

CURRICULUM VITAE

Sabrina D. Roscani

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1 Personal Data

Name: Roscani, Sabrina Dina

Nationality: Argentine

Place and date of birth: Rosario, October 6, 1983

Personal email: sabrinaroscani@gmail.com

Work emails: sroscani@austral.edu.ar, sabrina@fceia.unr.edu.ar

Website: <https://www.austral.edu.ar/investigadores/roscani-sabrina/>

National ID (D.N.I.): 30.173.044

2 Current Position

- Adjunct Professor (part-time). Department of Mathematics, ECEN, FCEIA, Universidad Nacional de Rosario.
- Adjunct Researcher, Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Department of Mathematics, Facultad de Ciencias Empresariales, Universidad Austral, Rosario.

3 Education

3.1 Undergraduate

- **Licenciada en Matemática (B.Sc. in Mathematics):** Facultad de Ciencias Exactas Ingeniería y Agrimensura (FCEIA), Universidad Nacional de Rosario (UNR), 2006–2011. Best GPA Award: 9.32 (all-time, program).
- **Secondary and Higher Education Mathematics Teacher:** FCEIA–UNR, 2002–2006. Best GPA Award: 9.48 (all-time, program).

3.2 Graduate

- **Ph.D. in Mathematics:** FCEIA–UNR, 2011–2015.

4 Research

4.1 CONICET Scientific Researcher Career

- Assistant Researcher, since 12/1/2018.
- Adjunct Researcher, since 7/1/2022.

4.2 General Background

4.2.1 Research Grants Obtained

1. Austral Project, “Study of problems governed by nonlinear partial differential equations in anomalous diffusion processes and in the deformation of shells.” Director. Period: 1/2025–12/2026. 20th Internal Research Competition, Universidad Austral.
2. CONICET PIP No. 11220220100532, “Study of problems modeled by non-classical partial differential equations. Theory and applications.” Co-director. Period 2024–2027.
3. 80020230300102UR, “The enthalpy formulation in fractional Stefan-type problems. Models, analysis and numerical methods.” Co-director. Period 2025–2026.
4. PICT-2021-I-INVI-00317, “Time or Space Fractional Stefan Problems. Theory and applications”. Director: Sabrina D. Roscani. Period: 03/2023–02/2025 (2 years).
5. Austral Project 006–INV00030, “Problems associated with fractional diffusion equations with Caputo and Riemann–Liouville temporal and/or spatial derivatives. Theory and applications”. Principal investigator: Sabrina D. Roscani. Period: 01/2023–12/2024 (2 years). 18th Internal Research Competition, Universidad Austral.
6. Austral Project 006–INV00020, “Problems associated with fractional diffusion equations”. Principal investigator: Sabrina D. Roscani. Period: 02/2021–01/2023 (2 years). 16th Internal Research Competition, Universidad Austral.
7. Austral Project 006–INV00020, “Various problems associated with fractional parabolic operators”. Principal investigator: Sabrina D. Roscani. Period: 01/2019–12/2020 (2 years). 14th Internal Research Competition, Universidad Austral.

4.2.2 Participation in Accredited Research Projects

1. CONMECH – European Union’s Horizon 2020 No. 823731, “Nonsmooth Contact Dynamics.” Director: Stanislaw Migorski. Argentine coordinator: Domingo A. Tarzia. Period: 2019–2022 (4 years).
2. ANPCyT PICTO Austral 2016 No. 0090, “The heat/diffusion equation and free boundary and optimal control problems: Theory, numerical analysis and applications”. Director: Domingo A. Tarzia. Period: 2018–2020 (3 years).
3. CONICET-Univ. Austral PIP No. 11220110100275 (2014 call), “Variational inequalities, optimal control and free boundary problems: theory, numerical analysis and applications.” Director: Domingo A. Tarzia. Period: 2017–2019 (3 years).

