

## Carlo Rovelli

Centre de Physique Theorique  
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F-13288 Marseille, France

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<http://www.cpt.univ-mrs.fr/~rovelli>

### Present positions

- *Professeur de classe exceptionnelle*, Department of Physics, Aix-Marseille University.
- *Adjunct Professor*, Department of Philosophy, University of Western Ontario.
- *Distinguished Visiting Research Chair*, Perimeter Institute.

### Honorary positions

- *Universidad de San Martin, Buenos Aires, Argentina*, Laurea Honoris Causa.
- *Beijing Normal University, Beijing, China*, Honorary Professor.
- *Institut Universitaire de France*, Senior Member.
- *Académie Internationale de Philosophie des Sciences*, Membre Titulaire.
- *Accademia di Agricoltura Scienze e Lettere di Verona*, Honorary Member.
- *Accademia Galileana*, Member.
- *Department of History and Philosophy of Science, Pittsburgh University*, Affiliated Professor.
- *Città di Condofuri*, Honorary citizen.
- *Fondazione, Orchestra Federico II di Svevia*, membro del Comitato d’Onore.

### Education

1970-1975	Liceo Maffei, Verona	Classical studies
1975-1981	Università di Bologna	Laurea in Fisica (with honors)
1983-1986	Università di Padova	Dottorato di Ricerca (Ph.D.) in Physics

### Professional Employment

2006-pres	Université de la Méditerranée	Professeur de classe exceptionnelle
2000-2006	Université de la Méditerranée	Professeur (1ere classe)
1999-2000	Pittsburgh University	Full Professor
1998-1999	CPT Luminy	Directeur de Recherche
1994-1999	Pittsburgh University	Associate Professor
1990-1994	Pittsburgh University	Assistant Professor
1989	Sissa, Trieste	Post-Doctoral position
1989	Syracuse University	Visiting Fellow
1987	Yale University	Post-doctoral Fellowship
1987-1988	Università di Roma	INFN Post-doctoral position
1986	Imperial College London	Visiting position

### Recognitions, Awards, Honors

- *2021 Watkin’s Prize*.
- Included in the 2019 list of the *100 most influential “Global Thinkers”* by Foreign Policy magazine.
- *Prix du Duc de Villars 2019* for the book “The Order of Time”.
- *First Prize* of the 2016 FQXi “Wandering Towards a Goal” Essay Contest for the article “Meaning and Intentionality = Information + Evolution”.
- *2015 Prize “Premio Alassio centolibri per l’informazione scientifica”*,
- *2015 Prize “Premio Larderello”*,
- *2014 Prize “Premio Merk-Serono”*,

- 2014 Prize “*Pagine di scienza di Rosignano*”, for the book “*La realtà non è come ci appare*”,
- 2014 Prize for scientific writing “*Premio Galileo*”, for the book “*La realtà non è come ci appare*”,
- Second Prize of the 2013 FQXi Essay Contest, for the article ““Relative information at the foundation of physics””.
- *Prix du jury du jury du festival d’Astronomie de la Haute Maurienne*, for the book “Anaximandre de Millet” 2011.
- *Fellow of the International Society of General Relativity and Gravitation*, 2010.
- *First Prize* of the 2009 FQXi “The nature of Time” Community Essay Contest, for the article “Forget Time”.
- *2005 and 2009 Selection* by IOP Select for the articles [127] and [151] below.
- *Prix du Rayonnement International*, Festival des Sciences et des Technologies, 2004.
- *Chiamata per chiara fama* (Honor nomination) voted by Rome University Physics Dept, 2002.
- *Gravity Research Foundation, Second Award 1996*, and Honorable mention 1995 and 2002.
- *Idoneo* al concorso Professore Universitario di Prima Fascia, Università di Lecce, Maggio 2000.
- *Aspen Insitute Italia*, membro della sezione “Protagonisti italiani nel mondo”.
- *Xanthopoulos Award*, Triennial International Prize in Relativity, (“for the best relative worldwide under forty”) 1995.
- *1994 Annual Series Lecturer*, Pittsburgh Center for Philosophy of Science.
- *Chancellor Distinguished Research Award*, University of Pittsburgh 1993.

