



# Roberto Giuntini

*Curriculum Vitæ (April 25, 2018)*

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*Google Scholar* <http://scholar.google.it>

## SCIENTIFIC INTERESTS

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- Logico-algebraic structures of quantum mechanics and quantum computation
- Philosophy of physics
- Unsharp quantum logics
- Fuzzy logics and multi-valued logics
- Epistemic logics
- Theoretical computer science.

## APPOINTMENTS

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**Full Professor of Logic and Philosophy of Science** 2001-  
*Università di Cagliari*

**Visiting Professor** September-  
October 2017  
*Institute for Research in the Humanities (IRH-ICUB), University of Bucharest*

**President of the Italian Society for Logic and the Philosophy of Science** 2017–2020

**Visiting Professor** April 2017  
*Institute of Logic and Cognition, Sun Yat-Sen University, Guangzhou*

**Member of the Panels of the Italian Quality Research Assessment (ANVUR)** 2015–2017  
*Italian Ministry of Research and University*

<b>Habilitation as Full Professor of Mathematical Logic</b> <i>Italian Ministry of Research and University</i>	2014
<b>Visiting Professor</b> <i>Institute of Logic, Language and Computation, Amsterdam</i>	Winter 2012
<b>Visiting Scientist</b> <i>Alexander von Humboldt Stiftung, Institut für Philosophie II, Universität, Bochum</i>	Spring 2012
<b>Member of the Academic Senate</b> <i>Università di Cagliari</i>	2012-2013
<b>Director of the PhD Programme “History and Philosophy of Science”</b> <i>Università di Cagliari</i>	2006-2012
<b>Member of the Board of Directors</b> <i>On-line University of Sardinia</i>	2005-2006
<b>Delegate of the Chancellor for E-learning Teaching</b> <i>Università di Cagliari</i>	2005-2006
<b>Associate Professor of Logic and Philosophy of Science</b> <i>Università di Cagliari</i>	1998-2001
<b>Postdoctoral Fellow</b> <i>Università di Firenze</i> with Prof. Maria Luisa Dalla Chiara	1994-1996
<b>Alexander von Humboldt Fellow</b> <i>Institut für Theoretische Physik, zu Köln</i> with Prof. Dr. Peter Mittelstaedt	1987

## EDUCATION

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<b>PhD Logic</b> <i>Università di Firenze</i> “Hidden Variables and Quantum Logic” Thesis advisor: Prof. M. L. Dalla Chiara	1987-1991
<b>BS Logic and Philosophy</b> <i>Università di Firenze</i> Summa Cum Laude. Advisor: Prof. M. L. Dalla Chiara	1979-1984

## AWARDS

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- 1998 Birkhoff-von Neumann Prize, International Quantum Structure Association

## **FUNDING [ $\approx$ €500,000/10yr]**

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- European Community, “SYSMICS: Syntax Meets Semantics” (Participant), 2015-.
- Autonomous Region of Sardinia, “Visiting Professor Program” (Supervisor), 2006, 2008, 2010, 2012, 2017.
- Italian Ministry of Research and University, “Models and Inferences: Logical, Epistemological and Cognitive Aspects” (Local coordinator), 2013-2016.
- Autonomous Region of Sardinia, “Quantum Computational Structures and Pattern Recognition” (Principal investigator), 2013-2016.
- Italian Ministry of Research and University, “Contextuality, Non-locality and Lorentz Invariance: Physical, Epistemological and Logical aspects” (Local coordinator), 1999-2001.

## **SOME INVITED TALKS**

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33. Scuola Superiore di Catania, Catania, 2017
32. Dipartimento di Scienze Umanistiche, Università di Catania, Catania, 2017
31. Dipartimento di Filosofia e Comunicazione, Università di Bologna, Bologna, 2016
30. Quantum Mechanics and Quantum Information: Physical, Philosophical and Logical Approaches, Buenos Aires, 2016
29. Department of Physics, University of La Plata, La Plata, 2016
28. Institut of Mathematics, Slovak Science Academy, Bratislava, 2016
27. Irving K. Barber School of Arts and Sciences, University of British Columbia, Kelowna, 2015
26. Amsterdam Quantum Logic Workshop 2015, Amsterdam, 2015
25. Quantum Mechanics and Quantum Information. Physical, Philosophical and Logical approaches, Bruxelles, 2015
24. International Meeting on Quantum Correlation and Logic, Language and Set Theory, Indian Institute of Technology, Jodhpur, 2013
23. Institut für Philosophie II, Ruhr-Universität, Bochum, 2012
22. Institut für Theoretische Physik, Universität zu Köln, Köln, 2012
21. Institut of Mathematics, Slovak Science Academy, Bratislava, 2012
20. XIV International Summer School in Philosophy of Physics, Cesena, 2011
19. The Philosophy of Computer Science and Artificial Intelligence, Azores Islands, 2011
18. Logics Inspired by Quantum Computation, Bloomington, Indiana, 2009 .
17. Department of Physics, University of Pavia, Pavia, 2006