4. IT 1310, MINCYT (Argentina) and MAE (Italy). “Mathematical methods and models for transport and diffusion in the dynamics of physical systems in the bio-medical environment”. Argentine director: Domingo A. Tarzia (CONICET-Univ. Austral, Rosario, Argentina); Italian director: Fabio Rosso (Univ. di Firenze, Florence, Italy). Period: 2014–2016 (3 years).
5. CONICET-Univ. Austral PIP No. 11220110100534 (2011 call), “Variational inequalities, optimal control and free boundary problems: theory, numerical analysis and applications.” Director: Domingo A. Tarzia. Period: 2014–2016 (3 years).
6. ING 349. “Free boundary problems with fractional differential equations” (FCEIA-UNR). Project director: Eduardo A. Santillan Marcus. Period: 01/01/2011 to 12/2012.
7. CONICET-Univ. Austral PIP No. 11220080100460 (2008 call), “Variational inequalities and free boundary problems for the heat/diffusion equation.” Director: Domingo Tarzia. Participation period: 01/04/2011 to 31/12/2013.
8. ING 276. “Problem solving as an engine of learning in the mathematical education of engineering students” (FCEIA-UNR). Direction: Ing. Alberto Miyara. From 01/2010 to 12/2011.

4.2.3 Postdoctoral Fellowships

- CONICET Postdoctoral Fellowship. Duration: 2 years. Director: Domingo A. Tarzia. Start: July 10, 2016, ongoing.

4.2.4 Doctoral Fellowships

- CONICET Doctoral Fellowship, Type II. Duration: 2 years. Director: Eduardo A. Santillan Marcus. Co-director: Domingo A. Tarzia. From April 1, 2014 to July 9, 2016.
- CONICET Doctoral Fellowship, Type I. Duration: 3 years. Director: Domingo A. Tarzia. Co-director: Eduardo A. Santillan Marcus. From April 1, 2011 to March 31, 2014.

4.2.5 Other Fellowships

- Registration grant for ICIAM 2023 (Tokyo).
- Fellowship for graduate courses at the Instituto de Matemática Pura e Aplicada, awarded by the same institution (IMPA – Rio de Janeiro, Brazil). January–February 2010.

4.3 Research Output

4.3.1 Articles Published in Peer-Reviewed Scientific Journals

1. S. Roscani, K. Ryszewska, and L. Venturato. “On a Space Fractional Stefan problem of Dirichlet type with Caputo flux”. *Mathematische Nachrichten* (2026), e70254.
2. M.T. Cao-Rial, S. Roscani, L. Venturato, “Asymptotic analysis of linearly elastic shells in normal compliance contact: Error estimates for the elliptic membrane case”. *Mathematics and Mechanics of Solids* (2026), pp. 1–22.
3. D. Guevara, S. Roscani, L. Venturato and D. Tarzia. “A one-phase Fractional Spatial Stefan Problem with Convective specification at the fix boundary”. *Axioms*, 14 No. 757 (2025), 1–24.
4. N. Caruso, S. Roscani, L. Venturato, V. Voller. “On Computation of Prefactor of Free Boundary in One Dimensional One-Phase Fractional Stefan Problems”, *Fractal and Fractional*, Vol. 9, No. 7 (2025), ID 397.
5. A.D. Arós-Rodríguez, C. Fernandes, S. Roscani, “Asymptotic Analysis of Elastic Elliptic Membrane Shells in Frictional Contact: Exploring Wear Phenomena.” *Asymptotic Analysis* Vol. 142 No. 1 (2025), pp. 291–320.
6. D. Hilhorst, S. Roscani, P. Rybka, “Convergence of solutions of a one-phase Stefan problem with Neumann boundary data to a self-similar profile”, *Nonlinear Differential Equations and Applications* 31, 56 (2024).
7. S. Roscani, V. Voller. “On an enthalpy formulation for a sharp-interface memory-flux Stefan problem”, *Chaos, Solitons and Fractals*, 181 (2024). 114679.
8. V. Voller, S. Roscani. “A general non-Fourier Stefan problem formulation that accounts for memory effects”, *International Journal of Heat and Mass Transfer*, 209 (2023), 124094.
9. S. Roscani, L. Venturato. “About Convergence and Order of Convergence of some Fractional Derivatives”, *Progress in Fractional Differentiation and Applications*, Vol. 8 No. 4 (2022), pp. 495–508.
10. S. Roscani, K. Ryszewska and L. Venturato. “A one-phase space-fractional Stefan problem with no liquid initial domain”. *SIAM Journal on Mathematical Analysis*, Vol. 54 No. 5 (2022), pp. 5489–5523.
11. I. Cardos, S. Roscani and D. Tarzia, “About the convergence of a family of initial boundary value problems for a fractional diffusion equation of Robin type”, *Applied Mathematics and Computation*, Vol. 433 (2022), ID 127375.