### Others

- Chief Editor, *Foundations of Physics*, 2016 –
- Section Editor, *Annales Henri Poincaré* (Section: quantum gravity), 2008 –
- Editorial Advisory Board for the Einstein Studies book series, 2017 –
- Editorial Board, *Journal of Cognitive Historiography*, 2018 –
- Editorial Board, *Journal of Theoretical and Computational Physics (JTCP)*, 2011 –
- Editorial Board, *SIGMA* (Symmetry, Integrability and Geometry: Methods and Applications), 2008, –
- Editorial Board, *Classical and Quantum Gravity*, 2005 – 2014
- Advisory Panel, *Classical and Quantum Gravity*, 2014 –
- Advisory Board, *Universe*, 2014 –
- Editorial Board, *Foundation of Physics*, 2006 –
- Editorial Board, *Journal of Geometric Methods in Modern Physics*, 2013 –
- Editorial Board, *Nuovo Cimento B*, 2005 –
- Editorial Board, *The Gravitational Lens*, 2006 –
- Editorial Board, *Journal of Mathematical Physics*, 1995 - 2000
- Associate Editor, *General Relativity and Gravitation*, 1996 - 2006
- FQXi scientific advisory panel, 2021 –
- Membro della Consulta Scientifica del ”Cortile dei Gentili”, della Chiesa Cattolica.
- Honorary Fellow, John Bell Institute for the Foundations of Physics.
- Advisory board of the Institute of the Arts and Ideas of London.
- Editorial Advisory Board for the Einstein Studies Series, 2016 –
- Program committee of the 6th Meeting of the Société de Philosophie des Sciences (SPS), University of Lausanne July 2016.
- Scientific committee of the journal “Lato Sensus, Revue de la Société de philosophie des sciences”
- ESA (European Space Agency). Member of the Scientific Advisory Committee (GNSS-GSAC)

2010-2012.

Institut Méditerranéen de Recherches Avancées d'Aix-Marseille, membre du conseil de gestion, en tant que personnalité qualifiée, 20013 –.

Steering Committee of the "Quantum Gravity and Quantum Geometry" European Science Foundation network. 2009 –

Advisory Panel, Nature, 2008 –

Main Organizer, International Conference "La Forma dello Spazio - Italian research on Quantum Gravity", Trento, Italy, June 1993

Main Organizer, International Conference "Non perturbative quantum gravity", Marseille, France, May 2004

Président "Comité d'évaluation" of the UMR 8627, Laboratoire de Physique Théorique, Orsay, France, december 2009

"Comité d'évaluation" of the UMR 7164, Laboratoire d'AstroParticules et Cosmologie, Paris, France, february 2008

"NSERC Evaluation committee" of Perimeter Institute, Toronto, Canada. 4-August 29, 2006

"Comité National" du CNRS (Centre National de la Recherche Scientifique), France, Section 02. 2004 – 2008

Nominating Committee of the International Society on General Relativity and Gravitation 2007-2013

Bergmann-Wheeler Thesis Prize committee

Scientific Committee for the conference "Quantum Gravity", Beijing, July, 2009

Program committee for conference "Inconsistency Robustness 2011", Stanford 2011

Program Committee of the "Sydney-Tilburg conference on Reduction and the Special Sciences", Tilburg Center for Logic and Philosophy of Science at Tilburg University, The Netherlands, April 2008

Scientific Committee of the International Conference on Gravitation and Cosmology, ICGC-2007, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, India

Scientific Committee for the conference "Quantum Gravity and Quantum Geometry", Nottingham June 30th-July 4th, 2008

Scientific Advisory Committee of the Loops '07 conference, Morelia, Mexico, June 2007.

International Scientific committee, workshop "Beyond the Standard Model", Università di Bologna, summer 2006.

International Standing Committee and International Advisory Committee of the Albert Einstein Centennial Meeting UNESCO, 2005

Scientific advisory committee, Center for gravity and relativity, University of South of China.

International Committee of the International conference "Loops and Spinfoams 2005", Oct 10-15th, 2005, Albert Einstein Institute, Potsdam, Germany.

Scientific Committee, "Journé sur la Causalité" ("Einstein 2005", Bordeaux)

Scientific Committee, SIGRAV (Italian General Relativity Society), 2003-

Scientific Committee, International Conference Mathematical Physics "Chelyabinsk Region", Russia, Summer 2001.

