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Titolo	Wittgenstein's Annotations to Hardy's Course of Pure Mathematics : An Investigation of Wittgenstein's Non-Extensionalist Understanding of the Real Numbers / / by Juliet Floyd, Felix Mühlhölzer
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Descrizione fisica	1 online resource (330 pages)
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Nota di contenuto	Part 1. Analysis of the Annotations -- 1. The Context of Wittgenstein's Annotations -- 2. Wittgenstein's Non-Extensionalist Point of View -- 3. Irrational Numbers: The Annotations on pp. 2-9, with Commentary -- 4. The Law of the Excluded Middle: A Digression -- 5. The Continuum of Real Numbers: The Annotations on pp. 10-30, with Commentary -- 6. Functions and Limits: The Annotations on pp. 40-47 and 117-121, With Commentary -- Part 2. Applications -- 7. Wittgenstein on Cantor's Diagonal Method (Felix Mühlhölzer) -- 8. Mühlhölzer vs. Putnam on Wittgenstein and the Real Numbers (Juliet Floyd) -- Part 3. Images -- 9. Images of Wittgenstein's Annotations to Hardy's A Course of Pure Mathematics.
Sommario/riassunto	This monograph examines the private annotations that Ludwig Wittgenstein made to his copy of G.H. Hardy's classic textbook, A Course of Pure Mathematics. Complete with actual images of the annotations, it gives readers a more complete picture of Wittgenstein's

remarks on irrational numbers, which have only been published in an excerpted form and, as a result, have often been unjustly criticized. The authors first establish the context behind the annotations and discuss the historical role of Hardy's textbook. They then go on to outline Wittgenstein's non-extensionalist point of view on real numbers, assessing his manuscripts and published remarks and discussing attitudes in play in the philosophy of mathematics since Dedekind. Next, coverage focuses on the annotations themselves. The discussion encompasses irrational numbers (annotations on pages 2-9 of the 1941 edition of Hardy's book), the law of excluded middle in mathematics and the notion of an "improper picture," the continuum of real numbers (annotations on pages 10-30), and Wittgenstein's attitude toward functions and limits, which scrutinizes his annotations on pages 40-47 and 117-121 and examines their challenges and meaning in light of underlying manuscripts. Overall, the authors show that Wittgenstein's argumentation should not be taken to reject Dedekind cuts *per se*, but only a one-sided, reductive extensionalism that belies actual mathematical practice. They discuss and defend Wittgenstein's version of non-extensionalism and, in two final essays, debate the nature and contemporary relevance of this view. .
