

The CV Mauro Dorato

CURRENT OCCUPATION

Full Professor for the Philosophy of Science at the Department of Philosophy of the University of Rome 3 since 01.10.2005

EDUCATION

The Johns Hopkins University

- Ph. D. (May 1992)
- Diploma from the Center for History and Philosophy of Science (1989)
- M.A. in Philosophy (1988)

The University of Rome “La Sapienza”

- Laurea (i.e., BS+MS) in Mathematics (27 Jan. 1993)
- Laurea (i.e., BA+MA) in Philosophy (6 Dec. 1982)

FELLOWSHIPS AND RESEARCH ACTIVITIES AS VISITING SCHOLAR

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| April-June 2000, | Visiting scholar at the Edelstein center for history and philosophy of science, the Hebrew University of Jerusalem (cancelled due to COVID) |
| Summer 2015 | Visiting scholar at the Max Planck Institut für Wissenschaftsgeschichte for a project on the history of cosmology |
| Summer 2014 | Visiting Scholar at the Centre for Time, University of Sydney |
| Fall 2013 | Offer for a Visiting Fellowship Center for History and Philosophy of Science of the University of Pittsburgh, turned down |
| Summer 2012 | Visiting professor Department of Philosophy University of Bielefeld |
| 1995-1997 | Post-doc scholar at the University of Padua |
| Fall 1995 | Visiting scholar at the Center for History and Philosophy of Science of the University of Pittsburgh. |
| 1986-87: | Fullbright scholar at the Johns Hopkins University, Baltimore, MD. |

MEMBERSHIP IN INTERNATIONAL SOCIETIES

2024 Nomination to Member of the Division committee of the European Academy of the Sciences
<https://www.eurasc.eu/>)

2023 Nomination to ordinary membership of the European Academy of the Sciences
<https://www.eurasc.eu/>)

Since 2020 Fellow of the John Bell Institute for the Foundations of Physics (JBI)
<https://www.johnbellinstitute.org/>

Since 2016 Member of the Pond (Network of Philosophy of Science around the Mediterranean)
<https://pondposmed.wordpress.com/>

Since 2008 Corresponding member of the *Academie Internationale des Philosophie des Sciences*.
Nominated ordinary member in 2011. <https://www.aips.be/>

Since 2010 Member of the Academia Europaea (The Academy of Europe). <https://www.ae-info.org/>

SERVICES TO THE PROFESSION

- Former member of the steering committee of the European Philosophy of Science Association (created in 2007). <http://www.ucm.es/info/epsa07/>
- Co-chair of the Program Committee for the first conference of the European Philosophy of Science Association, to be held in Madrid in November 9-11 2007
<http://www.ucm.es/info/epsa07/>
- Member of the steering committee of the International Society for the study of spacetime (Concordia University, Montreal) <http://www.spacetimesociety.org/>
- Member of the Program Committee for the series of international conferences. The ontology of spacetime (Concordia University, Montreal)
- From 2008 to 2011 member of the steering committee of the Italian Society of Logic and Philosophy of Science (SILFS)
- 2012-2015 Director of the PH.D. joint program between Roma Tre University and Tor Vergata University. Since 2001 selected member of the Ph.D. program

- 2018 Member of the committee for the assessment of the didactic and scientific activity of the University
- 1/11/2018 until 01/04/2023 Delegate of the Rector for the University of Rome Three library system

EDITORIAL ACTIVITIES

2010-2012 Deputy editor of the *European Journal for Philosophy of Science*, (EJPS), Springer,

From 2012 to 2016 **co-editor** of the same journal with Carl Hoefer (Barcelona)

Member of the editorial board in

Axiomates

Epistemologia

Rivista di Filosofia

Colloquium Philosophicum

Epistemologia

Reti, Saperi, linguaggi. Italian journal of cognitive sciences

Epistemic Studies (directed by S. Hartmann, M. Esfeld)

ACTIVITY AS PEER REVIEWER FOR SCIENTIFIC JOURNALS:

Australasian Journal of Philosophy

British Journal for the Philosophy of Science,

Dialectica,

Entropy

Epistemologia,

Erkenntnis

European Journal for Analytic Philosophy,

European Journal for the Philosophy of Science

Foundations of Physics

Foundations of Science,

International Studies for the Philosophy of Science,

Mind

New York academy of science

Philosophical Transactions

Philosophy of Science,

Studies in the History and Philosophy of Modern Physics,

Studies in History and Philosophy of Science

Synthese

Theoria.

The Philosophical Quarterly

ACTIVITY AS PEER REVIEWER FOR PUBLISHING HOUSES

Elsevier, Oxford University Press, Routledge

ACTIVITY AS EXPERT FOR REVIEWING APPLICATION GRANTS

British Research Council AHRS,
Fund for Scientific Research-FNRS (F.R.S.-FNRS) Belgium
Israeli Science Foundation (ISF)
National Science Foundation (USA),
Netherlands Organisation for Scientific Research (NOW)
Swiss National Science Foundation, (2021)
The Dutch Research Council)
Member of expert for the European Science Foundations
Reviewer for the National Agency for the Evaluation of the University Research

DIRECTION OF GRANT PROJECTS

2022-2024

Principal Investigator in the research project financed by the Italian Ministry of the University and Research, *The Philosophical Reception of Quantum Theory in France and German-speaking Countries between 1925 and 1945: Conceptual Implications for the Contemporary Debate*. Prot. 20224HXFLY. Closing application 31/05/2022 Initial date of the grant 22/06/2023

2017-2020

Director of the Local Research Team in the research project financed by the Italian Ministry of the University and Research, *The Manifest Image and the Scientific Image*

2014-2017

Director of the Local Research Team for the research project Models and Inference in Science (Units belonging to the team University of Rome Roma 3, University of Milan La Bicocca, University of Bologna)

2000 until 2019

Participant in various research projects financed by the Italian Ministry of Public Education

TALKS AND INVITATIONS TO INTERNATIONAL WORKSHOPS AND CONGRESSES

2024

16/03 - 23 March

Santiago de Chile Invited speaker at the 4th conference on the philosophy of physics

09/04. April

Rome Phenomenology and interpretation of quantum mechanics

23/05

24/05 May

Keynote speaker for the workshop *Scientific Objectivity*, Barcellona
“The desirability of Scientific Objectivity”

29/05 November

Trento

Invited speaker

2023.

25-27 October

ZIFF Bielefeld, *Science in the Social Arena: How to Secure Public Credibility?* (invited speaker)

28-29 September

Contemporary Philosophy meets Philosophy of Science. Trends and Perspectives. inaugural conference for the Master in Philosophy of Science, Athens (invited speaker)

7-9 September

Alessandria, 15th SIFA conference: Who is Afraid of Philosophy? New Challenges for Contemporary Society

24-28 July

Quadrennial conference of the Logic Methodology History Philosophy of Science and Technology (LMHPST in Buenos Aires)

21 July

Online seminar for the Lisbon Group for the Philosophy of Physics (invited speaker)

25 June

Online seminar for the Cosmos Group organized by S. De Bianchi (invited speaker)

12-15 June

Athens, conference on laws and powers (invited speaker)

2022

December 28-29,

Invitation to Kolkata India. Topics: "Globalization"

" Spirituality and Morality", East and West"

18 November Conference on Rovelli's quantum mechanics, Cracow

7 July Iseed (Inclusive Science and European Democracies) roundtable on Good science across diversity of research environments, Venice

2021.