Scientific Committee, International Conference "Constrained Dynamical Systems and Quantum Gravity I", Dubna, Russia, July 1995

Scientific Committee, International Conference "Constrained Dynamical Systems and Quantum Gravity II", Santa Margherita Ligure, Italy, September 1996

Scientific Committee, International Conference "Coherent States, Quantum Mechanics and Quantum Gravity", Warsaw, Poland, August 1998

Comitato Scientifico, SIGRAV graduate school in contemporary relativity and gravitational physics, Villa Olmo, Como (Italy) 1998-present.

International Advisory Committee, “Gravity, Astrophysics and Strings at the Black Sea” Conference 2001.

Advisory Committee, Second Conference “Gravity, Astrophysics, and Strings at the Black Sea”, Kiten, June 10th - 16th, 2004.

Advisory Committee, International Workshop “Selected topics of theoretical and Modern Mathematical Physics”, Tbilisi, Georgia, July 1996

Advisory Committee, Constrained Dynamics and Quantum Gravity 99, Villasimius, Sardinia, Italy, September 14-18 1999.

Advisory Board, International Workshop Dice 2002, September 2002 at the cultural center Accademia dei Ravvivati in the town of Piombino (Italy).

Program Committee, 1996 International Fellows Conference Center for Philosophy of Science, Castiglione May 1996

Organizing Committee, International Seminar on Mathematical Cosmology March 30 - April 4, 1998, Potsdam, Germany

Editor, Special issue of the Journal of Mathematical Physics on “Quantum Geometry and Diffeomorphism Invariant Quantum Field Theory”, in collaboration with L Smolin, 1995

Lecturer “Como school in theoretical physics”, Como, Italy 2014

Lecturer “PSI”, Perimeter Institute, Toronto, Canada 2013

Lecturer, “PASI school on quantum gravity”, Morelia, Mexico, July 2010

Lecturer, “Naxos school on quantum gravity”, Naxos, Greece, September 2011

Lecturer, “Corfu school on quantum geometry”, Corfu, Greece, September 2009

Lecturer, “First quantum gravity school”, Zakopane, Poland, April 2007

Lecturer, “Italian School of Mathematical Physics”, Ravello, September 1996

Lecturer, “Karpacz XXXV Winter School of Theoretical Physics “From Cosmology to Quantum Gravity” Polanica, Poland, February 1999

Associate Fellow, Newton Institute, Cambridge UK, 1994

Conseiller de Laboratoire, Centre de Physique Théorique de Luminy, 2004 –

Comité des spécialistes, Commission 29, Université de Aix Marseille I

Comité des spécialistes, Commission 29, Université de Aix Marseille II

Resident Fellow of the Center for the Philosophy of Science, Pittsburgh, PA

Résponsable de l'équipe de gravité quantique du Centre de Physique Théorique de Luminy.

Membre du comité scientifique du Département de Physique de l'Université de la Méditerranée.

### **Referee for**

*Journals:* Nature, Physical Review Letters, Physical Review D, Physical Review A, Nuclear Physics, Physics Letters, Proceedings of the Royal Society, Journal of Mathematical Physics, Classical and Quantum Gravity, Journal of General Relativity, General Relativity and Gravitation, Gravity and Geometry, Foundations of Physics, Nuovo Cimento, Modern Physics Letters, International Journal of Modern Physics, International Journal of Theoretical Physics, Europhysics Letters, Complexity, Europhysics Letters.

*Publishers:* Oxford University Press, Chicago University Press, Birkhauser, Cambridge University Press, Elsevier Publishing Company.

*Founding Agencies:* National Science Foundation (USA), European Science Foundation (EU), European Marie Curie Networks (EU), Engineering and Physical Sciences Research Council (UK), Agence d'évaluation de la recherche et de l'enseignement supérieur (France), Science Coun-

cil (Canada), Natural Sciences and Engineering Research Council (Canada), Shared Hierarchical Academic Research Computing Network (Canada), Fonds zur Förderung der Wissenschaftlichen Forschung (Austria).

