1. Record Nr. UNINA9910254273903321 Autore Rassias Michael Th Titolo Goldbach's problem : selected topics / / by Michael Th. Rassias Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 3-319-57914-2 **ISBN** Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XV, 122 p.) 512.7 Disciplina Soggetti Number theory Mathematical analysis Analysis (Mathematics) Numerical analysis **Number Theory Analysis Numerical Analysis** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Foreword -- 1. Introduction -- 2. Step by step proof of Vinogradov's Nota di contenuto theorem -- The ternary Goldbach problem with a prime and two isolated primes -- 4. Basic steps of the proof of Schnirelmann's theorem. - Appendix. - Index. -Bibliography. Important results surrounding the proof of Goldbach's ternary Sommario/riassunto conjecture are presented in this book. Beginning with an historical perspective along with an overview of essential lemmas and theorems, this monograph moves on to a detailed proof of Vinogradov's theorem. The principles of the Hardy-Littlewood circle method are outlined and applied to Goldbach's ternary conjecture. New results due to H. Maier and the author on Vinogradov's theorem are proved under the assumption of the Riemann hypothesis. The final chapter discusses an approach to Goldbach's conjecture through theorems by L. G.

Schnirelmann. This book concludes with an Appendix featuring a sketch of H. Helfgott's proof of Goldbach's ternary conjecture. The Appendix also presents some biographical remarks of mathematicians whose research has played a seminal role on the Goldbach ternary

problem. The author's step-by-step approach makes this book accessible to those that have mastered classical number theory and fundamental notions of mathematical analysis. This book will be particularly useful to graduate students and mathematicians in analytic number theory, approximation theory as well as to researchers working on Goldbach's problem.