February: zoom meeting with the Hebrew University: Bohr's holistic philosophy of quantum mechanics (invited speaker)

With Rossanese: International conference on the ontology of quantum Physics. (invited speaker)

With Morganti 25th June: zoom International conference on Relational Quantum Mechanics

2020

30 /11 Philosophy of Physics Seminar, Faculty of Philosophy, Oxford (invited speaker)

1/12 Conference at the Corpus Christi College, Oxford (invited speaker)

1/05. General lecture Hebrew University, Cancelled due to COVID

21/11 Zoom Conference for the Edelstein Center at the Hebrew University of Jerusalem (invited speaker)

2019

9 April Einstein and Bergson, Physicist Philosopher, L'Aquila (invited speaker)

19-22 May, Experiencing Reality Directly , The Hebrew University (invited speaker)

18-22 June: Quantum limits of knowledge, Bohr Institute, Copenhagen (invited speaker)

2-5 September, Time after time Villa Maraini, Roma. (invited speaker)

11-12 September Biennial meeting of EPSA (accepted abstract)

11-12 September Biennial meeting of EPSA, Geneva (accepted abstract)

2018

1 May, Memorial Lecture in honor of Itamar Pitowsky, Hebrew University of Jerusalem (invited speaker)

17-18 May Philosophy of Time: A View from the Past, University of Milan (invited speaker)

11-13 June, Cracow, Modality in Physics (invited speaker)

18–20 June 2018. International Society for the study of time, Yonsei University, Seoul/Incheon, South Korea.

12-13-14 July, Budapest, Central European University, (invited speaker)

28-29-30 August, Summer School at the Swiss Institute of Culture, villa Maraini, Rome (invited speaker)

2017

Triennial congress of the Italian Society for Logic and Philosophy of science, University of Bologna, June the 23rd

Realism and Quantum Mechanics, University of Leeds, 13 September (invited speaker)

Bohr's philosophy of science, IMERA, Marseille, 25 September (invited speaker)

2016

4, 7 e 8 March Three Lectures at the Universidad Metropolitana de Mexico (UAM) on the philosophy of time

8 March Lecture at the Universidad Nacional Autonoma de Mexico (UNAM) on Realism and strumentalism on the wave function.

22-27 May, Lecture to the conference Carlo Rovelli's 60th birthday (Aix en Provence, Luminy, Merseille) (invited speaker)

8-11 May Conference in Wake Forrest University, NC for the biennial meeting of the Center for the philosophy of time

25-27 June invitation to participate to the Edinburgh conference of the Center for the Study of time,

3-6 September Participation in the workshop Philosophy of Science in the Mediterranean, Jerusalem (invited speaker)

2015

25 March Luxemburg European school (Scuola Europea)

27 March University di Geneva.

27 April University of Copenhagen

30 April University of Bergen, Norway (invited speaker)

7 May Univ. Oxford (invited speaker)

11 May Univ. of Liverpool (invited speaker)

27 May Munich, LMU (invited speaker)

3 July Max Planck Institut für Wissenschaftgeschichte (invited speaker)

9 September Urbino, 100 years from Einstein's General Theory of Relativity (invited speaker)

22-26 September European Society for Philosophy of Science biennial meeting EPSA 15 (invited speaker)

2014

13th May Conference in Gargnano (Garda Lake) on Time

14-19 May, Conference in Beijing on Science Values and Democracy

22th of May Conference in Barcelona on "spacetime and the wave function"

15th of September Oslo's Conference on Causation and Powers

3rd-4th of October, Oxford Conference on Power Structuralism

8-9 December, Conference on the limits of science, Granada

2013

Cologne, Causation and Structuralism, 8 February
Athens 3 March, metaphysics of scientific realism
Paris La Sorbonne 4 April. On scientific revolutions
Helsinki, 3 Conference of the European Philosophy of Science Association EPSA, 27- agosto-1-
settembre, On Feynman's diagrams
Louvain la Neuve, 18 October, Conference for in honor of Prof. M. Ghins

2012

Louvain-la Neuve 25-26 April
Heidelberg 4-6 June
Bielefeld 19 June
Hannover 20 June
COLLEGE DE FRANCE, 26 JUNE, participation to a conference on the 100th anniversary of the
discovery of cosmic rays
Oslo, 3-5 September, Conference on Causality and Modality
London, Metaphysics of Relation, 3-5 October
Urbino, November Conference with the Barcelona Group on Science and Metaphysics
Conference at the Georgia Institute of Technology. (November)
PSA 2012 meeting (accepted presentation)

2011

Persistence in Minkowski spacetime, University of Bonn, 13-14 February
Louvain la Neuve, Meeting of the Academie Internationale des Philosophies des Sciences 26-28
april,
Toronto 13-15 May, Metaphysics and the Philosophy of Science conference
Paris rationalité en situation, 10 December
Univ. of Leeds, conference at the dept. of philosophy 16 December. External examiner for a Ph.D.
viva

2010

13-15 December, European Science Foundation, London School of Economics, Points of Contact
between Physics and Biology
24 September, Commentator to S. Psillos on adding modalities to OSR (Padova, SIFA)
26 April, University of Konstanz

2009

4 December, University of Athens, On natural laws, workshop with Steven French
20 November, University of Bonn, On time and existence in special relativity
19 October, Presentation at the European Science Foundation Conference, Dreierbergen-Zeist, Holland
15 April, Presentation at the conference Metaphysics in Science, Dubrovnik

2008

2 April, Talk on Causal Power and Disposition in Hotel Sonloup, Les Avants, Lousanne, for the Congress Causation in Biomedical sciences. Philosophical and Historical aspects.
7, 8 9 May, Presentation at the Conference Pragmatism and Naturalism, Tilburg, The Netherlands
11 June, Presentation at the conference Time and the Universe Tau (Montreal)
13 June, Presentation at the 3rd Conference The Ontology of Spacetime, Concordia Montreal
15-16 September, Presentation to Conference organized by the Academie de Philosophie de Sciences on Natural and Human sciences
19 December, Commentator of D. Dieks paper at the meeting European Science Foundations, Vienna, Section Philosophy of Physics

2007

29-31 March, “Do dispositions and propensities have a role in the philosophy of quantum mechanics?”, 15th UK and European Meeting on the **Foundations of Physics**, University of Leeds
10-11 September, Connecting objective becoming with the conventionality of simultaneity, presented at the Boston Colloquium for the Philosophy of Science: Italian Trends in the Philosophy of Science
9 October, Congress of the Italian society of logic and philosophy of science (SILFS) (Commentary to Carlo Rovelli’s paper)
17 October, Participation to the congress *Autonomy of Reason?* Rome
27 October, Conference to the Festival della scienza (festival of science) Genoa
6 November, International conference in Honor of H. Putnam
29 November, Seminar in Louvain la Neuve on the role of mathematics in laws of nature
30 November, Seminar in Bruxelles on Becoming in physics and psychology

2006

8-11 June, Presentation at the Second conference on the Ontology of spacetime, Montreal, University of Concordia
14-18 June, Presentation to the first Congress of History of Philosophy of Science Society in Paris
6-7 October, Presentation at the conference *Probabilities, Causes and Propensities in Physics* (Universidas Complutense, Madrid)
13-14 October, Presentation “Structural spacetime realism and the evaporation of the substantialism-relationism debate” for the meeting “Physics meets Philosophy at every scale”, Parma

2005

17-21 January, Presentation at the conference Endophysics, Time, the Quantum and the Subjective, Zentrum für Interdisziplinäre Forschung, Bielefeld

27-31 August, Two presentations: one at the European Congress for Analytic Philosophy; the other at the special symposium "Quantum information and philosophy", both held in Lisbon
5-10 September, Congress in Losini for the 70th birthday of G.C. Ghirardi

2004

7-8 May, Presentation at the conference "The Arrow of Time in Physics and Philosophy", organized at the l'ULB of Louvain, Belgium, by Michel Ghins on account of the European Science Foundation
11-14 May, Presentation at the conference *The Ontology of Spacetime*, held at the Concordia University, Montreal, Canada. For this conference I have contributed to evaluate the submitted papers and to organize the sessions
15-19 July, Presentation at the conference "Time in the Natural sciences" at the Center for Time at the University of Sydney
11-13 October, Presentation at the conference "God and the Laws of nature", Varenna, Italy
29-30 November, organization of the workshop *Time in Physics and Philosophy*