### Grants

“QISS - Quantum Gravity and Quantum Information”.  
 Templeton grant \$ 2,000,000 (2019-2022)

“Agency in the physical world”,  
 FQXi Grant \$ 180,000 (2019 - 2021)

“Quantum events as the basis of quantum mechanics and quantum gravity”,  
 FQXi Grant \$ 90,000 (2015 - 2017)

“Planck Stars: a window on quantum gravity?”,  
 AMideX Grant €30,000 (2014 - 2015)

“Is space is really discrete? Is time is really non existent?”,  
 Templeton Foundation grant: €190,250 (2012 - 2015)

“Gravité Quantique et Philosophie”,  
 PEPS CNRS : €2,500 (2012)

“Gravitation quantique à boucles : groupe de renormalisation et expériences”,  
 ANR grant SAR 09-BLAN-0041-01 LQG-09: €280,000 (2009 - 2013)

“Collaboration Marseille-Berkeley”,  
 France-Berkeley Fund: \$10,000 (2009)

“Gravitation Quantique à boucles”,  
 ANR grant BLAN06-3139436: €180,000 (2006 - 2009)

“Relativité Générale”,  
 Institut Universitaire de France: €76,225 (2010 - 2015)

“Relativité Générale”,  
 Institut Universitaire de France: €76,225 (2004 - 2009)

“Non perturbative Quantum Gravity”,  
 NSF Grant PHY-9900791: \$95,631 (1999 - 2002)

“Non perturbative Quantum Gravity”,  
 NSF Grant PHY-95-15506: \$82,000 (1996 -1999)

“Non perturbative Quantum Gravity”,  
 NSF Grant PHY-93-11465: \$47,000 (1993 -1995)

“Non perturbative Quantum Gravity”,  
 NSF Grant PHY-90-12099: \$63,000 (1990-1993)

Physics Department of the University of Pittsburgh,  
 Grant PITT 2-11225: \$6,670 (1990-1994)

“US-Italy cooperative research: Non perturbative quantum gravity”,  
 NSF Grant: \$19,000 (1990-1993)

“US-Argentina cooperative research: General Relativity”  
 NSF Grant: \$11,000 (1992-1993)

INFN Fellowship: Lit. 12,000,000 (1987-1988)

“La forma dello spazio”  
 INFN Grant: Lit. 5,000,000 (1993)

“La forma dello spazio”  
 University of Trento Grant: Lit. 4,000,000 (1993)

Research Scholarship “Fondazione della Riccia”: Lit. 5,000,000 (1987)

**Others**

Italian citizen

Spoken languages: Italian, French, English, fluent

Born in Verona, Italy, on May 3rd, 1956

**Citations** (*Goggle Scholar* database).

Total number of citations: > **33.000**.

**“h” factor = 86.**

## TRAINING AND TEACHING

### Ph.D. students or postdocs trained under my supervision who have now faculty positions in universities or research institutions

1. Francesca Vidotto (PhD), Professor at Western Ontario University, Canada (2019).
2. Hal Haggard (postdoc), Professor at Bard College, USA (2015).
3. Matteo Smerlak (PhD), Sofja Kovalevskaja Research Group Leader, Germany (2015).
4. Muxin Han, (postdoc) Florida Atlantic University, USA (2015).
5. Edward Wilson-Ewing (postdoc), Assistant Professor, University of New Brunswick, Canada (2017).
6. Eugenio Bianchi (PhD, postdoc), Associate Professor at Penn State University, USA (2014).
7. Valentin Bonzom (PhD), Maitre de Conférence, at the Université Paris XIII, France (2013).
8. You Ding (PhD), Professor at the Beijing Jiaotong University, China (2012).
9. Jonathan Engle (postdoc), Professor at Florida State University, USA (2012).
10. Simone Speziale (PhD, postdoc), Chargé de Recherche CNRS, France (2008).
11. Robert Oeckl (postdoc), Professor at the Universidad Nacional Autonoma de Mexico, Mexico.
12. Alejandro Perez (PhD), Professeur de première classe, at the Aix-Marseille Université, France.
13. Etera Livine (PhD), Chargé de Recherche at the Ecole National Supérieure de Lyon, France.
14. Merced Montesinos (PhD), Professor at the CINVESTAV-IPN, Mexico.
15. Marcelo Bareira (PhD), Assistant Professor at the Pontificia Universidade Católica and Research Professor at Centro Universitario do Sul, Minas, Brasil.
16. Hugo Morales-Tecotl (PhD), Full Professor at the Universidad Autonoma Metropolitana Iz-tapalabay, Mexico.

