

# List of Publications

## Ofer Arieli

### Books

1. A.Avron, O.Arieli, A.Zamansky. *Theory of Effective Propositional Paraconsistent Logics*. Studies in Logic, volume 75 (sub-series: Mathematical Logic and Foundations), College Publications, 2018 (ISBN: 978-1-84890-270-1).

### Articles in Scientific Journals

1. O.Arieli, A.Avron. Reasoning with logical bilattices. *Journal of Logic, Language, and Information* 5(1), pages 25–63, 1996.
2. O.Arieli, A.Avron. The value of the four values. *Artificial Intelligence* 102(1), pages 97–141, 1998.
3. O.Arieli, A.Avron. A model theoretic approach to recover consistent data from inconsistent knowledge-bases. *Journal of Automated Reasoning* 22(3), pages 263–309, 1999.
4. O.Arieli. Four-valued logics for reasoning with uncertainty in prioritized Data. In: *Information, Uncertainty, Fusion*. B.Bouchon-Meunier, R.R.Yager, and L.A.Zadeh, editors, Kluwer Academic Publishers, pages 293–304, 1999.
5. O.Arieli, A.Avron. Bilattices and paraconsistency. In: *Frontiers of Paraconsistent Logic*. D. Batens, C. Mortensen, G. Priest, and J. Van Bendegem, editors, Studies in Logic and Computation 8, Research Studies Press, pages 11–27, 2000.
6. O.Arieli, A.Avron. General patterns for nonmonotonic reasoning: from basic entailments to plausible relations. *The Logic Journal of the Interest Group in Pure and Applied Logics* (IGPL) 8(2), pages 119–148, 2000.
7. O.Arieli. Paraconsistent declarative semantics for extended logic programs. *Annals of Mathematics and Artificial Intelligence* 36(4), pages 381–417, 2002.
8. O.Arieli, M.Denecker. Reducing preferential paraconsistent reasoning to classical entailment. *Journal of Logic and Computation* 13(4), pages 557–580, 2003.
9. O.Arieli. Reasoning with different levels of uncertainty. *Journal of Applied Non-Classical Logics* 13(3–4), pages 317–343, 2003.
10. O.Arieli, M.Denecker, B.Van Nuffelen, M.Bruynooghe. Coherent integration of databases by abductive logic programming. *Journal of Artificial Intelligence Research* 21, pages 245–286, 2004.
11. O.Arieli, M.Denecker, B.Van Nuffelen, M.Bruynooghe. Computational methods for database repair by signed formulae. *Annals of Mathematics and Artificial Intelligence* 46(1–2), pages 4–37, 2006.
12. C.Cornelis, O.Arieli, G.Deschrijver, E.Kerre. Uncertainty modeling by bilattice-based squares and triangles. *IEEE Transactions on Fuzzy Systems* 15(2), pages 161–175, 2007.
13. G.Deschrijver, O.Arieli, C.Cornelis, E.Kerre. A bilattice-based framework for handling graded truth and imprecision. *Uncertainty, Fuzziness and Knowledge-Based Systems* 15(1), pages 13–41, 2007.
14. O.Arieli. Paraconsistent reasoning and preferential entailments by signed quantified Boolean formulae. *ACM Transactions on Computational Logic* 8(3), Article 18, 2007.

