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Petr Hájek (editor)

Gödel '96: Logical Foundations of Mathematics, Computer Science, and Physics—Kurt Gödel's Legacy,

Wellesley: Assoc. for Symbolic Logic/A K Peters, 1996, reprinted 2001 viii + 322 pp. ISBN 1568811535

REVIEW

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This festschrift constitutes the proceedings of a conference held in Brno, Czech Republic, commemorating the 90th anniversary of Kurt Gödel's birth. As usual with such volumes, *Gödel '96* contains some papers directly about the honoree's work, plus several more representing original contributions to research areas more or less related to Gödel. Of course, Gödel is best known for his work in mathematical logic. But his interests ranged widely, and thus so do the topics covered in this volume, as its subtitle indicates. (Although Gödel's bibliography even extends to mathematical economics, that field does not appear here, however.) Highlighting some of the nine invited addresses in this book will convey some of this variety.

Solomon Feferman, noted as an editor of Gödel's collected works as well as a logician in his own right, wrote the lead article, "Gödel's program for new axioms: Why, where, how and what?" This discusses at some length Gödel's repeated statements of the need for additional settheoretic axioms to settle questions such as the Continuum Hypothesis or even arithmetic propositions. Gödel expressed the hope for axioms "based on hitherto unknown principles ... which a more profound understanding of the concepts underlying logic and mathematics would enable us to recognize as implied by these concepts." Feferman then goes on to present his own recent work in that direction, in particular, the application of reflection principles in an attempt to generate, in Gödel's words, "new axioms which are exactly as evident and justified as those with which you started".

G. F. R. Ellis's paper deals with a completely different side of Gödel's research. Just as Abraham Robinson worked on not only model theory and non-standard analysis, but also the aeronautics of delta wings, so

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