12. S. Roscani, D. Tarzia, and L. Venturato. “The similarity method and explicit solutions for the fractional space one-phase Stefan problems”. *Fractional Calculus and Applied Analysis*, Vol. 25 (2022), pp. 995–1021.
13. M.T. Cao-Rial, G. Castiñeira, Á. Rodríguez-Arós, S. Roscani, “Mathematical and asymptotic analysis of thermoelastic shells in normal damped response contact”, *Communications in Nonlinear Science and Numerical Simulation*, Vol. 103 (2021), 105995.
14. M.T. Cao-Rial, G. Castiñeira, Á. Rodríguez-Arós, S. Roscani, “Asymptotic Analysis of Elliptic Membrane Shells in Thermoelastodynamics”, *Journal of Elasticity*, Vol. 143 (2021), pp. 385–409.
15. S. Roscani, N. D. Caruso, D. A. Tarzia, “Explicit solutions to fractional Stefan-like problems for Caputo and Riemann–Liouville derivatives”, *Communications in Nonlinear Science and Numerical Simulation*, Vol. 90 (2020), 105361.
16. S. Roscani, D. A. Tarzia, L. Venturato. “Global Solution to a nonlinear Fractional Diffusion Equation for the Caputo-Fabrizio derivative”, *Progress in Fractional Differentiation and Applications*, Vol. 5 No. 4 (2019), pp. 1–13.
17. S. Roscani, D. A. Tarzia, “An integral Relationship for a Fractional One-phase Stefan Problem”, *Fractional Calculus and Applied Analysis*, Vol. 21 No. 4 (2018), pp. 901–918.
18. S. Roscani, D. A. Tarzia, “Two different fractional Stefan problems which are convergent to the same classical Stefan problem”, *Mathematical Methods in the Applied Sciences*, 41 (2018), pp. 6842–6850.
19. S. Roscani, J. Bollati and D. A. Tarzia, “A new mathematical formulation for a phase change problem with a memory flux”, *Chaos Solitons and Fractals*, 116 (2018), pp. 340–347.
20. S. Roscani, D. A. Tarzia, “Explicit solution for a two-phase fractional Stefan problem with a heat flux condition at the fixed face”, *Computational and Applied Mathematics*, 37 (2018), pp. 4757–4771.
21. S. Roscani, “Moving-Boundary Problems for the Time-Fractional Diffusion Equation”, *Electronic Journal of Differential Equations*, Vol. 2017 (2017), No. 14, pp. 1–12.
22. S. Roscani, “Hopf Lemma for the Fractional Diffusion Operator and its Application to a Fractional Free-Boundary Problem”, *Journal of Mathematical Analysis and Applications*, 434 (2016), pp. 125–135.

23. D. Goos, G. Reyero, S. Roscani, E. Santillan Marcus, “On the Initial-Boundary-Value Problem for the Time-Fractional Diffusion Equation on the Real Positive Semi-axis”, *International Journal of Differential Equations*, Vol. 2015 (2015), Article ID 439419, 14 pages.
24. L. Fusi, A. Farina, F. Rosso, S. Roscani, “Pressure driven lubrication flow of a Bingham fluid in a channel: A novel approach”, *Journal of Non-Newtonian Fluid Mechanics*, 221 (2015), pp. 66–75.
25. S. Roscani, D. A. Tarzia, “A Generalized Neumann Solution for the Two-Phase Fractional Lamé-Clapeyron-Stefan Problem”, *Advances in Mathematical Sciences and Applications*, Vol. 24, No 2, (2014), pp. 237–249.
26. S. Roscani, E. Santillan Marcus, “A new equivalence of Stefan’s problems for the Time Fractional Diffusion Equation”, *Fractional Calculus and Applied Analysis*, Vol. 17, No 2 (2014), pp. 371–381.
27. S. Roscani, E. Santillan Marcus, “Two equivalent Stefan’s Problems for the Time Fractional Diffusion Equation”, *Fractional Calculus and Applied Analysis*, Vol. 16, No 4 (2013), pp. 802–815.

