Intuitionistic Logic and Meaning

Professor Wesley Holliday

UC Berkeley, Fall 2016

Fr 1:30-3:30 234 Moses

Syllabus v. 1.1

Description

Graduate seminar on intuitionistic logic. Focus will be on different semantics for intuitionistic and intermediate logics—their mathematical features and philosophical significance. Readings from Dummett, Rumfitt, and work in progress by Bezhanishvili and Holliday.

Requirements

- Due each Thursday before midnight: please email me a question or questions you had about the week's reading, which we can discuss in the seminar on Friday.
- Due at the end of the term: research paper of 15-20 pages.
- Each enrolled student presents on the reading for one of the sessions. Other participants are also welcome to volunteer for presentations.

Contact

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Schedule

Aug. 26 Seminar Introduction. Dummett, Elements of Intuitionism, §1, and "The Philosophical Basis of Intuitionistic Logic"; Bezhanishvili and Holliday, "A Semantic Hierarchy for Intuitionistic Logic," §1.

Part I

- Sept. 2 Algebraic Semantics. Elements of Intuitionism, §5.1-2; Bezhanishvili and Holliday, §2.1.
- Sept. 9 **Topological Semantics**. *Elements of Intuitionism*, §5.3 (until subsection on Kripke Trees); Bezhanishvili and Holliday, §2.2.
- Sept. 16 Kripke Semantics. *Elements of Intuitionism*, rest of §5.3; Kripke, "Semantical Analysis of Intuitionistic Logic I"; Bezhanishvili and Holliday, §2.3.
- Sept. 23 **Beth Semantics**. *Elements of Intuitionism*, §5.4, §5.5 through p. 150, and §5.6 through p. 159; Bezhanishvili and Holliday, §3.1 and §4.1-4.4.
- Sept. 30 Nuclear Semantics, Dragalin Semantics. Bezhanishvili and Holliday, §3.2-3, §4.5-6.
- Oct. 7 **Dummett on Semantics**. *Elements of Intuitionism*, §7.1-2 and §7.4; Dummett, "Truth from a Constructive Standpoint."
- Oct. 14 No seminar. Make-up session may be scheduled. Part II
- Oct. 21 Rumfitt on Dummett's Verificationism. The Boundary Stones of Thought, §5.
- Oct. 28 Rumfitt's Truth-Ground Semantics. The Boundary Stones of Thought, §6 (skip §6.5).

- Nov. 4 Rumfitt on the Infinite and Infinitesimal. The Boundary Stones of Thought, §7.
- Nov. 11 No seminar (Veteran's Day).
- Nov. 18 Rumfitt on Vagueness. The Boundary Stones of Thought, §8.
- Nov. 25 No seminar (day after Thanksgiving).
- Dec. 2 Rumfitt on Set Theory. The Boundary Stones of Thought, §9-10.
- Dec. 9 Conclusions and Open Problems.