### Ph.D. Thesis supervised

1. Josè Balduz (Carnegie Mellon University, Pittsburgh)  
Completed November 1994  
“Dynamical Model of Quantum Measurement”
2. Hugo Morales-Tecotl (SISSA, Trieste)  
Completed August 1993  
“Fermions in the Loop Representation”
3. Junichi Iwasaki (University of Pittsburgh)  
Completed January 1994  
“The Linearization of Quantum gravity”

4. Norbert Grott (University of Pittsburgh)  
Completed April 1998  
“Moduli spaces in intersecting Knot Theory”
5. Marcelo Bareira (University of Pittsburgh).  
“Black hole emission spectra”
6. Bill Curry (University of Pittsburgh)  
“The relational interpretation of quantum mechanics”
7. Peush Upadhya (University of Pittsburgh)  
“Loop quantum gravity”
8. Alejandro Perez (University of Cordoba)  
Completed May 2001  
“Finiteness of Spin Foam models”
9. Marcus Gaull (Munich University)  
Completed 2001  
“Hamiltonian constraint in LQG”
10. Etera Livine (Université de la Méditerranée).  
Completed 2002  
“Modèles de mousse de spin” (Prix de Thèse 2003 de l’Université de la Méditerranée)
11. Daniele Colosi (Université de la Méditerranée et Università di Roma)  
Completed Mars 2005  
“Dynamique quantique covariante”
12. Luisa Doplicher (Università di Roma)  
Completed February 2005  
“Teoria dei campi quantistica covariante”
13. Florian Conrady (Berlin University)  
Completed September 2005  
“The classical limit of spin foam models”
14. Simone Speziale (Università di Roma)  
Completed January 2006  
“2d Quantum Gravity”
15. Winston Fairbairn (Université de la Méditerranée)  
Completed November 27, 2006  
“Separability in LQG”(Prix de Thèse 2007 de l’Université de la Méditerranée)
16. Mauricio Mondragon Lopez (Université de la Méditerranée)  
Completed March 2008  
“Probability in relativistic quantum mechanics”
17. Emanuele Alesci (05/03/1980 Università di Roma III)  
1/11/2005-11/1/2008  
“The complete Loop Quantum Gravity graviton propagator”
18. Elena Magliaro (23/5/1981 Università di Roma Tre)  
1/11/2005- 12/1/2009  
“Low-energy limit of Loop Quantum Gravity”



19. Claudio Perini (19-07-1979 Università di Roma Tre)  
1/11/2006- 30/4/2010  
“Semiclassical analysis of Loop Quantum Gravity”
20. Eugenio Bianchi (Scuola Normale di Pisa)  
“Loop quantum gravity”
21. Roberto Pereira (15/1/1982 Université de la Méditerranée)  
1/9/2006-8/3/2010  
“The loop quantum gravity vertex”
22. Valentin Bonzom (Université de la Méditerranée)  
  
“Spinfoams from simplicial geometry ( Géométrie des simplexes et modèles de mousses de spin ).”
23. Matteo Smerlak (7/12/1984 Université de la Méditerranée)  
1/9/2008 - 7/12/2011  
“Divergence des mousses de spin: Comptage de puissance et resommation dans le modèle plat”
24. You Ding (Université de la Méditerranée)  
“LQG vertex and hamiltonian”
25. Francesca Vidotto (22/11/1980 Università di Pavia)  
01/11/2009-16/02/2012  
“Loop Quantum Gravity and Cosmology”
26. Wolfgang Wieland (30 /1/1984, Aix-Marseille Université)  
1/10/2010-12/12/2013  
“The Chiral Structure of Loop Quantum Gravity (Structure chirale de la gravité quantique à boucles)”  
Prix de Thèse 2013 de l’Université de la Méditerranée
27. Mingyi Zhang (2/6/1987, Aix-Marseille Université)  
15/9/2010.- 21/7/2014,  
“Loop quantum gravity and discrete geometry, Gravite quantique a boucles et geometrie discrete”
28. Aldo Riello (20/09/1987, Aix-Marseille Université)  
1/9/2011 - 22/7/2014  
“Corrections radiatives en gravité quantique à mousse de spins : Une étude du graphe de Self énergie dans le modèle EPRL Lorentzien”
29. Seramika Ariwahjoedi (Indonesia)  
1/10/2012 - 1/10/2016
30. Marios Christodoulou (Aix-Marseille Université)  
1/10/2012 - 30/11/2017
31. Francois Collet (Aix-Marseille Université)  
1/10/2013 - 30/11/2016
32. Thibaut Josset (Aix-Marseille Université)  
1/10/2014 -30/11/2017  
“General covariant statistical mechanics”

