

GUSTAVO RODRIGUES ROCHA

Brazilian (date of birth: 05/JUL/1979)

PRIVATE ADDRESS:

Rua Padre Demerval Gomes, 244, APT 202
Belo Horizonte, 30535-470, Minas Gerais, Brazil

INSTITUTIONAL ADDRESS:

Universidade Estadual de Feira de Santana
Av. Transnordestina, s/n, Novo Horizonte
Feira de Santana, 44036-900, Bahia, Brazil

ACADEMIC POSITIONS

- 2010 –. Assistant Professor. Department of Physics, Universidade Estadual de Feira de Santana (UEFS).
- 2009 – 2010. Visiting Professor. Department of Physics, Universidade Estadual de Feira de Santana (UEFS).
2008. Assistant Professor. Department of Physics and Chemistry, Pontifícia Universidade Católica de Minas Gerais (PUC-MG).
- 2006 – 2008. Assistant Professor. Department of Mathematics, Fundação Educacional do Vale do Jequitinhonha (FEVALE).

EDUCATION

2015. **Ph.D.** in History of Science. Program in History, Philosophy and Science Teaching, Universidade Federal da Bahia (UFBA).
Thesis: “A Cultural History of the Re-enchantment of the World through Quantum Theory”.
2007. **M.S.** in Microfabrication and Microelectronics. (UNFINISHED, completed 16 credits towards a M.S. degree) Universidade Federal de Minas Gerais (UFMG).
2006. **M.A.** in History of Science. Universidade Federal de Minas Gerais (UFMG).
Thesis: “A History of Atomism: The Construction and Deconstruction of a Syntactic-Semantic View of Scientific Knowledge”.
2003. **B.S.** in Physics (minor in Philosophy). Universidade Federal de Minas Gerais (UFMG).

FELLOWSHIPS, SCHOLARSHIPS, INTERNSHIPS

2018. Visiting Scholar at the **Stellenbosch Institute for Advanced Study (STIAS)**, South Africa.
(a research program led by Chris A. Fuchs titled *The Search for a QBist Metaphysic*)
- 2016 – 2018. Visiting Scholar at the **Center for Science, Technology, Medicine & Society (CSTMS) at the University of California, Berkeley (UC Berkeley)**.
(with an *Oxford Templeton Latin America Scholarship* for the academic year 2016-2017)
- 2012 – 2013. Visiting Scholar at the **Program in Science, Technology, and Society at the Massachusetts Institute of Technology (MIT STS)**.
(with a *CAPES Fulbright Scholarship* for the academic year 2012-2013)
- 2003 – 2004. Internship at the **Frei Rosário Astronomical Observatory of the Federal University of Minas Gerais (UFMG)**, Brazil.
2000. Internship at **ETAS (Entwicklungs und Applikationswerkzeuge für Elektronische Systeme), BOSCH**, Stuttgart, Germany. (as part of an IAESTE program)
(IAESTE: International Association for the Exchange of Students for Technical Experience)

GRANTS AND AWARDS BY YEAR

2018. **(1)** AIP and EPS Grants both to organize and take part of the joint 3rd International Conference on the History of Physics under the auspices of the European Physical Society (EPS) and the 4th Early-Career Conference for Historians in the Physical Sciences of the American Institute of Physics (AIP) in San Sebastian, Spain, 17-20 October, 2018. **(2)** 2018 Edition of the Inter-Division Teaching Commission (IDTC) Grant and **(3)** BSHS Butler

Eyles Grant to participate in the ESHS Biennial Conference 2018 in conjunction with the BSHS in London, 14-17 September, 2018. **(4)** Scholarship for the 2-week CRASSH workshop at the University of Cambridge, UK, *Religious Diversity and the Secular University* project, 2-13 July, 2018, funded by the Andrew W. Mellon Foundation.

2017. **(1)** Travel Grant awarded by the Ian Ramsey Centre for Science and Religion (henceforth IRC), University of Oxford, to participate in the Final Conference of the Oxford project *Science, Philosophy and Theology in Latin America*, funded by the Templeton Foundation, in Santiago, Chile, 25-27 September, 2017. **(2)** Latin America Library Book Grant, on behalf of the State University of Feira de Santana (UEFS), awarded by the IRC. **(3)** National Science Foundation (NSF) Travel Grant to participate in the *History of Science Society* (henceforth HSS) Annual Meeting in Toronto, Canada, 9-12 November, 2017. **(4)** Travel Grant awarded by the *Commission on the History of Physics* of the *Division of the History of Science and Technology* to participate in the International Congress of the History of Science and Technology (ICHST) in Rio de Janeiro, Brazil, 23-29 July, 2017.

