

[C1] Areces, C., Fervari R., Hoffmann G. *Moving Arrows and Four Model Checking Results.*
In Logic, Language, Information and Computation (WoLLIC), volume 7456 of Lecture Notes in Computer Science, pages 142–153. Springer Berlin Heidelberg, 2012.
Ranked B on The Computing Research and Education Ranking - CORE Portal (2018).

7.6 Other peer reviewed events

[W3] Cassano, V., Fervari R., Areces, C., Castro, P.F. *Interpolation Results for Default Logic Over-Modal Logic.*
In Advances in Modal Logics AiML'18 short presentations, 2018

[W2] Fervari, R., Velázquez-Quesada, F. R., Wang Y. *Bisimulations for Knowing How Logics.*
In Proceedings of the 5th International Workshop on Strategic Reasoning (SR 2017), Liverpool, UK, July, 2017.

[W1] Fervari R. *The Expressive Power of Swap Logic.*
In ESSLLI StuS 2012, Opole, Poland, 2012.

7.7 Divulgation articles

[D2] Ariño R., Degiovanni R., Fervari R., Ponzio P., Aguirre N. *Mejorando la Aplicación de Abstracción por Predicados a Especificaciones DynAlloy.*
I Workshop de Aspectos Teóricos de Ciencias de la Computación, XVI Congreso Argentino de Ciencias de la Computación (CACIC 2010), Morón, Provincia de Buenos Aires, 2010.

[D1] Ariño R., Degiovanni R., Fervari R., Ponzio P., Aguirre N. *Towards Scaling Up DynAlloy Analysis using Predicate Abstraction.*
VI Workshop de Ingeniería de Software, XV Congreso Argentino de Ciencias de la Computación (CACIC 2009), San Salvador de Jujuy, 2009.

7.8 Other Reports

[R5] Icard, B., Fervari, R. *Beyond the Spell: A Dynamic Logic Analysis of Misdirection.*
CoRR abs/2401.14516 (2024).

[R4] Fervari, R. *Tipos de Datos.*
Chapter of Computer Science handbook for Elementary School, (age 9 to 11). Fundación Manuel Sadosky, 2017.

[R3] Fervari, R., Orbe, E. *Autómatas y Lenguages, (3rd. version).* Introduction to Logic and Computation course material, FaMAF, Universidad Nacional de Córdoba, Argentina. 2015.

[R2] Ariño R., Degiovanni R., Fervari R. *Optimización de Técnicas de Abstracción por Predicados para Especificaciones DynAlloy.*
Final project of Licenciatura en Ciencias de la Computación, Departamento de Computación, Facultad de Ciencias Exactas, Físico-Químicas y Naturales de la Universidad Nacional de Río Cuarto, Argentina, 2010.

[R1] Ariño R., Degiovanni R., Fervari R. *Implementación de Técnicas de Abstracción por Predicados para Especificaciones DynAlloy.*
Final project of Analista en Computación, Departamento de Computación, Facultad de Ciencias Exactas, Físico-Químicas y Naturales de la Universidad Nacional de Río Cuarto, Argentina, 2009.

8 Scholarships and Awards

- **2020** Seal of Excellence, delivered by European Commission, for a high score of the proposal "DYNORES: Dynamics of Reasoning", at the Horizon 2020's MSC actions call H2020-MSCA-IF-2020.
- **2016** Prize "10 Jóvenes Sobresalientes", by Bolsa de Comercio de la Provincia de Córdoba.
- **2012** Best Poster Award, ESSLLI Sudent Session 2012.
- **2012** Student Grant to attend ESSLLI 2012, Opole, Poland.
- **2010-2014** PhD Grant PFDT (Proyecto de Formación de Doctores en Áreas Tecnológicas Prioritarias), SECyT, Universidad Nacional de Córdoba, Argentina, and FONCyT, Agencia Nacional de Promoción Científica y Tecnológica. Director: Dr. Carlos Areces.
- **2009** TiCs Scholarship, Secretaría de Políticas Universitarias del Ministerio de Educación de la Nación (PNBTICS).
- **2008** Research Assistant, SeCyT of Universidad Nacional de Río Cuarto, Argentina. Project: "Implementation of a tool for the Abstraction of DynAlloy Specifications". Director: Dr. Nazareno M. Aguirre. Co-Director: Lic. Pablo D. Ponzio.

9 Participation in National and International Projects

9.1 As responsable

[O9] **2023** Director of Project funded by SeCyT, Universidad Nacional de Córdoba, for organizing the 11^{th} Workshop of Fundamentals for Automated Analysis and Construction of Software, FACAS 2024.