2003

May 8, Seminar at the Dept. of Physics at the University of Florence: "Why are most laws of nature mathematical?"
25-29 August, Talk at the International conference on the relation between mathematics and physics, Losinj, Croatia
8-11 October, Conference at the meeting "Reason and Reasonableness"
26-28 November, The nature of scientific explanation University of Milano "Bicocca"

2002

19-21 September, Presentation of a paper at the international meeting organized by Paris X Nanterre and by the Ecole Polytechnique on Causal Power and Dispositions
3-6 October, Sixth meeting of the Pittsburgh-Konstanz colloquium at the University of Pittsburgh
28-30 November, Commentator at the IX meeting of the Italian-Spanish philosophy

2001

24-27 May, "Language Rules and Laws of Nature" *The 5th Baltic Workshop on Logic and Philosophy of Science*.
4-8 June, Invitation to present "Determinism, Chance and Freedom, at the international congress on *Determinism*, Tegernsee, Freiburg
17-21 June, History and philosophy of cosmology (Monteporzio)
28 June, Seminar at the Institut für Grenzgebiet der Psychologie und Psychohygiene (Freiburg)

2000

2-4 November, Talk at the PSA 2000 meeting in Vancouver
4-6 October, Talk at the meeting of the Italian Society for Analytic Philosophy

27-29 September, Talk at the meeting on the philosophy of time at the London School of Economics, for the Royal Series in Philosophy, 2000

1999

20-26 August, Congress of the Logic Methodology and Philosophy of Science, Cracow, Poland
Invited lecture on the philosophy of space and time for the philosophy of physics session

1998

21-25 October, PSA 98 meeting in Kansas City, USA
Participation to the symposium *Special Relativity and Ontology*; (the title of my paper is “Becoming and the arrow of causation”), co-symposiasts J. Balashov and S. McCall, commentator R. Clifton.
23-25 September Bologna
Italian congress of the society for analytic philosophy.

1997

17-20 April. Triest, Italy
Invitation to present “Gödel’s two relativistic arguments for the ideality of time” at the international conference organized by the SIFF (Italian Society for the Philosophy and the Foundations of physics).

1996

5-8 September, Leeds, England
Invitation to present the paper “Mental causation and the reality of tenses” at the congress of the ESAP (European Society for Analytic Philosophy).
19-26 May, Castiglioncello, Italy
Commentator in the section “Space and Time” to John Norton’s and Andreas Bartel’s papers, presented at the annual meeting of the Fellows of the Center for History and Philosophy of Science of the University of Pittsburgh.
14 May, Cambridge, England
“The tensed theory of time and spacetime physics”, paper presented at the Department of philosophy of the University of Cambridge.

1995

29 September 1995, Pittsburgh
Talk for the Lunchtime Colloquium Series “On Becoming, Relativity, Nonseparability”.
19-25 August, Florence
“Becoming in Minkowski spacetime”, presented at the 10th International Congress of Logic, Methodology and Philosophy of science in the section philosophy of physics.
24-28 May, Parma Italy
“Measurability, computability and the existence of theoretical entities”, presented at the International congress of the Académie de Sciences.

18-21 May, Poel, Germany

“Three views of the relationship between time and reality”, presented at the International congress on the philosophy of time, organized by J. Faye, M. Urchs and Scheffler.

1993

19 e 26 November, Vienna, Austria

Two seminars on Tarski’s indefinability theorem within the course held by prof. Herbert Hrachovec of the University of Vienna on Gödel’s incompleteness theorems (Gödel Unentscheidbarkeitsbeweis).

LIST OF PUBLICATIONS (IN ENGLISH)

Monographs

1995

Time and Reality. Spacetime physics and the objectivity of temporal becoming. CLUEB, Bologna, 1995.

Reviews of Time and Reality:

C. Callender (London School of Economics), *The British Journal for the Philosophy of Science*, 48, n.1, March 1997, p.117-120.

J. Faye (University of Copenhagen), “Dorato on Time and Reality”, *Epistemologia*, 20, pp. 355-372, 1997.

R. Le Poidevin (University of Leeds), “Relative Realities”, *Studies in History and Philosophy of Physics*, vol.28, n.4, 28, no.4, pp. 541-546, 1998.

2005

The Software of the Universe. An Introduction to the History and Philosophy of the Laws of Nature, Ashgate, 2005

Reviews of The Software of the Universe

J. Roberts, *Studies in History and Philosophy of Modern Physics*, 37 (2006), pp. 738–744

E. Tobin, *International Studies in Philosophy of Science*, 2008, n.3, 230-233.

M. Schrenk, *British Journal for the Philosophy of Science*, 2011, n.62, 225-232.

2023

Science and Representative Democracy, Bloomsbury, 2023

Review:

Jan Faye - Good will or lost opportunity, *Metascience* 32 (1):115-119, 2023.

Edited Books

3. M. Suarez, M. Dorato, and M. Redei (eds.), *EPSA Epistemology and Methodology of Science. Proceedings of the first conference of the European Philosophy of Science Association*, Springer, Dordrecht, 2 voll, 2010.

4. M. Dorato M. Morganti, (eds.) *Current and Historical Perspectives on the Use of Models in Physics, Chemistry and Life Sciences*, Part H of the *Springer Handbook of Model-Based Science*, volume editors L. Magnani and T. Bertolotti), Springer, Berlin (with Matteo Morganti).

Papers in peer-reviewed journals

2023.

With Bassi, A. and Ulbricht H. *Collapse Models: A Theoretical, Experimental and Philosophical Review*, in *Entropy* 2023, 25, 645. <https://doi.org/10.3390/e25040645>

Physical time within human time, in *Frontiers Psychol.*, 26 May 2023

Sec. Theoretical and Philosophical Psychology Volume 14 - 2023 | by Gruber, R. P., Block, R. A., and Montemayor, C. (2022). *Front. Psychol.* 13:718505.

doi: [10.3389/fpsyg.2022.718505](https://doi.org/10.3389/fpsyg.2022.718505)<https://doi.org/10.3389/fpsyg.2023.1110386>

On Sellars' attempt to build a synoptic image of the world, in *Argumenta*, 16 (2023): 327-338
ISSN 2465-2334

<https://www.argumenta.org/article/on-sellars-attempt-to-build-a-synoptic-image-of-the-world/>

DOI 10.14275/2465-2334/202316.dor

2022

With Morganti, M. What Ontology for Relational Quantum Mechanics? *Foundations of Physics* (2022) 52:66 <https://doi.org/10.1007/s10701-022-00581-x>

2021

The Affective and Practical Consequences of Presentism and Eternalism, *Argumenta*, 1-19 © 2021 University of Sassari ISSN 2465-2334.

<https://www.argumenta.org/article/affective-practical-consequences-presentism-eternalism/>

DOI [10.14275/2465-2334/20210.dor](https://doi.org/10.14275/2465-2334/20210.dor)

With C. Hoefer, (2021), "Nothing to come in a relativistic setting", *Disputatio*, Vol. XIII, No. 63, December 2021, pp. 333-344. Published Online: 26 Apr 2023

DOI: <https://doi.org/10.2478/disp-2021-0025>

2020

Bohr meets Rovelli: a dispositionalist account of the quantum limits of knowledge, *Quantum Studies: Mathematics and Foundations*, <https://doi.org/10.1007/s40509-020-00220-y> ISSN: 2196-5609 (Print) 2196-5617 (Online)

2019

with Marc Wittmann The phenomenology and cognitive neuroscience of experienced temporality *Phenomenology and the Cognitive Sciences*, 1-25 DOI 10.1007/s11097-019-09651-4

Review of Simon Prosser's Experiencing Time, *Philosophy of Science*, October, 2019 Volume 86 Issue 4, 807-813, <https://doi.org/10.1086/704971>

Laws of nature and the reality of the wave function, in *Synthese* 192, 10, October 2015, pp. 3179-3201--- DOI 10.1007/s11229-015-0696-2, <http://arxiv.org/abs/1503.01137>

