Curriculum Vitae

Alberto A. Martínez, Ph.D.

Academic Positions

Department of History, University of Texas at Austin
Associate Professor 2010–present; Assistant Professor 2008–2010; Lecturer 2005–2008

California Institute of Technology, Weisman Instructor in History of Science, 2004–2005

Books (*all publications are numbered*)

1. *The Cult of Pythagoras: Math and Myths*
   Pittsburgh: University of Pittsburgh Press, October 2012. xxiv + 264 pp.
   #1 featured book in the University of Pittsburgh Press fall 2012 catalog.
   #1 featured book in the History and Philosophy of Science, UPP 2012 catalog.
2. *Science Secrets: The Truth about Darwin's Finches, Einstein's Wife, and Other Myths*
   Pittsburgh: University of Pittsburgh Press, May 2011. xx + 324 pp.
   #1 featured book in the University of Pittsburgh Press spring/summer 2011 catalog.
   #5 Bestseller in History of Science, 2011-12, YBP Library Services, *Library Journal*
3. *Kinematics: The Lost Origins of Einstein's Relativity*
   Baltimore: Johns Hopkins University Press, July 2009. xix + 464 pp.
   #2 Bestseller in Mathematics, 2009-2010, YBP Library Services, *Library Journal*
4. *Negative Math; How Mathematical Rules Can Be Positively Bent*
   Princeton: Princeton University Press, 2006. x + 267 pp.
   #2 Bestseller in Mathematics, 2005-2006, YBP Library Services, *Library Journal*
5. Japanese Translation: *Negative Math* (Tokyo: Seidosha, 2007).

Education

Ph.D. University of Minnesota, Minneapolis, Major: History of Science and Technology; Minor: Philosophy of Science
M.A. New York University, Philosophy of Physics, Gallatin School, New York City (plus courses at Graduate School, CUNY, and at Vassar College, New York
B.A. Universidad de Puerto Rico, Río Piedras, Estudios Generales, *magna cum laude*

Research Positions

Visiting Research Fellow, Poincaré Archives, Université Nancy 2, Nancy, France, 06/2010
Research Associate, Dibner Institute at M.I.T., working as editor in the Physics of Scale history project, with S. S. Schweber. 12/2003 – 08/2004
Research Fellow, Center for Philosophy and History of Science, Boston University, and Center for Einstein Studies, advisor: John Stachel. 10/2003 – 08/2004
Postdoctoral Fellow, Dibner Institute for the History of Science and Technology, M.I.T., Cambridge, Mass. 09/2001 – 08/2003
Postdoctoral Fellow, Department of the History of Science, Harvard University, advisor: Erwin N. Hiebert. 09/2001 – 05/2003

Resident Scholar, Dibner Library of the History of Science and Technology,
NMAH, Smithsonian Institution, Washington D.C. 01/2001 – 08/2001

Peer-Reviewed Journal Articles

6. "Euler's 'Mistake'? The Radical Product Rule in Historical Perspective," *The American Mathematical Monthly* **114** (April, 2007), 273-285.
7. "Replication of Coulomb's Torsion Balance Experiment," *Archive for History of the Exact Sciences* **60** (2006), 517-563.
8. "Conventions and Inertial Reference Frames," *American Journal of Physics* **73**, No. 5 (May 2005), 452-454.
9. "Handling Evidence in History: The Case of Einstein's Wife," *School Science Review*, Vol. 86, No. 316 (March 2005), 49-56.
10. "Material History and Imaginary Clocks: Poincaré, Einstein, and Galison on Simultaneity," *Physics in Perspective* **6**, No. 2 (June 2004), 31-48.
11. "Kinematic Subtleties in Einstein's First Derivation of the Lorentz Transformations," *American Journal of Physics* **72**, No. 6 (June 2004), 790-798.
12. "Ritz, Einstein, and the Emission Hypothesis," *Physics in Perspective* **6**, No. 1 (April 2004), 4-28.