[O8] **2018-2020** Director of the project "Strategic Reasoning on Multi-Agent Systems: A Modal Framework", PICT-MINCYT-2021-GRFTI-00400, ANPCyT, Argentina. [$2273040]

[O7] **2022-2024** Director of the Project "Modal Logics and Strategic Reasoning", Project PIBAA (Proyectos de Investigación Bianual para Investigadoras/es Asistentes y Adjuntas/os de reciente ingreso a CONICET), CONICET, Argentina.

[O6] **2021-2024** Member of the Responsible Group of the Poject "Dynamic Logics for Action" , PICT-MINCYT-2020-3780 A, ANPCyT, Argentina.

[O5] **2019** Director of Project funded by SeCyT, Universidad Nacional de Córdoba, for the organizing the 8^{th} Workshop of Fundamentals for Automated Analysis and Construction of Software, FACAS 2020.

[O4] **2018-2021** Co-director of the Project "Data-aware Languages for graph data-bases", SeCyT, Universidad Nacional de Córdoba, Argentina.

[O3] **2018-2020** Director of the Project "Formalization and Interactive Verification of Dynamic Modal Logics", GRFT, MinCyT Códoba, Argentina.

[O2] **2018-2020** Director of the Project "Complexity and Inference on Dynamic Languages", PICT-MINCYT-2017-1130 B, ANPCyT, Argentina.

[O1] **2016-2017** Director of the Project "Algoritmos de Razonamiento sobre XPath". Category B, SeCyT, Universidad Nacional de Córdoba, Argentina.

9.2 As a member

[P18] **2023-now** Member of the Project "DL(R) - Dynamic Logics Reloaded". STIC-AmSud, Collaboration between Argentina, Brazil, Chile and France. International coordinator: Dr. Carlos Areces.

[P17] **2021-2023** Member of the Project "Plans, Actions and Dynamic Languages". PIP CONICET. Director: Dr. Carlos Areces.

[P16] **2020-2021** Member of the Project "DyLo-MPC - Dynamic Logics: Model Theory, Proof Theory and Computational Complexity". STIC-AmSud, Collaboration between Argentina, Brazil and France. International coordinator: Dr. Carlos Areces.

[P15] **2019-now** Member of Theory of Structured Data team of the French-Argentinean Laboratory (Laboratoire Internationale Associíe) LIA SINFIN.

[P14] **2018-2020** Member of the project "Lenguajes 'data-aware' sobre bases de datos estructuradas en grafos", PICT-MINCYT-2016-0215 (RAICES), ANPCyT, Argentina. Director: Dr. Santiago Figueira.

[P13] **2016-2017** Member of the project "Asesoramiento en el Diseño de Material Didáctico para las Ciencias de la Computación", within initiative Program.AR, funded by Fundación Dr. Manuel Sadosky.

[P12] **2016-2018** Member of the Project "Automatización de Asistentes de Prueba Interactivos", PICT B, ANPCyT, Argentina. Director: Dr. Beta Ziliani.

[P11] **2016-2017** Member of the Program "Inferencia para Generación del Lenguaje Natural", SeCyT, Universidad Nacional de Córdoba, Argentina. Director: Dr. Carlos Areces.

[P10] **2016-2017** Member of the Project "FoG - Foundations of Graph Structured Data". STIC-AmSud, Colaboration between Argentina, Chile and France. International coordinator: Dr. Santiago Figueira.

[P9] **2014-2017** Member of the Project "Expresividad en XPath". PICT-Raices, ANPCyT, Argentina. Director: Dr. Carlos Areces.

[P8] **2014-2015** Member of the Project "MISMT - Modally Inspired SMT". STIC-AmSud, Colaboration between Argentina, Brazil and France. International Coordinator: Dr. Carlos Areces.

[P7] **2014-2015** Member of the Project "Expresividad de Dominios de Planning y su Optimización". SeCyT, Universidad Nacional de Córdoba, Argentina. Director: Dr. Carlos Areces.

[P6] **2011-2018** Member of Computational Logic team of the French-Argentinean Laboratory (Laboratoire Internationale Associíe) LIA INFINIS.

[P5] **2011-2015** Participant of the Project MEALS: Mobility between Europe and Argentina applying Logics to Systems, PEOPLE, Marie Curie Actions, International Research Staff Exchange Scheme, FP7-PEOPLE-2011-IRSES.

[P4] **2012-2013** Member of the Project "Inferencia Dinámica y Aplicaciones", SeCyT, Universidad Nacional de Córdoba, Argentina. Director: Dr. Carlos Areces.