Presentism and the Experience of Time, *Topoi*: Volume 34, Issue 1 (2015), Page 265-275, ISSN 0167-7411, DOI 10.1007/s11245-014-9272-5

Causal versus structural explanations in scientific revolutions, in *Synthese*, 2014, p.1-21, DOI: 10.1007/s11229-014-0546-7

with Matteo Morganti, "Grades of Individuality. A pluralistic view of identity in quantum mechanics and the sciences", *Philosophical Studies* (2013) vol. 163, n.3 pp. 591-610, DOI .1007/s11098-011-9833-z

Presentism/Eternalism and Endurantism/Perdurantism: why the unsubstantiality of the first debate implies that of the second, *Philosophia Naturalis* 49, 1, pp.25-41

"The natural ambiguity of the notion of "natural", and how to overcome it", *Epistemologia*, XXXV, pp.247-263, 2012

Putnam on time and special relativity, *European Journal Analytic Philosophy*, vol.4, n.2, pp. 51-70, rreply 2008, (with a "Reply to Mauro Dorato", by Hilary Putnam, *European Journal Analytic Philosophy*, vol.4, n.2, 2008, pp.71-73)

with Michael Esfeld, "GRW as an ontology of dispositions", in *Studies in History and Philosophy of Modern Physics*, 2010, 41, pp. 41-49.

Papers in peer-reviewed books

2023

With M. Cadona, A dialogue about gravity, in *New Challenges and Opportunities in Physics Education* (eds): M. Streit-Bianchi, M. Micheleni, W Bonivento, M Tuveri, Springer, pp. 65-79

2022

The Consequence Argument and an Ontology of Dispositions, in *Powers, Time and Free Will* (Roselli A., Marmodoro A., Austin C. eds.), Springer, pp. 227-255.

2021

Some contemporary reflections on *Bergson's Time and free will. Essay on the immediate given of Consciousness* (Essai sur les données immédiates de la conscience - 1889), Alessandra Campo (ed) *The quarrel of time. Einstein vs Bergson*, De Gruyter: Berlin pp-65-82

The Relation between Physics and Metaphysics. pp.169-184. In Experience, Abstraction and the Scientific Image of The World. Festschrift for Vincenzo Fano on his 60th Birthday - ISBN:978-88-351-2139-8 Dorato, Mauro

2020

Atoms and Time II, in *Atomism in Philosophy: A History From Antiquity To The Present* (ed. by U. Zilioli), Bloomsbury, London, p.342-355.

Agents in Healey's Pragmatist Quantum Theory: A Comparison with Pitowsky's Approach to Quantum Mechanics, In *Quantum, Probability, Logic* (eds. M. Hemmo, Orly Shenker) Springer, p. 233-256
Jerusalem Studies in Philosophy and History of Science

ISSN 2524-4248 ISSN 2524-4256 (electronic)

ISBN 978-3-030-34315-6 ISBN 978-3-030-34316-3 (eBook)

<https://doi.org/10.1007/978-3-030-34316-3>

2018

with Emanuele Rossanese, "The Nature of Representation in Feynman Diagrams" in *Perspectives in Science*, Special Issue edited by J. Brown, Volume 26, Number 4, July-August 2018, The Mit Press, pp. 443-458

with Laura Felling, "On explaining non-dynamically the quantum correlations via Quantum Information Theory: what it takes", in Sven Hansson (ed), *Technology and Mathematics*, Springer, pp.235-25

2017

"Bohr's Relational Holism and the classical-quantum Interaction", in H. Folse, J. Faye (eds.), *Niels Bohr and Philosophy of Physics: Twenty First Century Perspectives* Bloomsbury Publishing, London, UK, 2017, pp.133-154. <http://arxiv.org/abs/1608.00205>

with M. Morganti, Models in Physics, Chemistry and Life Sciences Springer Handbook of Model-Based Science – Volume Editors: Lorenzo Magnani and Tommaso Bertolotti, 2017

(with M. Morganti). Current and Historical Perspectives on the Use of Models in Physics, Chemistry and Life Sciences (editorial work for and introduction to Part H of the Springer Handbook of Model-Based Science, editors L. Magnani and T. Bertolotti), Springer, Berlin, pp.840-842.

2016

Rovelli's Relation Quantum Mechanics, Anti-monism And Quantum Becoming, in Marmodoro, A., Yates D. (eds) *The Metaphysics of Relations*, Oxford University Press, 235-261.

2015

The physical world as a blob: is OSR really realism? In *Metascience, special issue on Steven French, The structure of the world*, Oxford University Press, Oxford, DOI: 10.1007/s11016-015-0031-z

With Marc Wittmann, (2019), The now and the passage of time, *KronoScope* 15 (2015) 191-213, Koninklijke, Brill NV, Leiden,| doi 10.1163/15685241-12341335

The naturalness of the naturalistic fallacy and the ethics of nanotechnology”, in Hansson S.O. (ed), *The Role of Technology in science. Philosophical perspectives*, Springer, pp. 207-224.

with Esfeld M. “Primitivism and Dispositionalism about Laws”, in Bygai T. Wüthrich C. (eds), *Metaphysics in Contemporary Physics*, (Poznań Studies in the Philosophy of the Sciences and the Humanities, vol. 103), Amsterdam/New York, NY: Rodopi, 2015, pp. 333-354.

Events and the Ontology of Quantum Mechanics, in *Topoi*, DOI:10.1007/s11245-015-9315-6 TOPO-D-15-00013.0, (2015) <http://arxiv.org/abs/1503.01140>

2014

With Laudisa F. “The ontological status of the wave function”, in S. Gao (ed.) *Protective Measurement*, Cambridge University Press, 2015, pp.119-144

2013

“How to combine and not to combine science and metaphysics” In V. Karakostas and D. Dieks (eds.), *EPSA11 Perspectives and Foundational Problems in Philosophy of Science*, The European Philosophy of Science Association Proceedings 2, DOI 10.1007/978-3-319-01306-0__24,, © Springer International Publishing Switzerland 2013, pp. 295-305.

2012

with A. Cei, Preface to “Physics, philosophy and bridging two gaps. In honor of Sir Michael Dummett, in A. Cei, M. Dorato (eds.) *European Journal of Analytic Philosophy*, vol.8, No.1, 2012, with contributions by Jeremy Butterfield, Holger Lyre, Jan Faye, Steven French and Kerry Mckenzie , Thomas Ryckman, Dennis Dieks.

2011

Dispositions and propensities in the ontology of quantum mechanics: some critical remarks”, in M. Suárez (ed.) "Probabilities, Causes, and Propensities in Physics", Synthese Library, Springer, pp. 197-218, DOI 10.1007/978-1-4020-9904-5_9, 2011.

"Truth, laws and the progress of science", in Manuscrto. *Revista Internacional de Filosofia*, E. Agazzi, I. D'Ottaviano, D. Mundici (eds.), Science Truth and Consistency, 2011, v. 34, n. 1, p. 185-206, ISSN 0100-6015

with Carl Hoefer, “Editorial”, *European Journal for Philosophy of Science: Volume 1, Issue 1* (2011), Page 1. DOI: 10.1007/s13194-011-0021-y

with Feline L., “Structural explanation and scientific structuralism”, in A. Bokulich and P.

Bokulich (eds.), *Scientific Structuralism*, Boston Studies in Philosophy of Science, Springer, 2011, pp.161-176 DOI 10.1007/978-90-481-9597-8_9.

“Mathematical biology and the existence of biological laws”, in D. Dieks, W. Gonzales, S. Hartmann, T. Uebel, M. Weber (eds), *Probabilities, Laws and Structure*, Springer, 2011, pp.109-121, DOI 10.1007/978-94-007-3030-4_8

The Alexandroff present and Minkowski spacetime: why it cannot do what it has been asked to do, in D. Dieks, W. Gonzales, S. Hartmann, T. Uebel, M. Weber (eds.), *Explanation Prediction and Confirmation. New trends and old ones considered*. Springer, 2011, pp. 379-394.