4.3.2 Articles Published in Conference Proceedings

1. S. Roscani, L. Venturato, “A family of fractional Stefan problems converging to the quasi-stationary case as the Stefan number tends to zero”, *Matemática Aplicada, Computacional e Industrial*, 2025, Vol. 10, 273–276.
2. D. Guevara, S. Roscani, L. Venturato, “A similarity solution for a space fractional Stefan problem with convective condition”, *Matemática Aplicada, Computacional e Industrial*, 2025, Vol. 10, 285–288.
3. M. T. Cao-Rial, S. Roscani, L. Venturato, “On the regularity of the solution for an elasticity problem in elliptic shells with contact”, *Matemática Aplicada, Computacional e Industrial*, 2025, Vol. 10, 212–215.
4. S. Roscani, K. Ryszewska and L. Venturato, “On the existence and regularity of solutions for a Stefan problem with Caputo flux”. *Matemática Aplicada, Computacional e Industrial*, 2023, Vol. 9, 207–210.
5. S. Roscani, K. Ryszewska and L. Venturato, “Development of classical tools for space fractional Stefan problems with Caputo derivative”, *Matemática Aplicada, Computacional e Industrial*, 2023, Vol. 9, 2011–214.

6. S. D. Roscani, L. Venturato and D. A. Tarzia, “Self-similar solutions for two space fractional Stefan problems”. *Matemática Aplicada, Computacional e Industrial*, 2021, Vol. 8, pp. 289–292.
7. I. Cardoso, S. D. Roscani and D. A. Tarzia, “On solutions of a family of Robin-type initial and boundary value problems for the time fractional diffusion equation”. *Matemática Aplicada, Computacional e Industrial*, 2021, Vol. 8, pp. 141–144.
8. S. D. Roscani and D. A. Tarzia, “On Stefan-type problems modeled by time-fractional derivatives”. *Matemática Aplicada, Computacional e Industrial*, 2019, Vol. 7, pp. 381–384.
9. S. D. Roscani, L. Venturato and D. A. Tarzia, “Global existence and uniqueness of the solution to a nonlinear fractional differential equation for the Caputo-Fabrizio derivative”. *Matemática Aplicada, Computacional e Industrial*, 2019, Vol. 7, pp. 117–120.
10. S. Roscani, D. Tarzia, “Integral relationship for a One-Dimensional Fractional Stefan Problem”, *Matemática Aplicada, Computacional e Industrial*, 2017, Vol 6, pp. 372–375.
11. G. Reyer, S. Roscani, E. Santillan Marcus, “Two equivalent Stefan problems for the time fractional diffusion equation”, *Matemática Aplicada, Computacional e Industrial*, 2012, Vol 4, pp. 141–144.
12. S. Roscani, E. Santillan Marcus, “A boundary problem in the first quadrant for the fractional diffusion equation”, *Matemática Aplicada, Computacional e Industrial*, 2012, Vol 4, pp. 97–100.

4.4 Referee for Scientific Journals and International Conferences

- 2026: *Journal of Energy Storage, Acta Applicandae mathematicae*.
- 2025: *Journal of Mathematical Analysis and Applications, Revista de la Facultad de Ciencias de la Universidad Nacional de Colombia, Mechanics of Solids, Communications in Nonlinear Science and Numerical Simulation, Horizon Research Publishing, USA (HRPUB)*.
- 2024: *Fractional Calculus and Applied Analysis, Revista de la Unión Matemática Argentina, Numerical Heat Transfer, Part A: Applications, International Communications in Heat and Mass Transfer*.
- 2023: *Physica Scripta*.

2022: Fractional Calculus and Applied Analysis, Revista de la Unión Matemática Argentina.

2020: Mathematical Methods in the Applied Sciences.

2019: Revista de la Unión Matemática Argentina.