[P3] **2011-2013** Member of the Project "Simulaciones. Caracterización, Complejidad y Algoritmos Optimizados", PICT-Bicentenario, Universidad Nacional de Córdoba, Argentina. Director: Dr. Carlos Areces.

[P2] **2010-2011** Member of the Project "Planning sobre Estructuras Relacionales", SeCyT, Universidad Nacional de Córdoba, Argentina. Director: Dr. Carlos Areces.

[P1] **2008-2010** Student Member of Project "Motivando la Curiosidad Científica en la Licenciatura en Ciencias de la Computación", PIIMEG (Proyectos de Innovación e Investigación para el Mejoramiento de la Enseñanza de Grado), Universidad Nacional de Río Cuarto. Director: Mg. Francisco Bavera.

10 Research Visits

1. Visit to Laboratoire Méthodes Formelles (LMF), Université Paris-Saclay, Centre National de la Recherche Scientifique (CNRS), and ENS Paris-Saclay, France. To work with Dr. Stepháne Demri. June 2022, September-October 2023.
2. Visit to Laboratoire Spécification et Vérification, ENS Cachan and Centre National de la Recherche Scientifique (CNRS), France. To work with Dr. Stepháne Demri. July 2017, November-December 2017, September 2018 and September-October 2019.
3. Visit to LILaC Team at Institut de Recherche en Informatique de Toulouse (IRIT) at Université Paul Sabatier, Toulouse, France. To work with Dr. Andreas Herzig. August 2015.
4. Visit to CELLO Team at Laboratoire Lorrain de Recherche en Informatique et ses Applications (Loria), Nancy, France. To work with Dr. Hans van Ditmarsch, funded by MEALS Project. February 2013, July 2014, September 2015.
5. Visit to VeriDiS Team at Laboratoire Lorrain de Recherche en Informatique et ses Applications (Loria), Nancy, France. To work with Drs. Pascal Fontaine and Stephan Merz, funded by MEALS Project. August 2012.
6. Visit to Universidade Federal do Rio de Janeiro (UFRJ) and Universidade de São Paulo. October 2011.

11 Supervision

11.1 Supervision of Doctoral Theses (ongoing)

[Ph2] Juliana Putero. FaMAF, UNC, Argentina, 2022–2027. Funded by CONICET (Argentina). (Co-supervised with Dr. Valentin Cassano).

[Ph1] Andrés R. Saravia. FaMAF, UNC, Argentina, 2020–2025. Funded by CONICET (Argentina)

11.2 Supervision of Master Theses and Undergraduate Projects (finished)

[L6] Ziqi Wang. *Axiomatizing Ability-Based Logics with Regularity Constraints.* GTIIT, China, 2024.

[L5] Dámaris Acevedo Giménez. *Tableaux for Default Description Logics.* UNRC, Argentina, 2021. (Co-supervised with Dr. Valentin Cassano).

[L4] Andrés R. Saravia. *Tableaux Calculus for Elementary Formulae in Separation Logics.* FaMAF, UNC, Argentina, 2020.

[L3] Marianela Morales. *Labelled Proof Theory for Modal Intuitionistic Logics.* FaMAF, UNC, 2018. (Co-supervised with Dr. Lutz Strassburger).

[L2] Francisco Trucco. *Verification of Modal Logics with Coq.* FaMAF, UNC, 2018. (Co-supervised with Dr. Beta Ziliani).

[L1] Nahuel Seiler. *Tableaux Algorithms for XPath.* FaMAF, UNC, 2018.

11.3 Supervision of Grants

[G5] Juliana Putero. PhD Grant, CONICET, 2022-2027.

[G4] Bettina Milanesio. PhD Grant, CONICET, 2021-2026 (Stopped in 2022).

[G3] Andrés R. Saravia. PhD Grant, CONICET, 2020-2025.

[G2] Andrés R. Saravia. "Becas de Estímulo a las Vocaciones Científicas", Consejo Interuniversitario Nacional (CIN), Argentina, 2019.

[G1] Facundo Ramallo, Intel Argentina Software Development Center, Córdoba, Argentina.

11.4 Jury of PhD Theses

[H5] Pablo Ventura. *Algorithms for Deciding Definability on First-Order Logic Fragments.* FaMAF, UNC, 2023. Director: Dr. Miguel Campercholi.

[H4] Araceli Acosta. *Tools and Formal Mechanisms for the Treatment of Fault Tolerance.* FaMAF, UNC, 2022. Director: Dr. Nazareno Aguirre.