2010

Physics and Metaphysics: Interaction or Autonomy?, in C. Calosi (ed), *HumanaMente*, <http://www.humanamente.eu/>, 2010.

“Why is the Language of Nature Mathematical?” in G. Antonini, A. Altamore (eds.), *Galileo and the Renaissance Scientific Discourse*, Edizioni Nuova Cultura, Roma, 2010, pp.65-71.

On Various Senses Of “Conventional” And Their Interrelation In *The Philosophy Of Physics: Simultaneity As A Case Study*, in F. Stadler (ed.) together with D. Dieks, W. Gonzales, S. Hartmann, T. Uebel, M. Weber, *The Present Situation in the Philosophy of Science*, Springer, 2010, pp. 335-349.

with Felling L., “Structural explanations in Minkowski spacetime: which account of models?”, in V. Petkov (ed.) *Space, Time, and Spacetime - Physical and Philosophical Implications of Minkowski's Unification of Space and Time*, Springer, Berlin, Heidelberg, New York, 2010, pp. 189-203.

“The historicization of nature and the nomologization of the mental, or the rapprochement between the natural and the human sciences”, in E. Agazzi e C. Di Bernardo (eds.), *Relations between Natural Sciences and Human Sciences. Relations entre les sciences naturelles et les sciences humaines*, Special Issue of *Epistemologia*, 15, 2010, pp. 243-258.

2009

“Peirce’s method of tenacity and the method of science: the consistency of pragmatism and naturalism”, in R. Dottori (ed.), *Autonomy of Reason? Autonomie der Vernunft?, Proceedings of the V Meeting Italian-American Philosophy*, LIT Verlag, Vienna, 2009 pp.154-164.

2008

“Is structural spacetime realism relationism in disguise? The supererogatory nature of the substantivalism/relationism debate, in D. Dieks, *The ontology of spacetime II*, Amsterdam, Elsevier, 2008, pp.17-37.

2007

“Dispositions, relational properties and the quantum world”, in *Dispositions and Causal Powers*, M. Kistler and B. Gnanasonou (eds.), Routledge, 2007, pp.249-270.

“Review article: Relativity Theory between Structural and Dynamical Explanations”,
International Studies in the Philosophy of Science, Vol. 21, No. 1, March 2007, pp. 95–102

2006

“The irrelevance of the presentism/eternalism debate for the ontology of Minkowski spacetime”, in D. Dieks (ed.), *The Ontology of Spacetime*, Elsevier, 2006, pp. 93-109.

with Massimo Pauri, “Holism and Structuralism in Classical and Quantum General Relativity”, in D. Rickles, S. French, and J. Saatsi (eds), *The Structural Foundations of Quantum Gravity*, Oxford University Press, Oxford, 2006, pp.121-151.

“Properties and Dispositions: some Metaphysical Remarks on Quantum Ontology”, in A. Bassi, D. Dürr, T. Weber, N. Zanghì (eds.), *Quantum Mechanics*, American Institute of Physics (AIP) Conference Proceedings, Vol. 844, 2006, pp. 139-157.

“Absolute becoming, relational becoming and the arrow of time: Some non-conventional remarks on the relationship between physics and metaphysics”, *Studies in History and Philosophy of Modern Physics*, Volume 37, Issue 3 , September 2006, 559-576, reprinted in *The Philosophy of Time*, N. Oaklander (ed.), vol IV, Routledge, Critical Concepts in Philosophy, London, 2009, pp. 254-276.

2005

“The Laws of Nature and the Effectiveness of Mathematics”, in Boniolo G., Budinich P., Trobok M. (eds.), *The Role of Mathematics in Physical , Interdisciplinary and Philosophical Aspects*, Springer, Dordrecht, 2005, pp.131-144 (reviewed by U. Bottazzini, Il SOLE 24 ORE, Sunday 10.7.05)

Becoming, Events and the Ontology of Quantum Physics, in Buccheri R., Elitzur A. and Saniga M. (eds.), *Endophysics, Time, Quantum and the Subjective*, Singapore, World Scientific, 2005, pp.273-289.

. “On the technological and theological roots of the notion of “law of nature”, in *Dio, la Natura e la Legge, God and the Laws of Nature*”, in E. Sindoni and S. Moriggi (eds.), Proceedings of the international conference Villa Monastero, Varenna, Italy, 11-13 Ottobre 2004, Angelicum, Mondo X, 2005, Milano, pp. 155-169.

“Why are (most) laws of nature mathematical?”, in Faye J., Needham P., Scheffler U. and Urchs M. (eds.), *Nature’s Principles*, Springer, Dordrecht, 2005 pp. 55-75.

“Becoming and the conventionality of simultaneity”, in Dottori R. (ed.), *Reason and Reasonableness. Vernunft und Vernünftigkeit*, Lit Verlag, Münster, 2005, pp. 47-69.

2004

“Epistemic and non-Epistemic Values in Science”, in P. Machamer and G. Wolters (eds.), *Science, Values and Objectivity*. University of Pittsburgh Press, Pittsburgh-Konstanz, 2004, pp. 53-77.

2003

“Cognitive Norms, the Methodology of Science and the Naturalization of Ethics”, in R. Egidi, M Dell’Utri, M. De Caro (eds), *Normatività, fatti e valori* (Normativity, facts and values), *Analisi Filosofiche*, Macerata, 2003, pp. 1163-172.

“How legitimate is to talk about an evolving or a becoming universe?” in S. Colafrancesco, G. Giobbi, (eds.) *Cosmology Through Time*, Mimesis, Milan, 2003, pp. 247-253.

2002

“Determinism, Chance and Freedom”, in H. Atmanspacher e R. Bishop (eds.), in *Between Chance and Choice*, Imprint Academic, 2002, pp. 339-369.

The Question of the Reality of Time and the Model-Theoretic Approach to Scientific Theories”, in *Logique et Analyse*, 164 (1998), 313-325.

with J. Faye, “Causation, Mental causation and the Laws of Nature”, in L&PS (Logic and Philosophy of Science), on line journal, <http://www.units.it/~dipfilo/episteme/>

“On Becoming, Cosmic Time and Rotating Universes”, in C. Callender (ed.), *Time, Reality and Experience, Proceedings of the Royal Institute of Philosophy Conference for 2000*, Cambridge University Press, Cambridge, 2002, pp. 253-276

“Kant, Gödel and Relativity”, in P. Gardenfors, J. Wolenski, and K. Kijania-Placek (eds.), *In the Scope of Logic, Methodology and Philosophy of Science, Proceedings of the Invited Lectures for the 11th International Congress of Logic Methodology and Philosophy of Science*, Synthese Library, Kluwer, Dordrecht, 2002, vol. I, pp. 331-348.

2000

“Measurability, computability, and the problem of the existence of theoretical entities”, in E. Agazzi and M. Pauri (eds.), *The Reality of the Unobservable*, Kluwer, Dordrecht, 2000, pp.207-217.

“Substantivalism, Relationism, and Structural Spacetime Realism”, *Foundations of Physics*, 2000, 30, pp. 1605-1628.

“Facts, events, things, and the ontology of physics”, in J. Faye, M.Urchs, U.Scheffler (eds.), *Things Facts and Events*, Poznan Studies in the Philosophy of the Sciences and the Humanities, 76, 2000, pp. 343-364.

“Becoming and the Arrow of Causation”, *Philosophy of Science*, 67, 2000, pp. S523-534.

1999

“The conflict between a static and a dynamic theory of time in its relation to von Wright’s work and to human freedom”, in R. Egidi (ed.), *Study of Mankind in the Philosophy of Georg Henrik von Wright*, Kluwer, Dordrecht, 1999, pp. 131-138.

“Cao on Substantivalism and the Development of 20th Century Field Theories”, *Epistemologia*, 22, 1999, pp.151-166.

“Time, relativity and the spatiality of mental events’, in Language, Quantum, Music. *Selected Contributed Papers of LMPS 95*, a cura di M. L. Dalla Chiara, R. Giuntini, F. Laudisa, Kluwer, Dordrecht, 1999, pp. 197-207.

