

PHIL 9204 Seminar on Emergence  
Winter, 2009  
Official Course Website:(currently under construction)  
<http://www.seer.uwo.ca/batterman/>

We will examine various issues on the topic of emergence. “Unpredictability,” “irreducibility,” “supervenience,” “unexplainability,” “novel causal powers,” are all concepts that have been employed to try to get a grip on the slippery notion of emergence in the philosophical literature. We will discuss emergence from both philosophical and scientific perspectives.

Very Tentative Schedule of Readings:

WEEK:

- II Batterman, “Reduction” Borchert, Donald, ed. *Encyclopedia of Philosophy*, 2nd edition. Detroit: Macmillan Reference USA, 2006 <http://publish.uwo.ca/~rbatterm/reduction.pdf>; “Emergence in Physics” *Routledge Encyclopedia of Philosophy Online* , Routledge <http://publish.uwo.ca/~rbatterm/emergence-phys.pdf>; Timothy O’Connor and Hong Yu Wong, “Emergent Properties” <http://plato.stanford.edu/entries/properties-emergent/>
- III Jerry Fodor, “Special Sciences . . . .”\*; Batterman, *Devil* Chapter 5.
- IV Brian McLaughlin “The Rise and Fall of British Emergentism”\*
- V Jaegwon Kim, “Making Sense of Emergence”\*
- VI Paul Humphreys “How Properties Emerge”\*
- VII Mark Bedau, “Downward Causation and Autonomy in Weak Emergence”\*; Dan Dennett, “Real Patterns”\*;
- VIII Paul Anderson, “More is Different: Broken Symmetry and the Nature of the Hierarchical Structure”\*; Robert Laughlin and David Pines, “The Theory of Everything”\*
- IX Andreas Hüttemann. “Explanation, emergence, and quantum entanglement,” *Philosophy of Science*, 72:114127, 2005.

X Batterman, *Devil* Chapter 8.

XI TBA Readings in condensed matter physics.

Other supplementary articles to be announced. Articles marked with an “\*” can be found in the anthology *Emergence: Contemporary Readings in Philosophy and Science*, edited by Mark Bedau and Paul Humphreys, MIT Press which is the primary text for this course.

### Requirements

Term paper, weekly comments and criticisms of readings, class presentation.

Office Hours: Wednesday 1–3 TC 307 and by appointment.

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