15. O.Arieli, M.Denecker, M.Bruynooghe. Distance semantics for database repair. *Annals of Mathematics and Artificial Intelligence* 50(3–4), pages 389–415, 2007.
16. O.Arieli. Distance-based paraconsistent logics. *The International Journal of Approximate Reasoning* 48(3), special issue on non-monotonic reasoning and uncertainty, pages 766–783, 2008.
17. O.Arieli. Reasoning with prioritized information by iterative aggregation of distance functions. *Journal of Applied Logic* 6(4), pages 589–605, 2008.
18. O.Arieli, A.Zamansky. Distance-based non-deterministic semantics for reasoning with uncertainty. *The Logic Journal of the Interest Group in Pure and Applied Logics* 17(4), pages 325–350, 2009.
19. M.Denecker, A.Cortés-Calabuig, M.Bruynooghe, O.Arieli. Towards a logical reconstruction of a theory for locally closed databases. *ACM Transactions on Database Systems* 35(3), Article 22, 2010.
20. O.Arieli, A.Zamansky. Simplified forms of computerized reasoning with distance semantics. *Journal of Applied Logic* 9(1), pages 1–22, 2011.
21. O.Arieli, A.Zamansky. A framework for reasoning under uncertainty based on non-deterministic distance semantics. *International Journal of Approximate Reasoning* 52(2), pages 184–211, 2011.
22. O.Arieli, A.Avron, A.Zamansky. Maximal and pre-maximal paraconsistency in the framework of three-valued semantics. *Studia Logica* 97(1), pages 31–60, 2011.
23. O.Arieli, A.Avron, A.Zamansky. Ideal paraconsistent logics. *Studia Logica* 99(1–3), pages 31–60, 2011.
24. O.Arieli, M.Caminada. A QBF-based formalization of abstract argumentation semantics. *Journal of Applied Logic* 11(2), pages 229–252, 2013.
25. O.Arieli, A.Zamansky. A dissimilarity-based framework for generating inconsistency-tolerant logics. *Annals of Mathematics and Artificial Intelligence* 73(1–2), pages 47–73, 2015.
26. O.Arieli, C.Straßer. Sequent-based logical argumentation. *Journal of Argument and Computation* 6(1), pages 73–99, 2015.
27. O.Arieli. Conflict-free and conflict-tolerant semantics for constrained argumentation frameworks. *Journal of Applied Logic* 13(4), pages 582–604, 2015.
28. O.Arieli, A.Avron. Three-valued paraconsistent propositional logics. In: *New Directions in Paraconsistent Logic*, Chapter 4, J.Y.Béziau, M.Chakraborty and S.Dutta, editors, pages 91–129, Springer, 2015.
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33. O.Arieli, A.Borg, C.Straßer. Reasoning with maximal consistency by argumentative approaches. *Journal of Logic and Computation* 28(7), pages 1523–1563, 2018.
34. C.Straßer, O.Arieli. Normative reasoning by sequent-based argumentation. *Journal of Logic and Computation* 29(3), pages 387–415, 2019.
35. O.Arieli, C.Straßer. Logical argumentation by dynamic proof systems. *Theoretical Computer Science* 781, pages 63–91, 2019.

36. O.Arieli, A.Borg, J.Heyninck. A review of the relations between logical argumentation and reasoning with maximal consistency. *Annals of Mathematics and Artificial Intelligence* 87(3), pages 187–226, 2019.
37. J.Heyninck, O.Arieli. Simple contrapositive assumption-based argumentation frameworks. *Journal of Approximate Reasoning* 121, pages 103–124, 2020.
38. A.Borg, C.Straßer, O.Arieli. A generalized proof-theoretic approach to logical argumentation based on hypersequents. *Studia Logica* 109(1), pages 167–238, 2021.
39. O.Arieli, A.Borg, J.Heyninck, C.Straßer. Logic-based approaches to formal argumentation. *Journal of Applied Logics The IfCoLog Journal of Logics and their Applications* 8(6), pages 1793–1898, 2021.
40. O.Arieli, J.Heyninck. Simple contrapositive assumption-based argumentation. Part II: Reasoning with preferences. *Journal of Approximate Reasoning* 139, pages 28–53, 2021.
41. O.Arieli, A.Borg, C.Straßer. A postulate-driven study of logical argumentation. *Journal of Artificial Intelligence* 322, Article 103966, 2023.
42. J.Heyninck, O.Arieli, B.Bogaerts. Non-deterministic approximation fixpoint theory and its application in disjunctive logic programming. *Journal of Artificial Intelligence* 331, Article 104110, 2024.
43. O.Arieli, J.Heyninck. Simple contrapositive assumption-based argumentation frameworks with preferences: Partial orders and collective attacks. *Journal of Approximate Reasoning* 178, Article 109340, 2025.
44. J.Heyninck, O.Arieli. Argumentative characterizations of (extended) disjunctive logic programs. *Theory and Practice in Logic Programming* 25(5), pages 896–923, 2025.
45. O.Arieli, C.Straßer. Representation considerations for logical argumentation frameworks: Minimality, consistency, compactness and logical preservation. *Journal of Argument and Computation*, 2026. Accepted.

