Record Nr. UNINA9910300141803321 Autore Fujie Futaba Titolo Covering walks in graphs [[electronic resource] /] / by Futaba Fujie, Ping Zhang New York, NY:,: Springer New York:,: Imprint: Springer,, 2014 Pubbl/distr/stampa **ISBN** 1-4939-0305-5 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (123 p.) Collana SpringerBriefs in Mathematics, , 2191-8198 Disciplina 511.5 Soggetti Graph theory Combinatorics Applied mathematics **Engineering mathematics Graph Theory** Applications of Mathematics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. 1. Eulerian Walks -- 2. Hamiltonian Walks -- 3. Traceable Walks --Nota di contenuto References -- Index... Sommario/riassunto Covering Walks in Graphs is aimed at researchers and graduate students in the graph theory community and provides a comprehensive treatment on measures of two well studied graphical properties, namely Hamiltonicity and traversability in graphs. This text looks into the famous Knigsberg Bridge Problem, the Chinese Postman Problem, the Icosian Game and the Traveling Salesman Problem as well as wellknown mathematicians who were involved in these problems. The concepts of different spanning walks with examples and present classical results on Hamiltonian numbers and upper Hamiltonian numbers of graphs are described; in some cases, the authors provide proofs of these results to illustrate the beauty and complexity of this area of research. Two new concepts of traceable numbers of graphs

and traceable numbers of vertices of a graph which were inspired by and closely related to Hamiltonian numbers are introduced. Results are

traceable concepts and Hamiltonian concepts are examined. Describes

illustrated on these two concepts and the relationship between

several variations of traceable numbers, which provide new frame works for several well-known Hamiltonian concepts and produce interesting new results.