1997

“Three Views on the Relationship between Time and Reality”, in J. Faye, U. Scheffler, M.Urchs (eds.), *Perspectives on Time*, Boston Studies in the Philosophy of Science, vol. 189, Kluwer, Dordrecht, 1997, pp. 61-92.

1996

“On Becoming, Relativity, and Nonseparability”, *Philosophy of Science*, 64, 4, 1996, pp.585-604.

1995

“Ontological Determinateness in Quantum Mechanics and Special Relativity”, in Garola C. and Rossi A. (eds.), *The Foundations of Quantum Mechanics*, Dordrecht, Kluwer, 1995, pp. 201-211.

1994

“Objective temporal becoming and spacetime physics”, *Proceedings of the triennial congress of the Italian Society of Logic and Philosophy of the Sciences (SILFS)*, held in Lucca on 7-10 Jan. 1993, ETS, Pisa, Italy, 1994, pp. 367-383.

1993

“The problem of the relationship between time and motion from Descartes to Newton”, in S. Tweyman (ed.), *Studies in Early Modern Philosophy*, Caravan Books, Delmar, New York, 1993, 3, pp.127-156.

1992

“Methodology of science as a branch of ethics?”, *Methodologia*, 10, vol.VI, 1992, pp. 14-35.
1988

“The world of the worms and the quest for reality”, *Dialectica*, 42, 1988, pp. 171-182.

1987

The frequency theory of probability and single events”, *Epistemologia*, 10, 1987, pp. 323-334.

Reviews:

“A new role for philosophy in scientific revolutions” (review of Di Salle’s book *Understanding Spacetime*) *Metascience*, 17, pp.61-64, 2008.

Review of W. L. Craig, *Time and the Metaphysics of Relativity*, Kluwer, 2000, in *Studies in History and Philosophy of Modern Physics*, Volume 34, Issue 1, March 2003, pp. 154-158.

Review of Ferrari M. and Stamatescu I.-O. (eds.), *Symbol and Physical knowledge*, Springer, 2001, *International Journal for Philosophy of Science*, 2003, 17.1, pp.95-97.

Review of John Earman's *Bangs, Crunches, Whimpers, and Shrieks*, in *British Journal for the Philosophy of Science*, vol. 49, n. 2, June 1998, pp. 338-347.

PUBLICATION IN FRENCH

“Dispositions, propriétés relationnelles et monde quantique”, M. Kistler and B. Gnassonou (eds.), *Causes et dispositions*, Presse Universitaires de France, Paris, 2006, pp.195-219.

71. “Aristote au pays des quanta”, in *Science et Avenir*, Hors-Serie n 148, October-November 2006, p. 41.

PUBLICATIONS IN ITALIAN

Edited books:

1. *La legge di natura. Analisi storico-critica di un concetto*, (*Laws of nature: a Historico-Critical Analysis of a Concept*), G. Boniolo and Mauro Dorato (eds.), McGraw Hill Italia, Milano, 2001
2. Albert Einstein e Max e Hedwig Born, *Scienza e Vita, 1916-1955*, Mimesis, 2015.

Books in Italian

3. *Il Tempo. Cosa accade quando non accade nulla*, Carocci, Roma 2024
4. *Disinformazione scientifica e democrazia. L'autonomia del cittadino e la competenza degli esperti*. Cortina, Milano, 2019.
5. *Cosa c'entra l'anima con gli atomi? Introduzione alla Filosofia della scienza, second enlarged edition* Roma, Laterza 2017
6. [Che cos'è il tempo? Einstein, Gödel e l'esperienza comune, \(What is time? Einstein, Gödel and common experience\) Carocci, Roma \(quality paperback\) 2013](#). Review of the book by Carlo Rovelli, *Il Sole* 24, June 2013.
7. *Cosa c'entra l'anima con gli atomi? Introduzione alla filosofia della scienza*, (What has the soul got to do with atoms? Introduction to the philosophy of science), Laterza, Roma-Bari, 2007.
8. with Allori, V., Laudisa, F. Zanghì, N., *La natura delle cose. Introduzione ai fondamenti e alla filosofia della fisica* (The Nature of Things. Introduction to the foundations and philosophy of physics). Carocci, Roma, 2005.
9. *Il software dell'Universo. Saggio sulle leggi di natura*. Bruno Mondadori, Milano **2000**. (translated in English by Ashgate: see 2 above).
10. *Futuro aperto e libertà. Un'introduzione alla filosofia del tempo*, pref. di R. Bodei, (*Open Future and Freedom. An Introduction to the Philosophy of Time*, with a preface by R. Bodei), 1997, Laterza, Roma Bari.
11. *Modalità e temporalità. Un raffronto tra le logiche modali e le logiche temporali. (Modality and Temporality. A comparison between modal and temporal logic)*. Il Bagatto, Roma, 1994

Reviews of *Futuro aperto e libertà*:

- Michele di Francesco, "Libertà di movimento", Literary Supplement to *Il Sole-24 Ore*, 20 luglio 1997, p. 26.
- Giovanni Boniolo, "Futuro aperto e libertà", *Le Scienze*, Novembre 1997, p.117.
- Alberto Oliverio, "I ricordi tra regole biologiche ed elaborazioni soggettive", *Corriere della Sera*, 21 Dicembre 1997, p. 29.

Franca D'Agostini, "Ieri e domani via col tempo", *Tuttilibri*, supplemento a La Stampa, 26 febbraio 1998, p.6.

Reviews of *Il Software dell'Universo*

- M. Di Francesco, "Il software che fa girare la realtà", *il Sole 24 ore*, 14.01.01.
intervista a L. Gabaglio "Alla scoperta delle leggi di natura", *Sapere*, Dic. 2000, p.86-88.
L. Massacra, "Il software dell'universo", *Mediamente*, 31.01.01.
F. Cimatti, "Quel che ci dice il lessico dell'universo", *Il Manifesto*, 26.05.01
E. Castellani, *Le Scienze*, Ottobre 2001
V. Ascheri, (<http://www.swif.uniba.it/lei/recensioni/index.htm>), novembre 2001

Papers in peer-reviewed Journals

12. Filosofia della fisica, in *Rivista di Filosofia*, 2017, N.2 2017, pp.183-199.
13. Il ruolo della selezione di gruppo nelle spiegazioni naturalistiche della religione (The Role of Group Selection in Naturalistic Explanations of Religion), *Sistemi Intelligenti* / a. XXV, n. 2, agosto 2013, pp.367-372.
14. L'Instabilità della necessità metafisica: tra la Scilla della necessità logica e la Cariddi della necessità fisica (The Instability of metaphysical necessity: between the Scilla of logical necessity and physical necessity), *Sistemi Intelligenti*, Anno XXV, n.1 aprile 2013, pp. 95-100.
15. "Dalla freccia di Lucrezio all'ascensore di Einstein: alcune considerazioni sul ruolo degli esperimenti mentali nella scienza" (From Lucretius'arrow to Einstein's elevator: some remarks on the role of thought experiments in science), in *Esperimenti Mentali* (a cura di R. Casati A. Jacomuzzi, P. Kobau), *Rivista di Estetica*, n.s. 42, 3, anno 49, 2009, pp.21-37.
16. "Leggi naturali e libertà" (*Natural Laws and Freedom*), in *Nuova Civiltà delle Macchine*, XIX, 4, 2002, pp.76-88)
17. "Tempo e causalità mentale" (Time and Mental Causation), *Rivista di Filosofia*, 90, 3/1999, pp. 417-437.
18. "Determinismo, caso, libertà: in difesa del compatibilismo", (Determinism, Chance and Freedom: in defense of Compatibilism), *Paradigmi*, 51, 1999, pp.547-569.
19. "Che cos'è la filosofia della scienza?" (What is philosophy of science?), *Analysis*, 3, 2003, pp.15-22
20. "La causalità fisica e il principio di causa comune" (Physical Causation and the Principle of Common Cause), *Sistemi intelligenti*, 11, n. 2, 1999, pp. 207-229.
21. "La realtà del futuro e la relatività speciale", (The reality of the future and the special theory of relativity), *Rivista di Filosofia*, 85, 3, 1994, pp. 383-409.