[H3] Cecilia Kilmurray. *Extensions of Temporal Logics with Deontic Notions for the Specification and Analysis of Fault Tolerance Systems.* FaMAF, UNC, 2020. Director: Dr. Pablo F. Castro.

[H2] Mallku Soldevila. *Operational Semantics and its Application for the study of Garbage Collection, on Lua 5.2.* FaMAF, UNC, 2020. Directors: Drs. Daniel Fridlender y Beta Ziliani.

[H1] Ivana Romina Altamirano. *Generación de Expresiones Referenciales Bajo Incertidumbre con Teoría de Modelos.* FaMAF, UNC, 2016. Supervisor: Dr. Luciana Benotti.

11.5 Jury of Master Theses

[M5] Nicolás Benjamín Ocampo. *Uso de Planes Relajados en Grounding Heurístico.* FaMAF, UNC, Argentina, 2021. Supervisors: Drs. Carlos Areces and Martín Domínguez.

[M4] Alejandro Naser Pastoriza. *Verificación Formal de Protocolos Distribuidos.* FaMAF, UNC, Argentina, 2019. Supervisor: Dr. Alexey Gotsman.

[M3] Marco Moresi. *Modelado Automático de Trayectorias de Aprendizaje: Cuándo generar ayuda personalizada para principiantes en programación?.* FaMAF, UNC, Argentina, 2019. Director: Lic. Marcos Gómez

[M2] Giovanni Rescia. *Simetrías en Lógicas de Descripción..* FaMAF, UNC, 2017. Supervisor: Dr. Ezequiel Orbe.

[M1] Gisela Rossi. *Lógicas Modales con Datos Infinitos.* FaMAF, UNC, 2015. Supervisor: Dr. Carlos Areces.

12 Presentations

- **2023** Presentation at AAAI-23, Washington DC, USA (virtual). Invited Talk at FM & AI working group, LMF, Paris-Saclay, France. Conference 'Enrique Gavioala', in ocassion of FAMAF-UNC's $67th$ birthday, Argentina.
- **2022** Invited talk at MCS colloquium, GTIIT, Shantou, China.
- **2021** Short talk at TARK 2021, Beijing, China (virtual). Invited Talk at Universidad Nacional de San Juan, Argentina.
- **2020** Invited talk at LoReL seminar, Buenos Aires, Argentina.
- **2019** Invited talk at LiRa seminar, ILLC, Amsterdam, The Netherlands. Presentation at DaLí, Porto, Portugal. Presentation at CADE, Natal, Brazil. Invited talk at FACAS, La Falda, Argentina.
- **2017** Invited talk at IRC team Seminar at UL, Luxembourg. Invited talk at LSV Seminar at ENS Cachan, France. Presentation at DaLí, Brasília, Brazil.
- **2016** Invited talk at FACAS, Santa Fé, Argentina.
- **2015** LILaC Team Seminar, IRIT, UPS, Toulouse, France.
- **2014** Presentation at WoLLIC'14, Valparaíso, Chile. PhD dissertation, FaMAF, UNC, Córdoba, Argentina.

- **2013** Invited talk at Seminar for Students of Mathematics, FaMAF, UNC, Córdoba, Argentina.
- **2012** Presentation at WoLLIC'12, Buenos Aires, Argentina. Invited talk at VeriDiS Team Seminar, Loria, Nancy, France. Poster presentation in ESSLLI'12 Student Session, Opole, Poland.
- **2011** Invited talk at "Logic in Rio" and Seminar for Students, UFRJ, Rio de Janeiro, Brazil and Seminar at USP, São Paulo, Brazil.
- **2009** Presentation at CACIC'09, Jujuy, Argentina.