Other Academic Articles

13. "Relativity," *Oxford Encyclopedia of the Modern World*, ed. Peter N. Stearns (Oxford: Oxford University Press, 2008).
14. A. Martínez, S. S. Schweber, "Field Theories," in *New Dictionary of the History of Ideas*, ed. M. Horowitz, Vol. 2 (Charles Scribner's Sons / Thomson Gale, 2005), 831-834.
15. "Arguing about Einstein's Wife," *Physics World* **17**, No. 4 (April 2004), 14.
16. "Explanation, Accounting, and Scientific Understanding," *Cogitemus*, No. 2 (NYU 1995), 24-37.

Essay Reviews

17. "Revisiting the History of Relativity," Essay Review of Richard Staley's Einstein's Generation: The Origins of the Relativity, *Metascience* **20** (2011), 61-67.
18. "*The Myriad Pieces of Einstein's Remains*," Essay Review of "*The Collected Papers of Albert Einstein*, Vols. 1 to 12, by J. Stachel, et. al.," *Annals of Science* (July 2010), 1-14.
19. "There's No Pain in the FitzGerald Contraction, Is There?" *Studies in History and Philosophy of Modern Physics* **38** (2007), 209-215.

Book Reviews

20. "The Travelling Physicist," review of *Einstein on the Road*, by Josef Eisinger, in *Physics World*, Vol. 25, No. 4 (April 2012), pp. 40-41.
21. "*Einstein's Mistakes: The Human Failings of Genius*, by Hans C. Ohanian," *The Historian*, Vol. 72, No. 3 (September 2010), 722-723.
22. "*Einstein's Generation: The Origins of the Relativity Revolution*, by Staley Richard," *Studies in History and Philosophy of Modern Physics* **41** (2010), 366-367.
23. "*Concepts of Simultaneity: From Antiquity to Einstein and Beyond*, by Max Jammer," *Physics Today* **60**, No. 8 (August 2007), pp. 58-59.
24. "*Einstein 1905: The Standard of Greatness*, by John Rigden," *Physics Today* **59**, No. 3 (March 2006), 64-65.
25. "Railways and the Roots of Relativity: *Einstein's Clocks, Poincaré's Maps*, by Peter L. Galison," *Physics World* **16**, No. 11 (November 2003), 51.

26. "*Knots: Mathematics with a Twist*, by Alexei Sossinsky," *Isis* **94**, No. 4 (December 2003), 693-694.
27. "*Einstein from 'B' to 'Z,'* by John Stachel," *Physics in Perspective* **5**, No 3 (September 2003), 352-354.

Online Works

28. "Was Einstein Really Religious?" *Not Even Past* (online), History Department UT Austin, April 11, 2012.
29. Feature Article: "The Myth of Darwin's Finches," *Not Even Past*, History Department UT Austin (October 2011).
30. "Reply to Hubert Goenner," https://webspace.utexas.edu/aam829/1/m/Goenner.html August, 2011
31. "Reply to Suman Seth," https://webspace.utexas.edu/aam829/1/m/Seth.html July, 2011
32. "Reply to Hans C. Ohanian," https://webspace.utexas.edu/aam829/1/m/Ohanian.html June, 2011
33. "What is more significant: the start of the Civil War (12 April 1861) or the first human spaceflight (12 April 1961)? Chron.com (*Houston Chronicle*, May 2011).
34. "Dividing by Nothing," *Not Even Past*, History Department UT Austin (12 April 2011).
35. "*Physics of Scale*" (oral histories documenting the history of the physics of phase transitions) branch History of Recent Science and Technology project, Dibner Institute, M.I.T. Edited interviews of physicists: Peter Heller, Kenneth G. Wilson, Alexander Polyakov, Howard Schnitzer, Benjamin Widom, Alexander Patashinski, Igor E. Dzyaloshinskii; http://authors.library.caltech.edu/5456/ The following interviews of physicists were also edited by A. Martínez, with S. Schweber or K. Hall, pending approval from the interviewees: George Benedek, Michael E. Fisher, Giovanni Jona-Lasinio, Paul C. Martin, Valery L. Pokrovsy, H. Eugene Stanley, Peter Lepage.