2016. **(1)** *American Institute of Physics* Grant-in-Aid from the *Center for History of Physics* to interview Geoffrey Chew in Berkeley, CA, for the *Niels Bohr Library & Archives*. **(2)** *History of Science Society* Travel Grant to participate in the 2016 HSS Annual Meeting in Atlanta, Georgia, November 3-6, 2016. **(3)** IRC Travel Grant to participate in the Workshop “The Brain, the Mind, and the Human Person” in Salvador, Brazil, 15-19 August, 2016. **(4)** *American Institute of Physics* Travel Grant to participate in the *Center for History of Physics* Conference for Early-Career Historians of the Physical Sciences, in Annapolis, Maryland, April 6-10, 2016.

2007. **(1)** CAPES/ PRODOC Publishing Award for the publication of the book *A History of Atomism: How We Have Come to Know the World as We Know It* [Portuguese].

2005 **(1)** CNPq Master’s Thesis Research Improvement Grant-in-Aid [CNPq: *Conselho Nacional de Desenvolvimento Científico e Tecnológico*].

2002 **(1)** PAD Student Improvement Program Grant-in-Aid for undergrad students’ early research [PAD: *Programa de Aprimoramento Discente*].

RELEVANT EDUCATIONAL ACTIVITIES BY YEAR

2018. **(1)** HAPP Network Summer School on History of Physics: Scientific Instruments and Environmental Physics of the *St Cross Centre for the History and Philosophy of Physics* at the University of Oxford, UK, 20-24 August, 2018. **(2)** CRASSH Summer School 2018: Religious Diversity and the Secular University of the *Centre for Research in the Arts, Social Sciences and Humanities* (CRASSH) at the University of Cambridge, UK, 2-13 July, 2018.

2017. **(1)** Scientific Writing and Publishing Nature Masterclasses (50 hours). **(2)** 2017 Spring Oral History Workshop (16 hours), University of California, Berkeley, USA.

2014 – 2015. **(1)** IFA German Course [IFA: *Institut Für Auslandsbeziehungen*] (464 hours), Stuttgart, Germany.

2012. **(1)** Filmmaking Workshop, *New York Film Academy School* (NYFA) (40 hours), New York, USA.

2011. **(1)** IFA German Course [IFA: *Institut Für Auslandsbeziehungen*] (205 hours), Stuttgart, Germany.

2008. **(1)** Course on Sociology of Scientific Knowledge with Dr. Harry Collins (15 hours), UFMG, Belo Horizonte, Brazil.

2005. **(1)** 3-month short visit to the *Department of History of Science* at Harvard University and the *Dibner Institute for the History of Science and Technology* at MIT, Cambridge, Massachusetts, USA.

2000. **(1)** English Course at Callan School of English (310 hours), London, England.

PUBLICATIONS

BOOKS

2007. ROCHA, G. R. *A History of Atomism: How We Have Come to Know the World as We Know It* [in Portuguese]. Belo Horizonte: Fino Traço Editora.

CHAPTERS IN BOOKS

2018. ROCHA, G. R. *On the Interaction Between Science and Culture – A Case Study: The Rise and Fall of the S-Matrix Theory and the Bootstrap Worldview* [in Portuguese], DFIS 15 anos, Feira de Santana: UEFS Editora. (Forthcoming)

2012. ROCHA, G. R. *Science Popularization and Nature of Science* [in Portuguese], in Ensino de Física: Reflexões, Abordagens & Práticas, eds. ALVES, A. S.; JESUS, J. C. O.; ROCHA, G. R. São Paulo: Editora Livraria da Física, 31-42.

2010. ROCHA, G. R. *What the Bleep Do We Know? The Cultural Phenomenon of Quantum Mysticism in the 20th Century* [in Portuguese], in História da Ciência no Cinema 3, eds. FIGUEIREDO, B. G.; SILVEIRA, A. J. T. Belo Horizonte: Argvmentvm Editora, 81-108.

