

1. Record Nr.	UNINA9910734876203321
Autore	Hämeen-Anttila Maria
Titolo	Kurt Gödel: Results on Foundations // edited by Maria Hämeen-Anttila, Jan von Plato
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-37875-X
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (327 pages)
Collana	Sources and Studies in the History of Mathematics and Physical Sciences, , 2196-8829
Altri autori (Persone)	von PlatoJan
Disciplina	510.9 511.3
Soggetti	Mathematics History Mathematical logic History of Mathematical Sciences Mathematical Logic and Foundations Lògica matemàtica Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface -- Part I. Gödel's Results on Foundations -- Part II. Resultats on Foundations -- Part III. Additional Items and Problem Lists -- Index of names in the Resultate Grundlagen.
Sommario/riassunto	Kurt Gödel (1906-1978) gained world-wide fame by his incompleteness theorem of 1931. Later, he set as his aim to solve what are known as Hilbert's first and second problems, namely Cantor's continuum hypothesis about the cardinality of real numbers, and secondly the consistency of the theory of real numbers and functions. By 1940, he was halfway through the first problem, in what was his last published result in logic and foundations. His intense attempts thereafter at solving these two problems have remained behind the veil of a forgotten German shorthand he used in all of his writing. Results on Foundations is a set of four shorthand notebooks written in 1940-42 that collect results Gödel considered finished. Its main topic is set theory in which Gödel anticipated several decades of development.

Secondly, Gödel completed his 1933 program of establishing the connections between intuitionistic and modal logic, by methods and results that today are at the same time new and 80 years old. The present edition of Gödel's four notebooks encompasses the 368 numbered pages and 126 numbered theorems of the Results on Foundations, together with a list of 74 problems on set theory Gödel prepared in 1946, and a list of an unknown date titled "The grand program of my research in ca. hundred questions."