Ph.D. Dissertation

36. *The Neglected Science of Motion: The Kinematic Roots of Relativity*, Ph.D. dissertation, University of Minnesota, 2 Vols., 507 pp.

Works on Education

37. "*Perspectives on Science and Math*, Version 1.0," Eighteen Lessons with Supplementary Materials, online and CDs (Austin: UTeach Institute, 2009), 213 pp.; part of the national replication of the UTeach program, used currently in 29 universities: Northern Arizona University; University of California, Berkeley; University of California, Irvine, University of Colorado, Boulder, University of Colorado, Colorado Springs; Florida State University; University of Florida, Columbus State University (Georgia); Southern Polytechnic State University (Georgia), University of West Georgia; Boise State University (Idaho), University of Kansas, Western Kentucky University, Louisiana State University, University of Massachusetts Lowell, Cleveland State University (Ohio), Temple University (Pennsylvania), Middle Tennessee State University, University of Memphis (Tennessee), University of Tennessee, Chattanooga, University of Tennessee, Knoxville, University of Houston, University of North Texas, University of Texas, Arlington, University of Texas, Austin; University of Texas, Brownsville; University of Texas, Dallas; University of Texas, Pan American; University of Texas, Tyler. http://uteach-institute.org/
38. Science Historian (Presenter and Consultant), "Essential Science for Teachers: Physical Sciences," Television Series and DVDs (now online), Harvard-Smithsonian Center for Astrophysics, Annenberg Foundation / Corporation for Public Broadcasting, Annenberg/CPB Channel, 2003-2004 http://www.learner.org/resources/series200.html
39. "What UTeach and the Current Replication Initiative Mean for the History of Science," with Bruce Hunt, *Newsletter of the History of Science Society*, Vol. 39, No. 3 (July 2010), 19-21.
40. "Teaching Disagreements in Science and Math," *Newsletter of the History of Science Society*, Vol. 3, No. 1 (April 2010), 18-19.

Online Resource

41. "Ten Years to Einstein's Relativity" self-made website describing Albert Einstein's path to creating his special theory of relativity, including a collection of 172 photographs of people, places, and documents, with links to dozens of primary source documents and websites. https://webspace.utexas.edu/aam829/1/m/Kinematics6.html

Service

Faculty Council, 2012-14
Budget Advisory Committee of the UT Faculty Council, 2012-13
Committee on Associate Professors, History Department, 2012
Affiliated Faculty, Core Texts and Ideas, College of Liberal Arts
Affiliated Faculty, Human Dimensions of Organizations, College of Liberal Arts
Affiliated Faculty, UTeach, College of Natural Sciences
Jefferson Center Steering Committee, Core Texts and Ideas, 2011-13
"History Graduate Studies" recruitment brochure (12 pages) for prospective students, 2009 and 2011
Post-Tenure review committee on Bruce Hunt, H.W. Brands, and others, 2010-11
Promotion sub-committee on Megan Seaholm, Fall 2011
Promotion sub-committee on Roger P. Hart, Fall 2010
Executive Committee, History Department, 2010-12
History Salaries sub-committee, Spring 2010
Lathrop Prize committee for undergraduate theses, 2009-10
Eastern European Search committee, 2008-09
History Dept. Graduate Admissions committee, 2008-09
History Dept. Minority Liaison Officer, 2008-09, Spring 2010

Courses Taught at UT Austin

HIS329U Perspectives on Science and Mathematics (History / UTeach Natural Sciences)
HIS322M History of Modern Science (History)
HIS350L Einstein in an Age of Conflicts (History)
TC302 UGS Scientists and Religion in History (Plan II / Signature)
HIS366K Biology, Behavior and Injustice (History)
UGS303 Paradoxes of Physics, with physics Prof. Richard Matzner (forthcoming)

Interviews

Interview on *Science Secrets*, by Jessica Sinn, in *UT Know* (online), reissued in *Further Findings*, *ShelfLife@Texas*, CoLA main webpage, College of Liberal Arts Public Affairs website, *Highbeam Research*, *Life & Letters Magazine* (print and online), all in Fall 2011.
Video Interview on Science Secrets, by Joan Neuberger, in *Not Even Past* (online), October 1, 2011
Newspaper Interview: "Professor Promotes Book on Myths of Science," *The Daily Texan*, June 9, 2011.
Department Interview: "Al Martínez to Speak and Sign Copies of his Third Book," June 7, 2011.