13 Colaboration in Scientific Meetings and Journals

- Reviewer in Journals: Annals of Mathematics and Artificial Intelligence (AMAI), Journal of Logic and Computation (JLC), Artificial Intelligence (AIJ), Journal of Logics and their Applications (IfCoLog), Journal of Automated Reasoning (JAR), Journal of Logical and Algebraic Methods in Programming (JLAMP), Journal of Logic, Language and Information (JLLI), Fundamenta Informaticae, The Review of Symbolic Logic.
- Member of the Program Committee: International Conference on Logic and Argumentation (CLAR) 2023 (Hangzhou, China), 37th AAAI Conference on Artificial Intelligence (AAAI-23), (Washington DC, USA), Latin American Workshop series on Logic/Languages, Algorithms and New Methods of Reasoning (LANMR) 2022 (virtual), International Conference on Logic and Argumentation (CLAR) 2021 (Hangzhou, China), ESSLLI Student Session 2021 (virtual) , International Joint Conference on Artificial Intelligence (IJCAI) 2020 (Yokohama, Japan), International Joint Conference on Artificial Intelligence (IJCAI) 2019 (Macao, China), International Conference on Automated Deduction (CADE) 2019, (Natal, Brazil), ESSLLI Student Session 2017 (Toulouse, France), European Conference on Logics in Artificial Intelligence (JELIA) 2016, (Larnaca, Cyprus), International Joint Conference on Artificial Intelligence (IJCAI) 2016 (New York, USA), ESSLLI Student Session 2016 (Bolzano, Italy), Simposio Latinoamericano de Teoría Computacional, en Conferencia Latinoamericana en Informática (CLEI) 2014 (Montevideo, Uruguay).
- Reviewer in Conferences: International Conference on Foundations of Software Science and Computation Structures (FoSSaCS) 2022, Munich, Germany, International Conference on Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX) 2021 (Birmingham, UK), International Conference on Artificial Intelligence (AAAI) 2021 (virtual), International Conference on Formal Structures for Computation and Deduction (FSCD) 2021, (Buenos Aires, Argentina), ACM/IEEE Symposium on Logic in Computer Science (LICS) 2019 (Vancouver, Canada), International Conference on Automated Deduction (CADE) 2019 (Natal, Brazil), International Symposium on Mathematical Foundations of Computer Science (MFCS) 2019 (Aachen,Germany), International Colloquium on Automata, Languages and Programming (ICALP) 2019 (Patras, Greece), International Joint Conference on Automated Reasoning (IJCAR) 2018 (Oxford, UK), Theoretical Aspects of Rationality and Knowledge (TARK) 2017 (Liverpool, UK), International Colloquium on Theoretical Aspects of Computing (ICTAC) 2017 (Hanoi, Vietnam), Advances in Modal Logic (AiML) 2016 (Budapest, Hungary), International Conference on Principles of Knowledge Representation and Reasoning (KR) 2016 (Cape Town, South Africa), Symposium on Applied Computing (SAC) 2015 (Salamanca, Spain), Advances in Modal Logic (AiML) 2014 (Groningen, The Netherlands), Methods for Modalities (M4M) 2013 (Nueva York, USA), Advances in Modal Logic (AiML) 2012 (Copenhaguen, Denmark).
- Member of Organization Committee of the Sixth Argentinean Workshop of Foundations for Analysis and Automated Construction of Software FACAS 2018, La Falda, Córdoba.
- Organizer of "Dissemination Workshop" of the Project MEALS. Universidad de Buenos Aires, Argentina. July 2015.
- Collaborator of the Organization Committee of The Symposium on Automatic Program Verification (APV 2009) and 16 Escuela de Verano de Ciencias Informáticas Rio 2009. Departamento de Computación, Universidad Nacional de Rio Cuarto y ETH Zürich, Switzerland. 2009.

14 Academic and Scientific Positions

- Member of the *ad hoc* comission for scientific project evaluations, PICT, MinCyt, Argentina, 2023.
- Member of of the Comisión Asesora de Computación (CAC) of FaMAF, Universidad Nacional de Córdoba, Argentina. From 2022 to 2024.

- Member of the CS Board for PhD studies of FaMAF, Universidad Nacional de Córdoba, Argentina. From 2021 to 2023.
- External specialist for the evaluation of CONICET researchers (several times).
- Co-cordinator of the Comisión Asesora de Computación (CAC) of FaMAF, Universidad Nacional de Córdoba, Argentina. From 2018 to 2019.
- Member of the Comisión Asesora de Computación (CAC) of FaMAF, Universidad Nacional de Córdoba, Argentina. From 2012 to 2014 and from 2016 to 2018.
- Student Member on Department Council in Departamento de Computación at Universidad Nacional de Río Cuarto, Argentina. From 2008 to 2010.
- Collaborator of the Committe of Organization in The Symposium on Automatic Program Verification (APV 2009) and 16th Summer School in Computer Science Rio 2009.
  Departamento de Computación, Universidad Nacional de Río Cuarto, Argentina, and ETH Zürich, Switzerland. February of 2009.
- Substitute Student Member of the Permanent Curriculum Commission in Departamento de Computación at Universidad Nacional de Río Cuarto, Argentina. Period 2008/2009.
- Substitue Student Member on Department Council in Departamento de Computación at Universidad Nacional de Río Cuarto, Argentina. From 2006 to 2008.

15 Language Skills

	Reading	Speaking	Writing
Spanish*	Advanced	Advanced	Advanced
English	Advanced	Advanced	Advanced
French	Beginning	Beginning	Beginning

* Mother tongue.

Last updated March 7, 2024.