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Metaphysics of Science
Syllabus
Se 2h. A Me 12-14 A 206
Modules: MA2, MA5

Description. In this seminar, we will discuss metaphysical issues as they arise in contemporary science. First, we will treat the relationship between metaphysics and science in general, and between metaphysics and physics in particular. Second, we will consider specific problems such as time and relativity, monism, and discernibility, structuralism and dependence, and monism and functionalism about objects in the context of quantum physics, and metaphysical questions in the context of biology.

(Tentative) Schedule

	Topic	Readings
20.09	Introduction	No Readings
27.09	Science and Metaphysics I	Ladyman, J. Ross, D. 2007, <i>Everything Must Go</i> , Oxford, OUP (Chapter 1. Secs. 1.1 – 1.4)
4.10	Science and Metaphysics II	Morganti, M. Tahko, T. 2017. Moderately Naturalistic Metaphysics, <i>Synthese</i> 194: 2557-2570.
11.10	Relativity and Spacetime I	Gödel, K. 1949. A Remark about the Relationship between Relativity Theory and Idealistic Philosophy. In A. Schlipp (ed.). <i>Albert Einstein: Philosopher-Scientist</i> , Harper and Dowe, New York: Harper, pp.557-562; Earman, J. 1996. <i>Bangs, Crunches, Whimpers, and Shrieks</i> , Oxford, OUP (Appendix to Chapter 6)
18.10	Relativity and Spacetime II	Gilmore, C. Costa, D. Calosi, C. 2016. Three four-dimensionalisms, <i>Philosophy Compass</i> 11 (2): 102-120.
25.10	Relativity and Persistence I	Gilmore, C. 2006. Where in the relativistic World Are We?, <i>Philosophical Perspectives</i> 23. <i>Metaphysics</i> , pp. 199-236.

1.11	Relativity and Persistence II	Gibson, I. Pooley, O. 2006, Relativistic Persistence, <i>Philosophical Perspectives</i> 20. <i>Metaphysics</i> , pp. 157-198
8.11	Semaine de Lecture	No Readings
15.11	Quantum Mechanics and Monism I	Ismael, J. Schaffer, J. 2016. Quantum Holism: Non-Separability as Common Ground, <i>Synthese</i> , DOI: 10.1007/s11229-016-1201-2
22.11	Quantum Mechanics and Monism II	Ney, A. 2017. Finding the World in the Wave Function: Some Strategies for Solving the Macro-Object Problem. <i>Synthese</i> . DOI: 10.1007/s11229-017-1349-4
29.11	Quantum Mechanics and Structuralism I	McKenzie, K. 2014. Priority and Particle Physics: Ontic Structural Realism as a Priority Thesis, <i>British Journal for the Philosophy of Science</i> , 65: 353-380.
6.12	Quantum Mechanics and Structuralism II	Wolff, J. 2012. Do Objects Depend on Structures?, <i>British Journal for the Philosophy of Science</i> , 63, 607-625.
13.12	Metaphysics of Biology I	Paul. L. A. 2013. Realism about structure and kinds. In Mumford, S and Tugby, M (eds.), <i>Metaphysics and Science</i> , Oxford, OUP: 183-198.
20.12	Metaphysics of Biology II	Beebe, H. 2013. How to carve across the joints in nature without abandoning Kripke-Putnam semantics. In Mumford, S and Tugby, M (eds.), <i>Metaphysics and Science</i> , Oxford, OUP: 141-163.