33. Fabio D'Ambrosio  
1/1/2016–2019,  
“Planck Stars”
34. David Martinez  
1/10/2017
35. Francesco Gozzini  
1/10/2017  
“Planck Stars”

### Other thesis supervised

1. Alexandru, Mustatea, Master (Université de la Méditerranée),  
“Quantum geometry”
2. Bernard Raffaelli (Université de la Méditerranée, Marseille), DEA.  
“Quantum Gravity”
3. David Louapre (ENS, Lyon) DEA.  
“Gravité Quantique en 3d”
4. Simone Speziale (Università di Roma) Laurea  
“Reconcile Planck-scale discreteness and the Lorentz-Fitzgerald contraction”
5. Frank Hellmann (Munich University) Diploma Thesis  
“Eigenvalues in relativistic quantum mechanics”
6. Francesca Vidotto (Università di Padova) Laurea  
“Loop quantum cosmology. Curved models and inhomogeneities.”

### Jury

1. Habilitation à diriger des recherches : Alejandro Perez, Marseille 21/2/2006.
2. Habilitation à diriger des recherches (Cosmologie) :
3. Habilitation à diriger des recherches (Philosophie) : Charles Alunni, ENS Paris, 2002.
4. Doctorat (Philosophie) : Alexiei Grinbaum, Polytechnique Paris, 2002.
5. Doctorat : David Louapre, ENS Lyon, 2003.

### Courses taught

1. General Relativity 1 (USA, Graduate)
2. General Relativity 2 (USA, Graduate)
3. Classical and Quantum Canonical General Relativity (USA, Graduate)
4. Cosmology (USA, Graduate)
5. Astronomy (USA, Undergraduate)
6. Introductory Quantum Mechanics (USA, Undergraduate)
7. Introductory Physics for Scientists and Engineers 1 (USA, Undergraduate)
8. Introductory Physics for Scientists and Engineers 2 (USA, Undergraduate)
9. Introductory Physics for Scientists and Engineers 3 (USA, Undergraduate)
10. Introductory Physics for non science majors 1 (USA, Undergraduate)
11. Introductory Physics for non science majors 2 (USA, Undergraduate)
12. Physics of Music (USA, Undergraduate)
13. Meccanica Razionale (Italy)
14. Introduction à la Mécanique Quantique (France, DEUG)
15. Relativité generale (France, Maitrise)
16. Mécanique Quantique (France, License)
17. Optique Géométrique (France, Deug)
18. La Naissance de la Science (France, License)

**Introduction and development of new courses**

1. La Naissance de la Science (France, License)  
*New undergraduate cours proposed and developed at the Université de la Méditerranée. Started winter 2005. 130 students.*

## BOOKS

1. C Rovelli: *Sette Brevi Lezioni di Fisica*, Adelphi 2014.  
(English: *Seven brief lesson on physics*, Penguin 2015.)  
Translated in 43 languages.  
1.3 million copies sold worldwide.
2. C Rovelli: *L'ordine del tempo*, Adelphi 2017.  
(English: *The Order of Time*, Penguin 2018.)
3. C Rovelli: *La realtà non è come ci appare*, Cortina Editore, 2014.  
(English: *reality is not what it seems*, Penguin 2016.)  
Translated in 9 languages.
4. C Rovelli: *Anaximandre de Milet ou la naissance de la science*, Dunot, Paris, 2009.  
(English: *The First Scientist: Anaximander and his legacy*, Whestholme Chicago 2011.)  
Translated in 7 languages.
5. F Vidotto, C Rovelli: *Covariant Loop Quantum Gravity*, Cambridge University Press, 2014.
6. C Rovelli: *Quantum Gravity*, Cambridge University Press, 2004.  
Available online at <http://www.cpt.univ-mrs.fr/~rovelli/book.pdf>
7. C Rovelli (editor): *General relativity: The most beautiful of theories : Applications and trends after 100 years*. De Gruyter 2014.
8. C Rovelli: *Cos'è il tempo? Cos'è lo spazio?*, DiRenzo editore, Roma 2004.

## POPULARIZATION

### CD

1. "Interview avec Claude Cohen-Tannoudji"  
De Vive Voix, Paris 2005.
2. "Temps et espace: d'Anaximandre à la gravité quantique"  
De Vive Voix, Paris 2007.