2017: Computational and Applied Mathematics; Applied Mathematics, Scientific Research Publishing.

2016: British Journal of Mathematics and Computer Science.

2015: IET Control Theory and Applications; Applied Mathematics, Scientific Research Publishing.

2014: Mathematical Methods in the Applied Sciences.

4.5 Scientific Dissemination

4.5.1 Invited Talks, Communications and Seminars (Speaker)

Selected presentations at international conferences, seminars, and invited talks (over 30 talks delivered since 2011, including):

1. “Self-similar solutions as large-time asymptotics for space-fractional Stefan problems”, Emerging Trends in Applied Mathematics and Mechanics (ETAMM 2026), Lodz, Poland, September 2-4, 2026.
2. “The self-similar solution as temporal asymptotic behavior for space fractional Stefan problems”, SEDEMATE 2026, FCEIA-UNR, Rosario, June 26, 2026.
3. “A family of fractional Stefan problems converging to the quasi-stationary case as the Stefan number tends to zero”, X Congreso de Matemática Aplicada, Computacional e Industrial, UTN Facultad Regional Córdoba, May 12–15, 2025.
4. “On the two phases 1D fractional Stefan problem”, ISAAC-ICMAM Conference of Analysis in Developing Countries 2024, December 2–6, 2024.
5. “On an enthalpy formulation for a sharp-interface memory-flux Stefan problem”, 3rd Emerging Trends in Applied Mathematics and Mechanics (ETAMM 2024), A Coruña, Spain, May 20–24, 2024.
6. “On different formulations for time-fractional Stefan problems”, 10th International Congress on Industrial and Applied Mathematics, Waseda University, Tokyo, Japan (virtual), August 20–25, 2023.

7. “On an enthalpy formulation for a sharp-interface memory flux Stefan problem”, Fontán Seminar in Mathematics, CONMECH event, Centro de Investigación y Tecnología Matemática de Galicia, June 13, 2023.
8. “Mathematical and asymptotic analysis of thermoelastic shells in normal damped response contact”. Mathematical Congress of the Americas, July 9–23, 2021.
9. “About Explicit Solutions to Different One-dimensional Fractional Stefan-Like Problems”, Nonlocal diffusion problems, nonlocal interface evolution (online), Institute of Mathematics, Polish Academy of Sciences, October 1–3, 2020.
10. “Free boundary problems for fractional diffusion operators in time”. CONMECH Seminar – New trends in Contact Mechanics and related topics, Universidade Da Coruña, June 28, 2019.
11. “Some results on Fractional Stefan Problems”. Seminar at the Dipartimento di Scienze Statistiche, Sapienza – Università di Roma, Rome, Italy, October 24, 2016.
12. “Two equivalent Stefan’s Problems for the Time Fractional Diffusion Equation”. Seminar at the Dipartimento di Matematica, Sapienza – Università di Roma, Rome, Italy, June 12, 2014.
13. “A new equivalence between Stefan’s problems for the Time-Fractional Diffusion Equation”, ICFDA’2014 International Conference on Fractional Differentiation and its Applications, Università degli Studi di Catania, Italy, June 23–25, 2014.

(Full list of over 30 additional talks and communications at national and international conferences, seminars and congresses available upon request.)

4.6 Organization of Scientific Events

1. Member of the Local Committee, CIMPA School “Numerical Analysis of PDEs: Classical Methods and Recent Advances”, 1st FCEIA Mathematics School, FCEIA, Rosario, July 20–24, 2026.
2. Coordinator of the scientific session “Free Boundary Problems and Applications”, X Congreso de Matemática Aplicada, Computacional e Industrial, UTN Facultad Regional Córdoba, May 2025.
3. Organizer of the minisymposium “Development in fractional diffusion equations: models and methods”, 10th International Congress of Industrial and Applied Mathematics 2023, Waseda University, Tokyo, Japan, August 20–25, 2023.
4. Coordinator of the scientific session “Free Boundary Problems and Applications”, IX Congreso de Matemática Aplicada, Computacional e Industrial, Universidad del Litoral, Santa Fe, May 8–11, 2023.