16. Natural Processes and Models of Computation, Bologna, 2005
15. ESF Scientific Network Conference, Budapest, 2005
14. Institut of Mathematics, Slovak Science Academy, Bratislava, 2004
13. University of Camerino, Camerino, 2004
12. V International Summer School in Philosophy of Physics, Cesena, 2002
11. Biannual Meeting of the International Quantum Structure Association, Vienna, 2002
10. Karl Popper 2002 , Vienna, 2002
9. Biannual Meeting of the International Quantum Structure Association, Liptovsky Jan , 1998
8. Forth Annual Meeting Florence-Stanford, Florence, 1997
7. Aspects of Mechanizing Inference, Naples , 1995
6. The Foundations of Quantum Mechanics, Cesena, 1994
5. Department of History and Philosophy of Science, University of Cambridge, Cambridge, 1994
4. The Foundations of Quantum Mechanics, Lecce, 1993
3. Ordered Structures, Naples, 1992
2. Institut für Theoretische Physik, Universität zu Köln, Cologne, 1989
1. Autumn School of Logic and Its Applications, “Unsharp properties and quantum logics”, Warsaw, 1988

## **REFeree ACTIVITY**

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International Journal of Theoretical Physics, Tatra Mountains Journal of Mathematics, Studia Logica, Journal of Philosophical Logic, Journal of Mathematical Analysis and Applications, Foundations of Physics, Algebra Universalis, Fuzzy Sets and Systems, Studies in History and Philosophy of Modern Physics.

## **PUBLICATIONS (full list of publications available in a separate document)**

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Author or co-author of more than one hundred of publications, among which :

- five monographies: *Quantum Logic and Hidden Variables*, Bibliographisches Institut, Mannheim, 1991; with M.L. Dalla Chiara and R. Greechie, *Reasoning in Quantum Theory*, Kluwer, Dordrecht, 2004; with M. L. Dalla Chiara and Francesco Paoli, *Sperimentare la logica* (in Italian), Liguori, Napoli, 2004; with M.L. Dalla Chiara, E. Negri, R. Luciani, *From Quantum Information to Musical Semantics*, College Publications, London, 2012; with M.L. Dalla Chiara, R. Leporini and G. Sergioli, *Quantum Computation and Logic*, Springer, Berlin, forthcoming.

- more than eighty works on international journals, among which “The Journal of Symbolic Logic”, “Studia Logica”, “Journal of Philosophical Logic”, “Journal of Logic and Computation”, “Algebra Universalis”, “Fuzzy Sets and Systems”, “Reports on Mathematical Logic”, “International Journal of Quantum Information”, “Quantum Information Processing”, “International Journal of Theoretical Physics”, “Foundations of Physics”, “Synthese”, “Fundamenta Informaticae”, “Soft Computing”, “Mathematica Slovaca”, “Mathware and Soft Computing”, “International Journal of General Systems”, “Communications in Algebra”, “Natural Computing”, “Annalen der Physik”, “Advanced Science Letters”.
- more than twenty papers in Collected works, among which one chapter in the “Handbook of Philosophical Logic”, one chapter in the “Encyclopedia of Applied Physics”, one chapter in the “Handbook of Quantum Logic”.

## **BIBLIOGRAPHICAL INDEXES**

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(calculated with the application “Publish or Perish”)

**h-index: 23**

**g-index: 40 hc-index: 14** hI-index:7.78, hI-norm:14, hI,annual:0.48

Papers: 121, Citations:1921, Years:29, Cites/year:66.24, Cites/paper: 15.88/6.0/multi, Cites/author:812.88,

Cites/author/year:28.03, Papers/author:49.41, Authors/paper:3.11/3.0/3,

AWCR:225.67, AW-index:15.02, AWCRpA:76.96, e-index:28.32, hm-index:14.83,” 2016-11-14”