Philosophy of Space and Time

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Evaluation: Participation, short responses, and research paper due at the end of the quarter. Brief description of the paper topic and / or outline, along with a bibliography, by November 30. Short responses: brief comments on reading assignments, due weekly at 5:00 p.m. on Wednesday before class (full credit for posting five responses over the course of the quarter).

Course Website & Readings: The course website is at http://sakai.ucla.edu; assigned readings, supplementary readings, updated schedules, etc. will be posted there. Readings will also be available in the copy room. Although I didn’t place any orders at the bookstore, you should probably buy a copy of Earman’s World Enough and Spacetime.

Topics

• Introduction: Space, Time and Motion in Classical Mechanics
  – Earman, World Enough and Spacetime, Chapters 2-3 (selections)

• The Classical Absolute-Relational Debate
  – Newton: Principia, Scholium to the Definitions, and De Gravitatione (selections)
  – Leibniz: Specimen Dynamicum, selections from correspondence with Huygens, Clarke
  – Earman, WEST, Chapters 1, 6.

• Relationalism Rehabilitated

• Incongruent Counterparts
  – Kant, “Concerning the Ultimate Origins...”

• Relativistic Spacetime


• Hole Argument and Background Independence

  – Recent debates on background independence

• Reconsidering the Absolute - Relational Debate


• “Constructive” / neoLorentzian Approach to Special Relativity


• Conventionality of Simultaneity and Geometry


• Other Possible topics

  – Singularities and causal structure in general relativity
  – Time’s arrow
  – Relativistic Cosmology