EDITED VOLUMES

2012. ALVES, A. S.; JESUS, J. C. O.; ROCHA, G. R., eds. Ensino de Física: Reflexões, Abordagens & Práticas. São Paulo: Editora Livraria da Física.

PAPERS IN REFEREED JOURNALS

2018. ROCHA, G. R. *A Literature Review of Histories of Brazilian Philosophy*, in Tapuya: Latin American Science, Technology and Society. (Forthcoming)

2018. ROCHA, G. R. *Interview: Olival Freire Jr.*, in Transversal: International Journal for the Historiography of Science, 4 (2018) 174-181.

2017. ROCHA, G. R. *A Cultural History of the S-Matrix Theory: Geoffrey Chew and the Bootstrap Philosophy* [in Portuguese], in Revista Brasileira de História da Ciência, Rio de Janeiro, v. 10, n. 1, 49-69.

2017. ROCHA, G. R. *Interview: Helge Kragh*, in Transversal: International Journal for the Historiography of Science, 2 (2017) 233-237.

2017. ROCHA, G. R. *A Social History of the Concept of Femininity in Psychoanalysis from 1910 to 1930* [in Portuguese], in Scientiae Studia: Revista Latino-Americana de Filosofia e História da Ciência, São Paulo, v. 15, n.1, pp. 121-44.

2015. ROCHA, G. R. *The “Jesuit Edition” of Isaac Newton’s Principia Revisited* [in Portuguese], in Oficina do Historiador, v. 8, 194-2000.

2010. ROCHA, G. R. *Methodological Perspectives: An Outline of a Meta-Theoretical Model of Learning Theories* [in Portuguese], Caderno de Física da UEFS, v. 06, 31- 85.

2010. ROCHA, G. R. *Scientific Controversies: The Case of the Standard Model of Cosmology* [in Portuguese], in Caderno de Física da UEFS, v. 07, 65-85.

2009. ROCHA, G. R. *Realism and Anti-realism: What Can be Learnt from the History of Spin* [in Portuguese], in Principia (Coleção Rumos da Epistemologia), eds. MORTARI, C. A.; DUTRA, L. H. A. Florianópolis: NEL – UFSC, 75-82.

BOOK REVIEWS

2018. ROCHA, G. R. *What is Real? The unfinished quest for the meaning of quantum physics by Adam Becker* [in Portuguese], in Revista Brasileira de Ensino de Física, vol. 41, nº 1, (2019). (Forthcoming)

2017. ROCHA, G. R. *A Contribution to the Newtonian Scholarship: The “Jesuit Edition” of Isaac Newton’s Principia, a research in progress by Paolo Bussoti and Raffaele Pisano*, in Transversal: International Journal for the Historiography of Science, 2 (2017) 242-46.

2017. ROCHA, G. R. *The Territories of Science and Religion by Peter Harrison* [in Portuguese], in Horizonte: Revista de Estudos de Teologia e Ciências da Religião, Belo Horizonte, v. 15, N. 45, JAN./MAR. 2017, 326-332.

PUBLISHED TRANSLATIONS

2013. HOYNINGEN-HUENE, P. *Paul Feyerabend and Thomas Kuhn*, in Kuhn, Feyerabend e Incomensurabilidade: Textos Selecionados de Paul Hoyningen-Huene, eds. ABRAHÃO, L. H. L. São Paulo: Editora Unisinos, pp. 21-38.

2010. OSNAGHI, Stefano. *Does the Solution of the Measurement Problem along Bohr’s Lines Require Dualism?*, in Teoria Quântica: Estudos Históricos e Implicações Culturais, eds. FREIRE JR, O.; PESSOA JR, O.; BROMBERG, J. L. São Paulo: Editora Livraria da Física, pp. 229-249.

2006. MURZI, Mauro. *Rudolf Carnap (1891–1970)*, in <http://www.fafich.ufmg.br/~margutti/textos.htm> (originally from The Stanford Encyclopedia of Philosophy).

WORKS IN PROGRESS

A Cultural History of the Re-enchantment of the World through Quantum Theory (BOOK MANUSCRIPT).

A Shadow Episteme in the Turn of the Twentieth Century: Femininity between Censorship, Mediumship and Authorship (with Luana F. S. Rocha).