(PAPERS IN COLLECTIONS)

1. Tempo, in *Le parole e i numeri della filosofia* (a cura di S. Achella e C. Cantillo), Carocci, Roma, 2020, pp. 213-218,
2. Filosofia, Meccanica quantistica e nonlocalità, in Pierluigi Barrotta – Eleonora Montuschi (a cura di) *La filosofia della scienza in Italia*, Armando, Roma, 2019
3. “L’oggettività della conoscenza scientifica. In Conti e Velotti (a cura di), *Strumenti del Pensiero*, Roma Bari : Laterza, 2019, volume 3B, pp.900-927
4. “La relatività e la realtà del momento presente”, In *Realtà senza realismo*, a cura di M. D’Ariano, Cristian Mariani, Salvatore Veca, Atti del Congresso dell’Istituto Lombardo delle Scienze e Lettere, Page Press, 2017, p. 35-52.
5. Il presente tra scienza e senso comune, in *La Guerra dei mondi? Scienza e senso comune*. a Cura di A. Lavazza e M. Marraffa. Torino: Codice, 2016, pp.150-161.
6. “Perché il linguaggio della natura è matematico? Da Galilei al dibattito contemporaneo”, in P. Pecere (ed.) *Il libro della natura. Scienze e filosofia da Einstein alle neuroscienze contemporanee*, Carocci Roma, vol II, 2015, X pp.35-43.
7. Preface at the Born-Einstein Correspondence (ed. by M. Dorato), Mimesis, 2015, pp. IX-XVI
8. Passato presente futuro, in *Asimmetrie*, Rivista semestrale dell’Istituto Nazionale di Fisica Nucleare, 17/10.14, pp. 13-14.
9. L’indispensabilità della scienza per la democrazia (I). Discussione libera e controlli incrociati di ipotesi (II), in *Riflessioni e iniziative di democrazie in tempo di crisi*, (ed. P. Chiatti), Morlacchi, Perugia, 2014, pp.3-40.
10. Scienza, Valori, Democrazia (Science, Values, Democracy), *Roma Tre News*, Anno XV, n.1 2013, pp.16-18.
11. “Scienza e coscienza, ovvero le contraddizioni della scienza del Novecento” (Science and consciousness, or the contradictions of 20th century science), In *Alla ricerca delle radici della nostra cultura*, n. 6, Grafica Briantea, Milano, 2012, pp.29-40.
12. “Idee fondamentali della fisica dell'Ottocento” (The fundamental ideas of 19th century physics), in *L'età moderna e contemporanea*, a cura di U.Eco, l'Ottocento, Filosofia, Scienze e Tecniche, EM Publishers, Milano, 2012, pp. 397-409.
13. Vittorio Somenzi, l'altruismo e i pesci sentinella: alcuni ricordi personali (Vittorio Somenzi, the altruism of fishes: some personal memories), in *Vittorio Somenzi. Antologia e Testimonianze*. Fondazione Banca Agricola Mantovana, 2011, 381-383.
14. Una brevissima storia del nulla, ovvero “troppo rumore per nulla” (A very brief history of nothingness, or too much ado about nothing) in V. Lingiardi, N. Vassallo (a cura di), *Terza cultura*, Il Saggiatore, Milano, pp. 109-110.

15. Come si fa ad acchiappare qualcosa che non esiste? Intervista a Chiara Lalli, (How can you grasp something that does not exist? An interview to C. Lalli) *Il Mucchio*, XXXV, n. 688, 2011, p. 49-51.
16. “Verità e scelta dei fatti”, (Truth and the choice of facts) in Vero e Verosimile, *Italiani Europei*, 8, 2011, pp.52-57.
17. “L’enigma del tempo e il controllo del futuro” (The enigma of time and the control of the future), in Prevedere, Anticipare, *Prisma*, 1, pp.55-60, ristampa di (84)-reprint of 92
18. [Tempo e divenire tra fisica e metafisica \(Time and Becoming between Physics and Metaphysics\), intervista di Laura Fellingine, in Human-Mente, vol. 8, Jan. 2009, pp. 207-214, http://www.humana-mente.it/Volume8_Models.of.Time.pdf](http://www.humana-mente.it/Volume8_Models.of.Time.pdf)
19. “Dialoghi sul confine” (Dialogues over the border), in *Sapere*, Ottobre 2010, pp. 12-19
20. “L’enigma del tempo e il controllo del futuro” (The enigma of time and the control of the future), in *Spazio ricerca*, N. 9, ottobre 2009, pp. 54-59.
21. “I due tavoli di Eddington, ovvero l’immagine scientifica del mondo e il mondo della vita” (Eddington’s two tables, or the scientific image of the world and the world of life), in A. Peruzzi (ed.), *Pianeta Galileo 2008*, Centro Stampa del Consiglio Regionale della Toscana, Firenze, pp. 81-
22. Ha senso parlare di “basi biologiche” della morale? (Is it meaningful to talk about the biological basis of morality?) in *B@belonline/print*, a cura di M. T. Pansera, n. 5, 2008, p. 209-215.
23. “Determinismo, libertà e la biblioteca di Babele” (Determinism, freedom and babel’s library), in *Prometeo*, Anno 27, 105, Marzo 2009, pp.78-85
24. “Brevi considerazioni sull’inevitabilità del conflitto fede-ragione” (Brief Remarks on the Inevitability of the Conflict between Faith and Reason), in *Scienze e Religioni*, a cura di Rafael Pascual e Raffaele Pisano, UNI Service – TRENTO, 2008, pp.123-129.
25. “Tempo della mente e tempo della materia. La natura del presente e la teoria della relatività” (Mental Time and Material Time. The nature of the present and the theory of relativity), in C. Esposito e P. Porro (eds.) *Quaestio 7/2007, La materia, Die Materie, Matter*, Brepols Publishers, Belgium, pp.489-503.
26. “L’ossessione dello scientismo” (“The Obsession of Scientism”), *Micromega*, Almanacco di Scienze, 3, 2008, pp. 79-90.
27. “Uno sguardo al tempo fisico” (“A glance to physical time”), in G. Borio e C. Gentili (eds.), *Armonia, Tempo. Storia dei concetti musicali, (Armony, Time)* Carocci, Roma, 2007, pp. 305-319.
28. Entry “La teoria della relatività” (Theory of relativity), in *Historia. La grande storia della civiltà europea*, a cura di U. Eco, L. Barletta, M. A. Bazzocchi, A. Ottani Cavina, G. Corbellini, P. Corsi, L. Marconi, E. Raimondi, L. Spaziant, Federico Motta, Milano, 2007, vol 5, *Il Novecento*, pp. 409-501.