## Refereed Papers in Conference Proceedings

1. O.Arieli, A.Avron. Logical bilattices and inconsistent data. *Proceedings of the 9th Annual IEEE Symposium on Logic in Computer Science* (LICS'94), pages 468–476, IEEE Press, July 1994.
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3. O.Arieli, A.Avron. Automatic diagnoses for properly stratified knowledge-bases. *Proceedings of the 8th IEEE International Conference on Tools with Artificial Intelligence* (ICTAI'96), pages 392–399, IEEE Press, November 1996.
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5. O.Arieli. A four-valued approach for handling inconsistency in prioritized knowledge-bases. *Proceedings of the 10th Annual Conference of the Florida Artificial Intelligence Research Society* (FLAIRS'97), pages 92–96, May 1997.
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9. O.Arieli. An algorithmic approach to recover inconsistent knowledge-bases. *Proceedings of the 7th European Conference on Logics in Artificial Intelligence* (JELIA'00), Lecture Notes in Artificial Intelligence No.1919, M.Ojeda-Aciego, I.P.de Guzman, G.Brewka, and L.M.Pereira, editors, pages 148–162, Springer, September 2000.
10. O.Arieli. Reasoning with modularly pointwise preferential relations. *Proceedings of the 12th Belgian–Dutch Artificial Intelligence Conference* (BNAIC'00), A. van den Bosch and H. Weigand, editors, pages 61–68, BNVKI Association, November 2000.
11. O.Arieli. B.Van Nuffelen, M.Denecker, M.Bruynooghe. Coherent composition of distributed knowledge-bases through abduction. *Proceedings of the 8th International Conference on Logic Programming, Artificial Intelligence and Reasoning* (LPAR'01), Lecture Notes in Computer Science No.2250, A.Nieuwenhuis, and A.Voronkov, editors, pages 620–635, Springer, December 2001.
12. O.Arieli, M.Denecker. Modeling paraconsistent reasoning by classical logic. *Proceedings of the 2nd International Symposium on Foundations of Information and Knowledge Systems* (FoIKS'02), Lecture Notes in Computer Science No.2284, T.Eiter and K.D.Schewe, editors, pages 1–14, Springer, February 2002.
13. O.Arieli. Paraconsistent semantics for extended logic programs. *Proceedings of the International Conference of Artificial Intelligence* (IC-AI'02), H.R.Arabnia and Y.Mun, editors, Vol.III, pages 1199–1205, CMSRA Press, June 2002.
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16. O.Arieli, M.Denecker, B.Van Nuffelen, M.Bruynooghe. Database repair by signed formulae. *Proceedings of the 3rd International Symposium on Foundations of Information and Knowledge Systems* (FoIKS'04), Lecture Notes in Computer Science No.2942, D.Seipel and J.Turell–Torres, editors, pages 14–30, Springer, February 2004.
17. B.Van Nuffelen, A.Cortés-Calabuig, M.Denecker, O.Arieli, M.Bruynooghe. Data integration using ID-logic. *Proceedings of the 16th International Conference on Advanced Information Systems Engineering* (CAiSE'04), Lecture Notes in Computer Science No.3084, A.Persson and J.Stirna, editors, pages 67–81, Springer, June 2004.
18. O.Arieli. Paraconsistent preferential reasoning by signed quantified Boolean formulae. *Proceedings of the 16th European Conference on Artificial Intelligence* (ECAI'04), R.López de Mántaras and L.Saitta, editors, pages 773–777, IOS Press, August 2004.
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21. B.Van-Nuffelen, O.Arieli, A.Cortés-Calabuig, M.Bruynooghe. An ID-logic formalization of the composition of autonomous databases. *Proceedings of the 8th International Conference on Logic Programming and Nonmonotonic Reasoning* (LPNMR'05), Lecture Notes in Artificial Intelligence No.3662, C.Baral, G.Greco, N.Leone and G.Tarracina, editors, pages 132–144, Springer, September 2005.
22. A.Cortés-Calabuig, M.Denecker, O.Arieli, B.Van-Nuffelen, M.Bruynooghe. On the local closed-world assumption of data-sources. *Proceedings of the 8th International Conference on Logic Programming and Nonmonotonic Reasoning* (LPNMR'05), Lecture Notes in Artificial Intelligence No.3662, C.Baral, G.Greco, N.Leone and G.Tarracina, editors, pages 145–157, Springer, September 2005.
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30. O.Arieli. Reasoning with prioritized data by aggregation of distance functions. *Proceedings of the 1st Conference on Artificial General Intelligence* (AGI'08), Frontiers in Artificial Intelligence, Volume 171, P.Wang, B.Goertzel, and S.Franklin, editors, pages 27–38, IOS Press, March 2008.
31. O.Arieli, A.Zamansky. Distance-based non-deterministic semantics. *Proceedings of the 1st Conference on Artificial General Intelligence* (AGI'08), Frontiers in Artificial Intelligence, Volume 171, P.Wang, B.Goertzel, and S.Franklin, editors, pages 39–50, IOS Press, March 2008.
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36. O.Arieli, A.Zamansky. Non-deterministic distance semantics for handling incomplete and inconsistent data. *Proceedings of the 10th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty* (ECSQARU'09), Lecture Notes in Artificial Intelligence No.5590, C.Sossai and G.Chemello, editors, pages 793–804, Springer, July 2009.
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41. O.Arieli, A.Avron, A.Zamansky. What is an ideal logic for reasoning with inconsistency? *Proceedings of the 22nd International Joint Conference on Artificial Intelligence* (IJCAI'11), T.Walsh, editor, pages 706–711, AAAI Press, July 2011.
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44. O.Arieli. Conflict-tolerant semantics for argumentation frameworks. *Proceedings of the 13th European Conference on Logics in Artificial Intelligence* (JELIA'12), Lecture Notes in Artificial Intelligence No.7519, L.Fariñas del Cerro, A.Herzig and J.Mengin editors, pages 28–40, Springer, September 2012.
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