Nina Pardal

Lecturer in Databases in AI and Data Science, University of Edinburgh

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Current Position

- **Lecturer in Databases in AI and Data Science**, School of Informatics, University of Edinburgh, UK, 2025–present. Responsibilities include research, teaching, PhD supervision and academic service.

Research Expertise

- Research at the intersection of **knowledge representation and reasoning, database theory, and graph theory**, with a focus on **graph modification problems**, **data-graphs**, and **inconsistency and uncertainty management: database repairs and consistent query answering, provenance and annotations**.

Key Qualifications

- **Fellow of the Higher Education Academy (FHEA)**, 2026.
- **Ph.D. in Mathematics**, Universidad de Buenos Aires, Argentina, 2020.
- **Ph.D. in Computer Science**, Université Sorbonne Paris Nord, France, 2020.
- **Diploma in Mathematics (equiv. MSc)**, Universidad de Buenos Aires, Argentina, 2015.

Funding and Recognition

- Co-applicant, *Database Repairs, Consistent Answers, and Semirings*, Research-in-Groups programme, International Centre for Mathematical Sciences (ICMS), Edinburgh, 2025 (with P. Kolaitis and J. Virtema).
- CONICET Postdoctoral Fellowship, Argentina, 2020–2023;
- Saint-Exupéry Scholarship, Argentina–France, 2019–2020.

Other Funding

- 2024: Full financial help to attend *Women in Logic 2024*, co-located with LICS-ICALP 2024.

Invited Talks and Tutorials

- Invited tutorial, *Provenance and Semiring Semantics*, Reasoning Web Summer School, Vilnius, Lithuania, 2026.
- Invited speaker, Midlands Graduate School Christmas Seminar, Birmingham, UK, 2025.

Selected Participation in Seminars and Workshops

- *Dagstuhl Seminar 26282 "KR Meets XAI: Bridging Symbolic and Neuro-Symbolic AI for True Explainability"*, Dagstuhl, Germany, 2026.
- *Dagstuhl Seminar 25081 "Semirings in Databases, Automata, and Logic"*, Dagstuhl, Germany, 2025.
- *6th Workshop "BRAON: Belief Revision, Argumentation, Ontologies and Norms"*, Madeira, Portugal, 2024.
- *Dagstuhl Seminar 24111 "Logics for Dependence and Independence: Expressivity and Complexity"*, Dagstuhl, Germany, 2024.
- *Dagstuhl Seminar 24102 "Shapes in Graph Data: Theory and Applications"*, Dagstuhl, Germany, 2024.

Academic Service

- Programme Committee member: KR 2026, FoIKS 2026, JELIA 2025, ECAI 2024, KR 2024, AMW 2024.
- Journal reviewer for *Discrete Applied Mathematics*, *Semantic Web Journal*, *Annals of Pure and Applied Logic*, *European Journal of Combinatorics*, and *Graphs and Combinatorics*.
- Co-organiser, *Foundations and Future of Change in Artificial Intelligence (FCAI 2025)*, co-located with ECAI 2025, Bologna, Italy; proceedings editor, CEUR Workshop Proceedings, vol. 4069.
- Organiser, Database Group Seminar, University of Edinburgh (2026–present); Local Organiser, FoIKS 2024.

Research Projects

- Research team member, Horizon Europe project *UPCAST: Universal Platform Components for Safe Fair Interoperable Data Exchange, Monetisation and Trading* (2024–2025). PI: G. Konstantinidis.
- Research team member, DFG-funded project *Logical Approach to Quantum Mechanics and Contextuality* (2020–2024). PI: J. Virtema.
- Research team member, *DODAM: Declarative and Ontology-Enhanced Data Analytics and Machine Learning*, STICAmSud, AMSUD210006 (2022–2023). PI: L. Bertossi.

PhD Supervision

- PhD supervisor of **Felipe Azúa Zagal**, University of Edinburgh, 2026–present (fully funded PhD, 3.5 years).
- PhD supervisor of **Ayelén Alcantar**, Universidad de Buenos Aires, 2022–present (fully funded PhD, 5 years).

Previous Academic Positions

2025	Lecturer in Computer Science, University of Huddersfield, UK.
2024–2025	Senior Research Fellow, University of Southampton, UK.
2022–2024	Research Associate in Computer Science Logic, University of Sheffield, UK.
2023–2025	Tenured Researcher, CONICET, Argentina (on academic leave during UK appointments).
2020–2022	Postdoctoral Fellow, ICC–CONICET, Universidad de Buenos Aires; Assistant Professor (part-time), Department of Computer Science, UBA.

Selected Publications

- P. Kolaitis, N. Pardal, J. Virtema and J. Wijsen, *Rewriting Consistent Answers on Annotated Data*. PODS 2025.
- L. Bertossi and N. Pardal, *Sufficient Explanations in Databases and their Connections to Database Repairs*. RuleML+RR 2026.
- S. Cifuentes, L. Bertossi, N. Pardal, S. Abriola, M. V. Martinez and M. Romero, *The Distributional Uncertainty of the SHAP score in Explainable Machine Learning*. ECAI 2024.
- N. Fröhlich, A. Meier, N. Pardal and J. Virtema, *A logic-based framework for database repairs*. KR 2025.
- S. Abriola, S. Cifuentes, M. V. Martínez, N. Pardal and E. Pin, *On the complexity of finding set repairs for data-graphs*. Journal of Artificial Intelligence Research 76, 721–759, 2023.
- I. Koch, N. Pardal and V. F. dos Santos, *Edge deletion on tree-like graph classes*. Discrete Applied Mathematics 348, 122–131, 2024.