29. Entry “Filosofia della Scienza” (Philosophy of Science), in *Historia. La grande storia della civiltà europea*, a cura di U. Eco, L. Barletta, M. A. Bazzocchi, A. Ottani Cavina, G. Corbellini, P. Corsi, L. Marconi, E. Raimondi, L. Spaziantè, Federico Motta, Milano, 2007, vol. 5, Il Novecento, pp. 423-426.
30. “Einstein e la Relatività” (Einstein and Relativity), in *Filosofia e cultura*, (a cura di A. La Vergata e F. Trabattoni), vol. 3b, La Nuova Italia, Firenze, pp. 110-120.
31. “Wertbeziehung e Wertfreiheit nella filosofia della scienza contemporanea”, (“Wertbeziehung e Wertfreiheit in contemporary philosophy of science, in *Bene navigavi. Studi in onore di Franco Bianco*, a cura di M. Failla, Quodlibet Studi, 2006, pp.39-48.
32. “Il dibattito tra compatibilisti e libertari tra metafisica e pragmatica: perché si deve abbandonare la prima per abbracciare la seconda.” (The debate between compatibilists and libertarians between metaphysics and pragmatics: why should we abandon the former to endorse the latter), in *Le ragioni del conoscere e dell’agire*, a cura di R. Calcaterra, Quodlibet, Macerata, 2006, pp.267-276.
33. “Filosofia della scienza” (Philosophy of science), in F. D’Agostini, N. Vassallo (eds.), *Storia della Filosofia Analitica (History of Analytic Philosophy)*, Einaudi, Torino, pp. 223-249, 2002.
34. “Filosofia della fisica” (Philosophy of Physics), in N. Vassallo (ed.), *Filosofia delle scienze*, (Philosophy of the Sciences), Einaudi, Torino, 2003, pp. 99-139.
35. “Popper e la fisica” (Popper and Physics), in *Reset*, 72, July-August 2002, p.88-90.
36. “Il positivismo e l’uniformità della natura: le leggi in J. S. Mill”, (Positivism and the Uniformity of Nature: Natural Laws in J.S. Mill), cap. 7, in G. Boniolo e M. Dorato (eds.), *La legge di natura. Analisi storico-critica di un concetto*, McGraw Hill Italia, Milano, 2001, cap. 7, pp. 181-208.
37. With G. Boniolo, “Introduzione”, in G. Boniolo e M. Dorato (eds.), *La legge di natura. Analisi storico-critica di un concetto*, McGraw Hill Italia, Milano, 2001, pp. XIII-XVIII.
38. “Sapere scientifico-tecnologico e sapere filosofico”, in C. dal Canto e M. Paoli (eds.), *Filosofia ed etica di fronte allo sviluppo scientifico tecnologico*, ITIS, Pontedera (PI), 2001, pp.79-92.
39. With P. Quintili e C. Stancati, “Filosofie della natura” (Philosophies of Nature), *Bollettino Filosofico*, Dipartimento Filosofia dell’Università della Calabria, 2001, pp.454-469.
40. “Novecento Fisico” (20th-Century Physics), in *Novecento, Novecenti*, a cura di E. Agazzi, La Scuola, Brescia, 1999, pp.249-273.
41. “Il tempo analizzato: origine e significato della metafora del flusso del tempo”, (Origin and Meaning of the Metaphor of the Passage of Time), in *Nuova Civiltà delle macchine*, 17, n.1 (65), 1999 pp. 28-37.
42. “La natura del tempo” (The nature of time), *Montag*, 1998, 4, pp.99-113.
43. “Chi ha bisogno di una fisica computabile della mente?” (Who needs a non-computable physics of the mind?), V. M. Abrusci, C. Cellucci, Roberto Cordeschi, V. Fano (eds.), Proceedings of the

Third Meeting of the Italian Society for Logic and Philosophy of Sciences, 1998 V. M. Abrusci, C. Cellucci, Roberto Cordeschi, V. Fano, Pisa, ETS, 1998, pp. 245-254.

44. “Tre fili di Arianna per il labirinto del tempo”, (Three Ariadne’s threads for the labyrinth of time), in *Storia e Filosofia della Scienza. Un possibile scenario italiano. (History and Philosophy of Science. An Italian possible scenario)*, E. Bellone, G. Boniolo (eds.), Milano, Fotolito Sebi, 1998, pp.69-78.

45. with Giovanni Boniolo: “Dalla relatività galileiana alla relatività generale” (From galileian relativity to general relativity), in G. Boniolo (ed.), *Filosofia della fisica*, Bruno Mondadori, Milano, Italy, 1997, pp.5-167. (“Philosophy of physics” (other authors of the book include S. Bergia, G. Boniolo, M.L. Dalla Chiara, G.C. Ghirardi, R. Giuntini, and M. Pauri). The sections that I have written are “Tempo e simultaneità”, “Il paradosso dei gemelli”, “Fisica e geometria”, (Time and simultaneity, The Twin Paradox, Physics and Geometry).

46. “Tempo e nonseparabilità nella fisica relativistica”, (Time and nonseparability in relativistic physics), paper presented at the Congress on the Foundations and Philosophy of Physics, held on 27-29 September 1994 in Cesena and Urbino, in V. Fano (ed.), *Fondamenti e Filosofia della Fisica*, (Foundations and Philosophy of Physics), Accademia Nazionale di Scienze Lettere e Arti, Società Editrice “Il Ponte Vecchio”, Cesena, 1996, pp.147-161.

47. “La teoria della relatività e l’identità del mentale e del fisico” (The special theory of relativity and the identity of the physical and the mental), paper presented at the first congress of the Italian Society for Analytic Philosophy (SIFA), held in Genova on 12-15 October 1994, in C. Penco e G. Sarbia (eds.), *Alle radici della filosofia analitica*, Atti del primo convegno di Filosofia Analitica, Genua, Erga Edizioni.

48. “Il problema del realismo tra meccanica quantistica e relatività speciale” (The problem of realism between quantum mechanics and special relativity), *Epistemologia*, **19**, 1996, pp.133-176.

49. “Aspetti epistemologici del concetto di tempo”, (Epistemological aspects of the concept of time), *Nuova Civiltà delle Macchine*, Anno **13**, n. 1-2, 1995, pp. 99-111.

50. “Sapere come e sapere perché”, (Knowing how and knowing why), *Technological Review*, italian edition of the MIT journal, **74**, Dec. 1994, pp. 36-39.

51. “Il dibattito Mill-Whewell e la prima legge di Keplero”, (The Mill-Whewell debate and the first law of Kepler), *Nuova Civiltà delle Macchine*, **25**, 1989, pp. 68-76.

52. “Come nascono le teorie scientifiche”, (The origin of scientific theories), interview with Mary Hesse, in *Prometeo*, **11**, Sept. 1985, pp. 94-100.

53. “Scienza ed arte”, (Science and Art), *Prometeo*, **12**, Dec. 1985, pp. 155-157.

54. “Creatività e scoperta scientifica” (Creativity and scientific discovery), *Sapere*, Dec. 1983, pp. 48-50

55. “Filosofia della scienza - Fondamenti delle scienze”, in “Linee di ricerca”, e-book in progress edited by L. Floridi, <http://www.swif.it/biblioteca/lr/intro.php>.

Reviews of philosophy books in Italian newspapers

56. “Nella Fisica sta tutta la realtà”, Recensione (review of) di M. Lange, *Introduction to the Philosophy of Physics*, Blackwell, 2002, Il SOLE 24 ore, Domenica 23.XI.2003
57. “Einstein opportunista?” Il Sole 24 ore, Domenica 28 Marzo 2010, (review of) di F. Laudisa. *Einstein. Un atlante filosofico*. Bompiani, 2010.
58. “Pensare la salute e la malattia”, Il Sole 24 ore, Domenica 14 Novembre, 2010, review of di *Filosofia della medicina*, a cura di A. Pagnini, Carocci, 2010.
59. L’impossibile indipendenza della scienza dalla filosofia, Recensione di F. Laudisa, Il naturalismo, Laterza, *Il manifesto*, 23/11/2014
60. “Nella simmetria una dea dell’estetica”, recensione di **Una bellissima domanda** *Scoprire il disegno profondo della natura* (Einaudi) Il manifesto, 3 Luglio 2016 <https://ilmanifesto.it/nella-simmetria-una-dea-dellestetica/>
61. Perché la materia ci rende liberi. Il Sole 24 ore, Recensione di J. Ismael, *How physics makes us Free*, 2016
62. La filosofia al tempo dei quanti, Recensione del *La fisica al tempo dei quanti*, 2 febbraio, 2020

VARIOUS NEWSPAPER ARTICLES

63. “Perché l’università merita un’altra riforma”, (Why the University deserves another reform), *Darwin*, September 2005, pp.64-65.

CONFERENZE ONLINE

<https://youtu.be/yII24Z891Ck?si=BQSKDe23mNbBDr7D>