Interview: Evelyn Fox Keller (with Luana F. S. Rocha).

Interview: Sandra Harding (with Luana F. S. Rocha).

Negotiating Literary Genres in the Making of Science: The Case of the Non-Cloning Theorem (with Chris A. Fuchs).

SELECTED INVITED TALKS

2017. “The Quest for Meaning: Esalen at the Edge of the Future?”. *The Super Story Symposia Series* (guest talk). Esalen Institute, Big Sur, California, USA.

2016. “History of Science under the Point of View of *The Aim and Structure of Physical Theory* by Pierre Duhem”. IV Colóquio de História e Filosofia da Ciência. Universidade Federal de Minas Gerais, Belo Horizonte, Brazil.

2015. “The Social and Historical Context of the Origins of Special Relativity”. *Semana Nacional do Livro e da Biblioteca*. Universidade Estadual de Feira de Santana, Feira de Santana, Brazil.

2011. “The Role of History and Philosophy of Science to Science Teaching”. 1ª Semana de Física IFMG. Instituto Federal de Minas Gerais, Ouro Preto, Brazil.

2008. “Introduction to the Philosophy of Quantum Mechanics”. *Seminário Curso de Licenciatura em Física PUC Minas*. Pontifícia Universidade Católica de Minas Gerais (PUC-MG), Belo Horizonte, Brazil.

2007. “Introduction to the Historiography of Science”. *Seminário de Pesquisa do DEMAT*. Universidade Federal de Ouro Preto (UFOP), Ouro Preto, Brazil.

2006. “Measuring the Heavens in Ancient Astronomy”. *Prosear e Pensar: A História da Ciência e a História como Ciência*. Fundação Educacional do Vale do Jequitinhonha (Fevale) – Universidade Estadual de Minas Gerais (UEMG), Diamantina, Brazil.

SELECTED CONFERENCE PRESENTATIONS (OUT OF 45+ ACADEMIC CONFERENCES ATTENDED SINCE 2002)

2018. “‘Rejected Knowledge’ and Shadow Episteme in the Modern System of Knowledge”. *ESHS Biennial Conference 2018 in conjunction with the BSHS*, 14-17 September (upcoming), London, UK.

2017. “Anamorphosis as a Framework for an Epistemology of the Impossible”. *International Invitational Symposium on ‘Mind, Matter, and the New Real’*, 3-7 December, Centre for Theory and Research, Esalen Institute, Big Sur, California, USA.

2017. “Quantum Worldviews and Henry Stapp’s Model of Consciousness”. *The Final Conference of the Oxford Templeton Project Science, Philosophy & Theology – Latin America Perspectives*, 25-27 September, Pontifícia Universidad Católica de Chile, Santiago, Chile.

2017. “Worldviews and Scientific Research: The Case of the Rise and Fall of the S-Matrix Program and the Bootstrap Philosophy”. 25th *International Congress of History of Science and Technology*, 23-29 July, Rio de Janeiro, Brazil.

2016. “The Americanization of the S-Matrix Program from Werner Heisenberg to Geoffrey Chew: The Rise and Fall of the Bootstrap Worldview (1960s–1970s)”. 2016 *HSS Annual Meeting*, November 3-6, Atlanta, USA.

2016. “The Americanization of the S-Matrix Program from Werner Heisenberg to Geoffrey Chew: The Rise and Fall of the Bootstrap Worldview (1960s–1970s)”. *The Third Biennial Early-Career Conference for Historians of the Physical Sciences*, April 6-10, Annapolis, USA.

2010. “Nature of Science in Articles on Cosmology in Popular Science Magazines”. 3º *Congresso de História das Ciências e das Técnicas e Epistemologia*, October 13-15, Rio de Janeiro, Brazil.

2010. “The Development of the Popularization and Institutionalization of the Standard Model of Cosmology in Brazil”. VII *Encontro de Filosofia e História da Ciência do Conesul*, May 27-30, Canela, Brazil.

2010. “On an Essential Tension in the Arguments Advocating the Addition of History and Philosophy of Science in Science Curricula”. 1st *Latin American Conference of the International History, Philosophy and Science Teaching Group (IHPST-LA)*, August 19-21, Maresias, Brazil.