### Encyclopaedias

1. *Enciclopedia Treccani, XXI SECOLO, L'Universo Fisico*, article "Gravità quantistica". pagina 163. (Treccani 2010)
2. *Encyclopaedia Britannica*, 1991 Yearbook of Science and Technology, article "Knots and Physics".
3. *The Stanford Encyclopedia of Philosophy*, Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/win2003/entries/rovelli/> entry "Relational quantum mechanics".
4. *Handbook of the Philosophy of Science*. Volume 2: Philosophy of Physics Volume editors: John Earman and Jeremy Butterfield. Handbook editors: Dov M. Gabbay, Paul Thagard and John Woods, entry "Quantum Gravity" (Elsevier, 2006)

5. *Encyclopedia of Mathematical Physics*, eds. J.-P. Francoise, G.L. Naber and Tsou S.T. Oxford: Elsevier, 2006 (ISBN 978-0-1251-2666-3), entry “Loop Quantum Gravity”, volume 3 page 339.
6. *Encyclopedia of Mathematical Physics*, eds. J.-P. Francoise, G.L. Naber and Tsou S.T. Oxford: Elsevier, 2006 (ISBN 978-0-1251-2666-3), entry “Canonical general relativity”, volume 1 page p. 412.
7. *La Scienza*, Edizioni La Repubblica, Roma 2005, entry “Spazio e Tempo”.

Some popularization articles on my work, or by myself (not up to date)

1. “S’affranchir du temps”, C Rovelli, Pour la Science, October 2010.
2. *Il Sole 24 Ore, supplemento cultura domenicale*, “Dante e Einstein nella tre-sfera”, C Rovelli, October 2010.
3. *La Recherche*, “Oubliez le temps”, C Rovelli, dossier, June 2010.
4. *La Recherche*, “Mécanique quantique, un question de perspective”, M Smerkal and C Rovelli, April 2008.
5. *The Daily Telegraph*, “On the third stroke, time will be a-changin’i”, Roger Highfield, February 2008.
6. *Discover*, “Does Time Exist?”, T Folger, June 2007.
7. *Physics Today*, “Quantum Gravity Faces Reality”, L Smolin, November 2006.
8. *Science et Avenir, Hors-Série*, “Le pile et face quantique”, M Bitbol, October/November 2006.
9. *Ciel et espace, Hors-Série*, “Chercher c’est reconnaitre que nous ne savons presque rien”, October 2006.
10. *Il Sole 24 ore*, “Stringhe che non tengono”, C Rovelli, October, 2006.
11. *The Economist*, “Looping the loop”, September 30th, 2006.
12. *New Scientist*, “Supersizing quantum gravity” Cover page and article, D Castelvechi, August 2006.
13. *Spektrum Wissenschaft*, “Fluch und Segen spekulativer Theorien” (“Curse and benediction of speculative theories”), C Rovelli, 2006N3 108, 2006.
14. *Science et Vie*, “Le monde existe-t-il vraiment?”, cover page and feature article, Octobre 2005.
15. *Science et Vie*, “Qu’y avait-il avant le Big Bang?”, cover page and feature article, Juillet 2005.
16. *Science et Vie*, “Depasser Einstein”, cover page and feature article, April 2005.
17. *Le Scienze*, “Universo, parte seconda”, Cristina Valsecchi, June 2005.
18. *Science et Vie*, “Depasser Einstein”, cover page and feature article, April 2005.
19. *Scientific American*, “Grains of Space”, Lee Smolin, January 2004.
20. *Physics World*, “Loop Quantum Gravity”, C Rovelli, November 2003.
21. *Science Magazine*, “Constructing Spacetime—No Strings Attached”, Adrian Cho, 8-11-2002.
22. *Science Magazine*, “The beginning of time”, Greg Hogan, 3-22-2002.
23. *International Herald Tribune*, “Turn Down That Web, These Scientists Plead, So We Can Think”, James Glanz, 6-20-2001.
24. *The New York Times*, “How is the Universe built? Grain by Grain”, George Johnson, 12-7-1999.
25. *Science News*, “Loops of Gravity: calculating a foamy quantum spacetime”, Ivars Peterson, 6-13-1998.
26. *Discover*, “Beyond Einstein: Is Space Loopy?”, Marcia Bartusiak, April 1993.

Science fiction books making extensive reference to my scientific work

1. *Blue Mars*, by Kim Stanley Robinson (Bantam, New York, 1996.)
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