

JAMES R. HOFMANN

2017-2018 Resident Scholar
Collegeville Institute
Collegeville, MN 56321
jhofmann@csbsju.edu

Professor Emeritus
Liberal Studies Department: California State University Fullerton
Fullerton, CA 92834
jhofmann@fullerton.edu

B.S. Physics, Saint John's University (Collegeville, MN) 1969
M.S. Physics, University of Minnesota, 1974
Ph.D. History and Philosophy of Science, University of Pittsburgh, 1982.

Professional Society Memberships

American Catholic Philosophical Association
Center for Theology and the Natural Sciences
Fellowship of Catholic Scholars
History of Science Society
International Society for the History, Philosophy, and Social Studies of Biology

Books

[André-Marie Ampère](#), Blackwell Publishers, Oxford and Boston, 1995; reissued by Cambridge University Press as *André-Marie Ampère: Enlightenment and Electrodynamics*, 1996; paperback edition, 2006.

Articles

[“Rate variation during molecular evolution: creationism and the cytochrome c molecular clock”](#), *Evolution: Education and Outreach*, 2017, 10(1), 1-17. doi:10.1186/s12052-017-0064-4.

[“A Tale of Two Crocoducks: Creationist Misuses of Molecular Evolution”](#), *Science & Education*, 23, no. 10, pp. 2095-2117, Oct. 2014. DOI 10.1007/s11191-014-9696-8. [pdf](#)

[“The Fact of Evolution: Implications for Science Education”](#), *Science & Education*, 2003, vol. 12, pp. 729-760. (co-authored with Bruce H. Weber)

[“Darcy’s Law and Structural Explanation in Hydrology”](#), in D. Hull, M. Forbes and K. Okruhlik, (eds.), *PSA 1992: Proceedings of the 1992 Biennial Meeting of the Philosophy of Science Association*, volume 1. (1992, East Lansing: Philosophy of Science Association), pp. 23-35. (coauthored with Paul A. Hofmann)

"[How the Models of Chemistry Vie](#)", in A. Fine, M. Forbes and L. Wessels (eds.), *PSA 1990: Proceedings of the 1990 Biennial Meeting of the Philosophy of Science Association*. (1990, East Lansing: Philosophy of Science Association), vol. 1, pp. 405-419.

"[Engineers under Fire: Socially Responsible Engineering at the University of El Salvador](#)", in M. Rogers and N. Warren (eds.), *A Delicate Balance: Technics, Culture and Consequences*, (1990: Los Angeles: Institute of Electrical and Electronic Engineers), pp. 123-129. (coauthored with Andrea Stoutland)

"[Ampère's Electrodynamics and the Acceptability of Guiding Assumptions](#)", in A. Donavan, L. Laudan and R. Laudan (eds.), *Scrutinizing Science: Empirical Studies of Scientific Change* (1988: Dordrecht, D. Reidel Publishing Company), pp. 201-217; 1992 second edition (Baltimore and London: Johns Hopkins Press), pp. 201-217.

"[Ampère's Invention of Equilibrium Apparatus: A Response to Experimental Anomaly](#)", *The British Journal for the History of Science*, (1987) vol. 20, pp. 309-341.

"[Ampère, Electrodynamics and Experimental Evidence](#)", *OSIRIS*, (1987), vol. 3, pp. 45-76.

Book Review Essays

Exploratory Experiments: Ampère, Faraday, and the Origins of Electrodynamics by Friedrich Steinle, 2016. [Essay review](#) for *Physics in Perspective*, September 2017, 19(3), 307-318.

[Convolutions in French Mathematics, 1800-1840: From the Calculus and Mechanics to Mathematical Analysis and Mathematical Physics](#) by I. Grattan-Guinness, Boston: Birkhauser Publishers, 1990, 3 volumes, and *Naissance d'un nouveau pouvoir: Science et savants en France 1793-1824* by Jean and Nicole Dhombres, Paris: Editions Payot, 1989; *ISIS*, volume 83, 1992, pp. 291-297.

Book Reviews

Huxley's Church & Maxwell's Demon by Matthew Stanley, Chicago: University of Chicago Press, 2015; forthcoming in *Physics in Perspective*.

[Biology and Ideology from Descartes to Dawkins](#) by Denis R. Alexander and Ronald L. Numbers, eds. Chicago and London: University of Chicago Press, 2010; in *HOPOS: The Journal of the International Society for the History of Philosophy of Science*, Vol. 3, No. 1, Spring 2013, pp. 175-179. <http://www.jstor.org/stable/10.1086/667770>

[The Evolution Controversy; A Survey of Competing Theories](#), Thomas B. Fowler and Daniel Kuebler, Baker Academic, 2007; in *Reports of the National Center for Science Education*, volume 30(1-2), Jan.– Apr. 2010, pp. 51-52.

The Physics of Chance: From Blaise Pascal to Neils Bohr, Charles Ruhla, Oxford: Oxford University Press, 1992; in *ISIS*, volume 85, 1994, pp. 680-681.

L'Invention de L'Ingenieur Moderne: L'École des Ponts et Chaussées 1747-1851, Antoine Picon, Presses de l'École Nationale des Ponts et Chaussées, 1992; in *ISIS*, vol. 85, 1994, pp. 536-537.

The Story of Physics, L. Motz & J. Weaver, Plenum Press, 1989; *ISIS*, vol. 82, 1991, 539-540.
Reading the Mind of God: In Search of the Principle of Universality, J. Trefil, Charles Scribner's Sons, 1989; in *ISIS*, vol. 82, 1991, pp. 349-350.

James Joule: A Biography, D.S.L. Cardwell, St. Martin's Press, 1989; in *ISIS*, vol. 82, 1991, pp. 149-150.

The How and the Why: An Essay on the Origins and Development of Physical Theory, David Park, Princeton University Press, 1989; in *ISIS* vol.81, 1990, pp. 319-320.

Beyond the Laboratory: Scientists as Political Activists in 1930's America, Peter J. Kuznick, University of Chicago Press, 1987; in *Science and Nature*, No. 9/10, 1989, pp. 166-169.

Revolution in Science, I. Bernard Cohen, Harvard University Press, 1985; in *Queen's Quarterly*, vol. 93, number 2, Summer 1986, pp. 443-446.

Selected Presentations

“The non-uniform cytochrome c molecular clock and creationism”, presented at **Evolution 2016**, Austin Texas, June 18, 2016. Video: <https://www.youtube.com/watch?v=LDvDurOHP90>

“Charles Darwin & Intermediate Forms”, CSUF celebration of Charles Darwin’s birthday, February 10, 2014, sponsored by the Cooper Center.

“[A Tale of Two Crocoducks: Creationist Misuses of Molecular Evolution](#)”, presented to the twelfth biennial International History, Philosophy and Science Teaching (IHPST) Conference, Pittsburgh PA, June 22, 2013.

Debate participant with Michael Smith on “Christianity and Evolution: Conflict or Dialogue?” at Santiago Canyon College, April 2, 2009.

“The law of higgledy-piggledy revisited: contingency and supernatural design”, presented at the annual meeting of the American Scientific Affiliation, University of Edinburgh, Edinburgh, Scotland, August 4, 2007.

Debate participant with Craig Nelson, Paul Nelson, and John Mark Reynolds; “Intelligent Design: Religion or Science?”, May 21, 2006; Rolling Hills Covenant Church, Rolling Hills Estates, CA.

Panel participant: “Intelligent Design Under Fire - Experts Cross-Examine the Top Proponents of Intelligent Design Theory”, May 12, 2006; BIOLA University, La Mirada CA.