TEACHING EXPERIENCE (NOT AN EXHAUSTIVE LIST)

2009 –. Department of Physics, *Universidade Estadual de Feira de Santana (UEFS)*. COURSES TAUGHT: “Public Understanding of Science and Science Writing”, “History of Physics”, “Methods and Theories of Teaching Physics”, “Philosophical and Foundational Problems of Modern Physics”.

2008. Department Chemistry and Physic, *Pontifícia Universidade Católica de Minas Gerais (PUC-MG)*. COURSES TAUGHT: “Classical Mechanics II”, “Physics II”, “Experimental Physics I”, “Biophysics”.

2006 – 2008. Department of Mathematics, *Fundação Educacional do Vale do Jequitinhonha (FEVALE) – Universidade Estadual de Minas Gerais (UEMG)*. COURSES TAUGHT: “Physics I”, Physics II, Physics III, “Statistics II”, “Linear Algebra, Vector Algebra and Analytical Geometry”, “Probability and Random Variables”, “An Introduction to Complex Numbers”.

MONOGRAPHS, THESES, DISSERTATIONS COMMITTEES AND SUPERVISIONS IN NUMBERS

PhD dissertations committees as committee member: 2; PhD candidates currently being supervised: 2; Master’s candidates currently being supervised: 2; undergrad students currently under supervision: 4; undergrad and graduate students monographs supervised: 4; undergrad monographs committees as committee member: 4.

(currently a faculty member of the *Graduate Program in History, Philosophy and Science Teaching UFBA/ UEFS*)

MEDIA CONTRIBUTIONS

2018. Scientific American Brasil. *A Quântica Ficou Pop* (INTERVIEWED by Pablo Nogueira), Agosto 2018, ANO 17, N° 186, 36-39.

2013. ComCiência: Revista Eletrônica de Jornalismo Científico da Sociedade Brasileira para o Progresso da Ciência. *Divergências Astronômicas: Passado, Presente e Futuro* (INTERVIEWED by Cintia Cavalcanti), 10/10/2013.

PROFESSIONAL MEMBERSHIPS

Sociedade Brasileira de História da Ciência (SBHC) (2005–Present), History of Science Society (HSS) (2016–Present), British Society for the History of Science (BSHS) (2017–Present), European Society for the History of Science (ESHS) (2017–Present), Inter-Divisional Teaching Commission (IDTC) of the International Union of History and Philosophy of Science and Technology (IUHPST) (2018–Present).

PROFESSIONAL ACTIVITIES

Conference organizer: (1) 2018. 3rd International Conference on the History of Physics under the auspices of the European Physical Society and 4th Early-Career Conference for Historians in the Physical Sciences of the American Institute of Physics, 17-20 October 2018, Donostia-San Sebastian (Spain). (2) 2011. II Encontro Nacional de Pesquisadores em História das Ciências, 29 Nov–02 Dez 2011, Salvador (Brazil).

Best Thesis Award by SBHC organizer: (1) 2018 Edition. Sociedade Brasileira de História da Ciência (SBHC).

Referee service: (1) *Revista Brasileira de Ensino de Física*, (2) *History Research*, (3) *Oficina do Historiador*, (4) *Transversal: International Journal for the Historiography of Science*.

Editorial service: Associate Editor and Book Review Editor of *Transversal: International Journal for the Historiography of Science*.

LANGUAGE SKILLS

Portuguese (Native), English (C2), German (C1), French (B2), Spanish (B1) (according to the Common European Framework of Reference for Languages). SOME CERTIFICATES: *IFA-Zertifikat Deutsch C1* (2015), *Alliance Française/ CAPES certificate* (2005), *Cambridge Certificate for English* (2001).

REFERENCES

Dr. Mauro Lúcio Leitão Condé (UFMG) [master's thesis advisor]: maurollconde@gmail.com.

Dr. Osvaldo Pessoa Jr. (USP) [PhD advisor]: opessoa@usp.br.

Dr. Olival Freire Jr. (UFBA) [PhD co-advisor]: olival.freire@gmail.com.

Dr. David Kaiser (MIT) [PhD co-advisor]: dikaiser@mit.edu.

Postdoctoral research at UC Berkeley references:

Dr. David Presti (UC Berkeley): presti@berkeley.edu / Dr. Jeffrey Kripal (Rice University): jjkripal@rice.edu.