

# List of Publications

Roberto Giuntini

## Books

1. M.L. Dalla Chiara, R. Giuntini, R. Leporini, G. Sergioli, *Quantum Computation and Logic: How Quantum Computers Have Inspired Logical Investigations*, Trends in Logics, Springer, 2018.  
(doi: [10.1007/978-3-030-04471-8](https://doi.org/10.1007/978-3-030-04471-8))
2. M.L. Dalla Chiara, R. Giuntini, E. Negri, R. A. Luciani, *From Quantum Information to Musical Semantics*, College Publications, London, 2012.
3. M.L. Dalla Chiara, R. Giuntini, F. Paoli, *Sperimentare la Logica*, Liguori, Napoli, 2004.
4. M.L. Dalla Chiara, R. Giuntini, R. Greechie, *Reasoning in Quantum Theory*, Kluwer, Dordrecht, 2004.  
(doi: [10.1007/978-94-017-0526-4](https://doi.org/10.1007/978-94-017-0526-4))
5. R. Giuntini, *Quantum Logic and Hidden Variables*, Bibliographisches Institut, Mannheim, 1991.

## Refereed journal articles

6. R. Giuntini, A. C. Granda Arango, H. Freytes, F. Holik, G. Sergioli, “Multi-class classification based on quantum state discrimination”, *Fuzzy Sets and Systems* **467**, 108509, 2023.  
(doi: [10.1016/j.fss.2023.03.012](https://doi.org/10.1016/j.fss.2023.03.012))
7. R. Giuntini, C. Mureşan, F. Paoli, “Semiorthomodular  $BZ^*$ -lattices”, *Fuzzy Sets and Systems*, **463**, 108472, 2023. (doi: [10.1016/j.fss.2023.01.0](https://doi.org/10.1016/j.fss.2023.01.0))
8. R. Giuntini, F. Holik, D. Park, H. Freytes, C. Blank, G. Sergioli, “Quantum-inspired algorithm for direct multi-class classification”, *Applied Soft Computing* **134**, 109956, 2023.  
(doi: [10.1016/j.asoc.2022.109956](https://doi.org/10.1016/j.asoc.2022.109956))
9. G. Sergioli, C. Militello, L. Rundo, L. Minafra, F. Torrisi, G. Russo, K.L. Chow, R. Giuntini, “A quantum-inspired classifier for clonogenic assay evaluations”, *Scientific Reports* 2021 Feb 2;11(1):2830.  
(doi: [10.1038/s41598-021-82085-8](https://doi.org/10.1038/s41598-021-82085-8))
10. R. Giuntini, C. Mureşan, F. Paoli, “PBZ\*-lattices: structure theory and subvarieties”, *Reports on Mathematical Logic* **55**, pp. 3–39, 2020.  
(doi: [10.4467/20842589RM.20.001.12433](https://doi.org/10.4467/20842589RM.20.001.12433))

11. G. Sergioli, R. Giuntini, H. Freytes, “A new quantum approach to binary classification”, *PLoS ONE* **14**(5): e0216224, 2019.  
(doi: [10.1371/journal.pone.0216224](https://doi.org/10.1371/journal.pone.0216224))
12. H. Freytes, R. Giuntini, G. Sergioli, “Holistic type extension for classical logic via Toffoli quantum gate”, *Entropy* **21**, 7:636, 2019.  
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13. G. Sergioli, G. Russo, E. Santucci, A. Stefano, S.E. Torrisi, S. Palmucci, C. Vancheri, R. Giuntini, “Quantum-inspired minimum distance classification in a biomedical context”, *International Journal of Quantum Information* **16**, pp. 1–15, 2018.  
(doi: [10.1142/S0219749918400117](https://doi.org/10.1142/S0219749918400117))
14. M.L. Dalla Chiara, R. Giuntini, G. Sergioli, R. Leporini, “A many-valued approach to quantum computational logics”, *Fuzzy Sets and Systems* **335**, pp. 94–111, 2018.  
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15. M.L. Dalla Chiara, H. Freytes, R. Giuntini, G. Sergioli, R. Leporini, “Probabilities and epistemic operations in the logics of quantum computation”, *Entropy* **20**, 11:837, 2018.  
(doi: [10.3390/e20110837](https://doi.org/10.3390/e20110837))
16. G. Sergioli, E. Santucci, L. Didaci, J. A. Miszczak, R. Giuntini, “A quantum-inspired version of the nearest mean classifier”, *Soft Computing* **22**, pp. 691–705, 2018.  
(doi: [10.1007/s00500-016-2478-2](https://doi.org/10.1007/s00500-016-2478-2))
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23. M.L. Dalla Chiara, R. Giuntini, R. Leporini, G. Sergioli, “A first-order epistemic quantum computational semantics with relativistic-like epistemic effects”, *Fuzzy Sets and Systems* **298**, pp. 69–90, 2016.  
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