

Hilbert, David

Natur und mathematisches Erkennen: Vorlesungen, gehalten 1919-1920 in Göttingen. Nach der Ausarbeitung von Paul Bernays. Hrsg. von David E. Rowe. (German) Zbl 0741.01030
Basel etc.: Birkhäuser. xxiv, 101 p. (1992).

Hilbert delivered a course of lectures on “Natur und mathematisches Erkennen” in the autumn of 1919. These lectures, published for the first time in this volume, represent the clearest and most comprehensive statement of his mature views on the nature of mathematical and physical knowledge. The edition is based on a typescript copy of Hilbert’s lectures prepared by Hilbert’s long-time assistant, Paul Bernays. The Bernays’ Ausarbeitung, located in the Library of the Mathematisches Institut in Göttingen, contains several handwritten emendations and comments, some of which appear in Hilbert’s own hand. This latter circumstance lends additional authenticity to the Bernay’s work, since it suggests that Hilbert had studied the manuscript and that he had found its contents accurately reflected the ideas and opinions he wished to express. As can be seen from the Table of Contents, the conceptual framework Hilbert adopted for his lectures on “Natur und mathematisches Erkennen” follows a triadic pattern. Thus, in Parts I and II he pursued parallel critiques of conventional views about the nature of mathematical knowledge, on the one hand, and physical knowledge, on the other, in accordance with the tripartite conceptual schema of “Begriff, Urteil, Schluß”. This set the stage for Part III, where he undertook a lengthy mathematical analysis of three interrelated problems — causality, probability, and ideality — explored in a manner designed to shed light on certain fundamental philosophical concerns.

Reviewer: [R.Beedgen \(Mannheim\)](#)

MSC:

- [01A75](#) Collected or selected works; reprintings or translations of classics
- [00A79](#) Physics
- [01-01](#) Introductory exposition (textbooks, tutorial papers, etc.) pertaining to history and biography

Cited in 1 Review Cited in 9 Documents

Keywords:

[mathematical and physical knowledge](#); [causality](#); [probability](#); [ideality](#)