5. Coordinator of the scientific session “Plenary Session in Honor of Domingo Tarzia”, VIII Congreso de Matemática Aplicada, Computacional e Industrial, Universidad Nacional de La Plata (virtual), May 3–7, 2021.
6. Coordinator of the scientific session “Free Boundary Problems and Applications”, VIII Congreso de Matemática Aplicada, Computacional e Industrial, Universidad Nacional de La Plata (virtual), May 3–7, 2021.
7. Coordinator of the scientific session “Free Boundary Problems and Applications”, VII Congreso de Matemática Aplicada, Computacional e Industrial, Universidad Nacional de Río Cuarto, May 8–10, 2019.
8. Local organizing committee member, VII Congreso Italo-Latinoamericano de Matemática Aplicada e Industrial, VII ITLA 2012, Universidad Austral de Rosario, December 17–21, 2012.

4.7 Undergraduate Thesis Defense

S. Roscani. “Introduction to Fractional Calculus” (03/22/2011). Advisor: Eduardo A. Santillan Marcus. Grade: 10 (highest distinction). Degree obtained: Licenciada en Matemática.

4.8 Doctoral Thesis Defense

S. Roscani. “Explicit solutions to different problems associated with the Fractional Diffusion Equation” (11/30/2015). Advisor: Eduardo A. Santillan Marcus. Committee: Dr. Julián Fernandez Bonder (UBA), Dr. Julio Rossi (UBA), Dr. Lisandro Parente (UNR). Grade: 10 (highest distinction). Degree obtained: Doctora en Matemática.

4.9 Research Stays Abroad

1. Universidade Da Coruña, Spain, CONMECH research project. 05/20/2024 to 06/06/2024.
2. Universidade Da Coruña, Spain, CONMECH research project. 06/06/2023 to 06/19/2023.
3. Universidad de Varsovia, Warsaw, invited by Prof. Piotr Rybka. 08/29/2022 to 09/10/2022.
4. Fundación Getulio Vargas, Rio de Janeiro, invited by Prof. Ma. Soledad Aronna. 07/03/2022 to 07/09/2022.
5. Universidade Da Coruña, Spain, CONMECH research project. 06/21/2019 to 07/13/2019.
6. Università degli Studi di Firenze, Italy, invited by Prof. Fabio Rosso. 10/15/2016 to 10/31/2016.

7. Università degli Studi di Firenze, Italy, IT 1310 MINCYT (Argentina)/MAE (Italy) research project. 05/27/2014 to 06/25/2014.

4.10 Thesis Committees and Award Juries

1. Committee member, doctoral thesis in Mathematics, “Analysis of nonlocal anisotropic problems and variational applications”, defended by Ignacio Ceresa Dussel, advisor: Dr. Julián Fernández Bonder. August 2025.
2. Jury member, graduate poster competition, IX Congreso de Matemática Aplicada, Computacional e Industrial, Universidad del Litoral, Santa Fe, May 8–11, 2023.
3. Committee member, undergraduate thesis in Mathematics, “A compartmental model to analyze the evolution of the COVID-19 epidemic”, defended by Jerónimo G. Neder. March 2022.
4. Committee member, undergraduate thesis in Mathematics, “Caputo-Fabrizio Fractional Derivative”, defended by Lucas Venturato. March 2019.
5. Committee member, undergraduate thesis in Mathematics, “Application of the Laplace Transform to Fractional Calculus”, defended by Prof. Ana Laura Alet. August 2016.

5 Supervision and Mentoring

5.1 Undergraduate Thesis Supervision

- D. Guevara, “A one-dimensional fractional Stefan problem with convective-type condition”, Undergraduate thesis, Licenciatura en Matemática, FCEIA, UNR, Rosario, February 2025.
- L. Venturato, “Caputo-Fabrizio Fractional Derivative”, Final undergraduate project, Licenciatura en Matemática, FCEIA, UNR, Rosario, March 18, 2019.

5.2 Doctoral Thesis Supervision

- L. Venturato, “Study of solutions to Stefan-type problems associated with anomalous diffusion processes and binary alloys”, Doctoral thesis, Doctorado en Matemática, UNR, Rosario, December 14, 2023.

