

Elena Castellani

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Webpage <https://www.unifi.it/p-doc2-2013-200007-C-3f2a3d313a282c-0.html>

Languages spoken: Italian, French, English, German

Education, Fellowships, Awards:

1978-83: University of Florence, Laurea (B.A.-MA) in theoretical physics. Thesis: "Composite operators in functional formalism" (R. Casalbuoni, advisor), summa cum laude (April 1983).

1986-1989: University of Milan, Ph.D. in philosophy with Fellowship awarded.

1990-1991: Institute of Theoretical Physics, Cologne, DAAD Fellowship.

1991: Ph.D degree. Thesis: "Symmetry and physical theories" (E. Rambaldi, advisor).

1991-1992: Institute of Theoretical Physics, Cologne, Heinrich Hertz Stiftung Fellowship.

1993-1994: Department of Philosophy, Princeton, CNR-NATO Advanced Fellowship.

1998-2000: Department of Philosophy, Florence, Postdoctoral position.

2000-2002: Department of Philosophy, Florence, Research Fellowship.

2001-2002: Department of Physics, Florence, Fixed term Lecturer in Foundations of Physics.

2002: Medal "Le Scienze" (Italian version of Scientific American) for the Foundations of Physics.

2002-2005: Permanent Researcher position at the Department of Philosophy, Florence.

2005 -- : Associate Professor in Philosophy of Science at the Department of Philosophy, Florence.

2013 (Dec., 4): National Academic Qualification as Full Professor in Philosophy of Science (Abilitazione scientifica nazionale alle funzioni di professore di prima fascia, sett. 11/C2-Logica, storia e filosofia della scienza).

Visiting Senior Fellowships:

-Ludwig-Maximilians-Universität (LMU), München, Munich Center for Mathematical Philosophy (MCMP): 24.11- 24.12/2015; 16.10-31.10/2018.

- Vossius Center for History of Humanities and Sciences, Amsterdam: 01.01-31.01/2018

- Erasmus Staff Mobility: Paris1 (Sorbonne-Panthéon), Paris: 2-8.12.18.

- Visiting Fellow: MECS, Lüneburg, 16-23.06.19.

Member of Boards/Committees:

- – Editorial advisory board: *Studies in History and Philosophy of Modern Physics* (SHPMP)
- – Program Committees: EPSA 2007, Madrid (14.-17.11, 2007); Seminar on the Philosophical Foundations of Quantum Gravity, University of Illinois at Chicago (27.-29.11, 2013); Seminar on the Philosophical Foundations of Quantum Gravity, University of California, San Diego (13.-14.03, 2015); III Postgraduate Conference on Logic and Philosophy of Science, Urbino (30.05-01.06, 2016); SILFS 2017, Bologna (20- 23.06, 2017); Foundations 2018-The 19th UK and European Meeting on the Foundations of Physics, Utrecht (10.07-13.07, 2018); Foundations 2020-The 20th UK and European Meeting on the Foundations of Physics, Paris (8-10.07, 2020).
- – Selection Committees for Professorship: Sydney, Paris1, Paris4
- – Steering Committees: SILFS (Italian Society of Logic and Philosophy of Science), 2014-2017; EPSA (European Philosophy of Science Association), starting september 2017.

Research Interests:

History and Philosophy of Physics, Philosophy of Space and Time, Philosophy of Quantum Field Theory, Ontological Aspects of Physical Theories, History and Meaning of Symmetries, Reductionism and Emergence, Structuralism in Physics, Structural Realism, Dualities, History and philosophy of String Theory, Models and Scientific Representation, Naturalness and Fine-Tuning, Theory assessment.

Books

- (ed.) *Interpreting Bodies: Classical and Quantum Objects in Modern Physics*, Princeton: Princeton University Press, 1998.
- *Simmetria e natura. Dalle armonie delle figure alle invarianze delle leggi*, Roma-Bari: Laterza, 2000.
- (ed.) *Simmetria e realtà*, special issue of *Le Scienze* (Italian version of *Scientific American*), n. **118**, 2001.
- (ed. with K. Brading) *Symmetries in Physics: Philosophical Reflections*, Cambridge: Cambridge University Press, 2003.
- *Feynman*, special issue of *Le Scienze*, n. 35, November 2003 (in French: *Feynman*, special issue of *Pour la Science*, n. 19, 2004). In collaboration with Leonardo Castellani.
- (ed. with A. Cappelli, F. Colomo, P. Di Vecchia), *The Birth of String Theory*, Cambridge: Cambridge University Press, 2012.
- (with M. Morganti), *La filosofia della scienza*, Il Mulino, 2019.

Selection of recent papers:

- A. Borrelli and E. Castellani (2019). The Practice of Naturalness: A Historical-Philosophical Perspective. *Foundations of Physics* 49: 860-878.
- E. Castellani (2018). Scientific Methodology: A View from Early String Theory. In R. Dawid, R. Dardashti, and K. Thébault (eds.), *Epistemology of fundamental physics: Why trust a theory?*, Cambridge: Cambridge University Press.
- E. Castellani (2017). Duality and 'particle' democracy. *Studies in History and Philosophy of Modern Physics*, 59: 100- 108.
- E. Castellani and D. Rickles (2017). Introduction to special issue on dualities. *Studies in History and Philosophy of Modern Physics*, 59: 1-5.
- K. Brading, E. Castellani, and N. Teh (2017). Symmetry and symmetry breaking. *The Stanford Encyclopedia of Philosophy* Edward N. Zalta (ed.).
- E. Castellani and J. Ismael (2016). Which Curie's Principle? *Philosophy of Science*, 83: 1002-1013.
- E. Castellani (2012). Early string theory as a challenging case study for philosophers. In: A. Cappelli, E. Castellani, F. Colomo, P. Di Vecchia. *The birth of string theory*, Cambridge, UK: Cambridge University Press. pp. 63-78.

Selected papers:

see <http://unifi.academia.edu/ElenaCastellani>

Complete publications' list:

Pubblicazioni: <https://www.unifi.it/p-doc2-2013-200007-C-3f2a3d313a282c-0.html>

More detailed CV (Italian):

<https://www.unifi.it/p-doc2-2013-200007-C-3f2a3d313a282c-0.html>

Teaching:

Insegnamenti <http://www.unifi.it/p-doc2-2013-200007-C-3f2a3d313a282c-0.html>