Selected Talks

"Einstein, Relativity and Myths," Jefferson Center for the Study of Core Texts and Ideas, UT Austin, October 18, 2012
"Franklin's Kite and Other Stories: Myths in History of Science?" Alumni College, Texas Exes, June 22, 2012

"Science Secrets: The Truth About Darwin's Finches, Einstein's Wife and Other Myths," UT NOVA, February 8, 2012
"Teaching Sciences and Math, using Myths," UTeach Institute National Workshop, November 11, 2011
"Teaching History of Mathematics," Workshop for Instructors Replicating the Course 'Perspectives on Science and Math," UTeach Institute, UT Austin, Student Activities Center, November 11, 2011
"Imagining Numbers! Inquiry Based Learning" Workshop for Instructors Replicating the Course 'Perspectives on Science and Math," UTeach Institute, Student Activities Center, November 11, 2011
"Teaching Perspectives" Workshop for Instructors Replicating the Course 'Perspectives on Science and Math," UTeach Institute, UT Austin, Student Activities Center, November 10, 2011
"Galileo, pagan heresies, and the Catholic Inquisition," History of Science Colloquium, UT Austin, October 28, 2011.
"The Evolution of Myths in History of Science: Galileo, Darwin, Einstein," University of Minnesota, History of Science Colloquium, September 23, 2011.
"Teaching Sciences and Math, using Myths and Disagreements," Discovery Learning Project / Educational Advancement Foundation, UT Austin, Student Union, September 21, 2011
"Franklin's Kite and Darwin's Finches," National Museum of American History, Smithsonian Institution, Washington D.C., July 19, 2011.
"Book Launch: *Science Secrets*," BookPeople, Austin, Texas, June 8, 2011.
"Discovery and Invention in History of Science," Annual Student Research Reception: Student Senate of College Councils, UT Austin, Etter-Harbin Alumni Center, April 25, 2011
"Darwin's Finches, Einstein's Wife, Franklin's Kite," Annual Reception for Dean's Scholars Students, College of Natural Sciences, UT Austin, Welch Hall, April 8, 2011
"The Function of Myths in History of Science," Phi Alpha Theta National Honor Society, Induction Ceremony for Students, University of Texas at Austin, September 30, 2010
"Secrets and Myths: Einstein's Path to Special Relativity," Physics Colloquium for Students and Faculty, University of Texas at Austin, John A. Wheeler Lecture Hall, September 22, 2010
"A Crisis in Physics and its Roots in Post-Revolutionary Paris," Gastcolloquium, Instituut voor Geschiedenis en Grondslagen, Utrecht, Netherlands, 17 June 2010.
"The Rise of Abstraction at the École Polytechnique," Poincaré Archives, Université Nancy 2, Nancy, France, 9 June 2010.
"Algebra against Geometry at the École Polytechnique," Fondation Maison des Sciences de l'Homme, Paris, France, 7 June 2010.
"French Military Algebra and its Troubles in Modern Physics," Mathematics Department, Northern Arizona University, April 20, 2010.
"Crimes of the Imagination in the History of Impossible Numbers," Annual Lecture for Honors Students in Mathematics, Northern Arizona University, April 20, 2010.
"Albert Einstein and the Structure of Scientific Revolutions," UT LAMP (Learning Activities for Mature People) lecture, Thomson Conference Center, Austin, February 2, 2010.
"Perspectives on Science and Math Conference," National Math and Science Initiative / UTeach Institute Workshop, University Teaching Center, Austin, October 30-31, 2009
"From the Dissertation to the Book," presentation for History graduate students, History Department, University of Texas at Austin, October 16, 2009
"Perspectives Roundtable Discussion," NMSI / UTeach Institute Annual Conference, AT&T Executive Education and Conference Center, Austin, May 28, 2009
"De Galileo a Einstein: Paradojas de la Luz," 4to Centenario de los Descubrimientos de Galileo, Universidad de Puerto Rico, 19 March 2009
"La Inquisición Católica y Galileo," 4to Centenario de los Descubrimientos de Galileo, Universidad de Puerto Rico, 17 March 2009
"From Ampère's Kinematics to Einstein's Relativity, in the HSS session: "Divergent Struggles in the Evolution of Relativity," History of Science Society Annual Meeting, Pittsburgh, November 7, 2008
"Co-Plenary Workshop: The National Replication of UTeach," History of Science Society Annual Meeting, Pittsburgh, November 6, 2008