5.3 Current Fellows

- Doctoral fellowship (2025–2029). Funding agency: CONICET. Fellow: D. Guevara. Role: Director.

- Postdoctoral fellowship (2024–2027). Funding agency: CONICET. Fellow: L. Venturato. Role: Director.
- CIN fellowship (October 2024–September 2026). Funding agency: UNR. Fellow: D. Guevara. Role: Director.

6 Teaching (Summary)

Teaching experience at FCEIA–UNR since August 2005, currently serving as Adjunct Professor (part-time, interim appointment since April 2014). Over the course of her career she has held positions ranging from Second/First Teaching Assistant to Teaching Assistant Chief (Jefe de Trabajos Prácticos) and Adjunct Professor, across the Department of Mathematics (ECEN) and the Department of Basic Sciences (EFB) of FCEIA–UNR, as well as at Universidad Tecnológica Nacional (2008–2011).

Courses taught include, among others: Numerical Analysis I and II, Mathematical Analysis I and II, Calculus II, III and IV, Differential Equations, Differential Equations II, Mathematical Methods, Algebra and Geometry I and II, Geometry I and III, Numerical Methods, Probability and Statistics, and, within the Mathematics Teacher Training Program (Profesorado en Matemática), Problem Solving and Technological Resources in Mathematics Education.

She has also contributed to the Department’s introductory (bridging) mathematics course for incoming students (2005–2008) and has been involved in mathematics-education research and outreach, including:

6.1 Selected Publications and Presentations in Mathematics Education

- Gianatti, J., Roscani, S., Schaefer, L. and Vidal, L. (2025), “The use of videos in the classroom: an experience in the UNR Teacher Training Program”, Proceedings of the Third Conference on Professional Teaching Practice in University Mathematics Teacher Training Programs.
- Roscani, S., Schaefer, L. and Trucco, M. (2022), “The formal definition of limit and technology: implementations with future Mathematics Teachers”, Proceedings of the Second Conference on Professional Teaching Practice in University Mathematics Teacher Training Programs.
- S. Roscani, L. Schaefer, C. Menna. “Technological resources in Mathematics teacher training: the formal definition of limit in a collaborative GeoGebra applet”. Proceedings of the VI Conference on Innovative Educational Experiences at FCEIA (2020), ISBN 978-987-3662-42-4, pp. 89–99.

6.2 Institutional Teaching Roles

- Faculty representative for the Licenciatura en Matemática on the ECEN School Council, FCEIA, UNR, October 2021–April 2023.
- Faculty representative for the Profesorado en Matemática on the ECEN School Council, FCEIA, UNR, June 2020–September 2021.
- Moderator, Third Conference on Professional Teaching Practice in University Mathematics Teacher Training Programs, FCEIA, UNR (virtual), November 6–8, 2024.
- Moderator, Second Conference on Professional Teaching Practice in University Mathematics Teacher Training Programs, FCEIA, UNR (virtual), October 25–29, 2021.
- Committee member for internal teaching-position competitions, Department of Mathematics, ECEN–FCEIA (positions of Teaching Assistant, Teaching Assistant Chief and Adjunct Professor), in 2015, 2016, 2017, 2021 and 2024.

6.3 Continuing Education

- Workshop on Visual Communication and Interactive Books, Area of Educational Technology and Innovation, FCEIA, UNR. 4 hs. July 2024.
- Graduate course: Mathematical Software in the Mathematics Classroom, FCEIA, taught by Mgr. Patricia C  and Prof.  rica Panella, 96 hs, March–August 2013. Grade: 10 (highest distinction).
- Training course: Analysis, precalculus and basic mathematics: an integrative view, FCEIA, taught by Dr. Bibiana Iaffei and Dr. Rosa Liliana Nitti, 09/03/10–10/20/10, 40 hs. Grade: 10.
- Graduate course: Historical and Epistemological Development of Mathematics, Facultad de Ciencias Econ micas, UNR, taught by Dr. Adolfo Ord  ez, August–September 2006, 27 hs. Grade: 10.
- Graduate course: Didactics of Statistics and Probability, FCEIA, taught by Lic. Elisa Petrone, 08/23/05–09/01/05, 40 hs. Grade: 9.