"Intellectual Entrepreneurship: Pre-Graduate School Internships," Presentation for Students, Panelist, LBJ Room, Communication School, UT Austin, October 9, 2008

"Teaching History to Science and Math Majors," UTeach National Conference, Thomson Conference Center, UT Austin, May 22, 2008

"A Crisis in Science and its Roots in Modern France," Modern Studies Group, Blanton Museum, UT Austin, March 28, 2008

"Tracing Back from Relativity to Developmental Psychology" History Department, Michigan State University, East Lansing, January 17, 2007

"Subtractive Talk: Writing about Einstein in 1905 (after the 2005 Commotion has Finally Died Down)" Southwestern University, Georgetown, Texas, April 21, 2006

"Did Miza Make Relativity?" Einstein-Jahr in Bern; Entdeckung, Kreativität und Innovations-kultur. Universität Bern, Kultur-Casino Bern, Switzerland, July 7, 2005.

"La Educación como la quería Einstein," Simposio Centenario de la Relatividad: Obra de Einstein y sus Implicaciones, Universidad de Puerto Rico, San Juan, March 29, 2005

"Patent Disagreements in the Histories of Special Relativity" HGR7. Seventh International Conference on the History of General Relativity, Max Planck Institute for the History of Science and Fundación Orotava, Tenerife, Canarias, March 10, 2005

"Creative Moment: Making Special Relativity" Einstein Centennial Event, Center for Philosophy and History of Science, and, Center for Einstein Studies, Boston University, Boston, December 6, 2004.

"Recent Controversies in the History of Einstein's Relativity" Humanities and Social Sciences Division, California Institute of Technology, Pasadena, CA. October 23, 2004

"Conventional Quantities and Possible Measurements" Philosophy of Physics Group, Boston University, Boston, Mass. April 28, 2004.

"Classifying Kinematics: My Science is More Fundamental than Yours!" Dibner Institute for the History of Science and Technology, at MIT. Cambridge, Mass. May 7, 2002.

"An Overview of Nineteenth Century Kinematics" Laws of Motion Group at MIT (George Smith, Domenico Bertoloni Meli, Jim Voelkel, Mordechai Feingold, Andrew Janiak, Manolis Patiniotis). Cambridge, Mass. December 4, 2001.

"Much Ado About Less than Nothing: forgotten paradoxes showing that you actually had good reasons to be confused by negative and imaginary numbers in school, sensing important issues in the history of physics and math." National Museum of American History, Smithsonian Institution. Washington D.C. June 19, 2001.

"Origins of Special Relativity in Electrodynamics, Optics, and Kinematics" University of Maryland, College Park, Maryland. April 17, 2001

Website

Includes articles, introductions and reviews of *Negative Math* (Princeton UP 2005), *Kinematics* (Johns Hopkins UP 2009), *Science Secrets* (Pittsburgh UP 2011), *Cult of Pythagoras* (Pittsburgh UP 2012): https://webspace.utexas.edu/aam829/1/m/About.html

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