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Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (1,126 pages) : color illustrations, charts
Collana	Springer Handbooks, , 2522-8692
Disciplina	338.926
Soggetti	Technologie Science et technologie Evaluation evaluation method technology Economic policy Management Industrial management Engineering—Vocational guidance Information storage and retrieval Research—Moral and ethical aspects R & D/Technology Policy Innovation/Technology Management Job Careers in Science and Engineering Information Storage and Retrieval Research Ethics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"With 279 figures and 223 tables."
Nota di contenuto	Editors' Introduction -- Analysis of data sources and network analysis -- Advancement of methodology for research assessment -- Science systems and research policy -- New indicators for research assessment -- Advancement of methodology for patent analysis -- Patent system, patents and economics.

This handbook presents the state of the art of quantitative methods and models to understand and assess the science and technology system. Focusing on various aspects of the development and application of indicators derived from data on scholarly publications, patents and electronic communications, the individual chapters, written by leading experts, discuss theoretical and methodological issues, illustrate applications, highlight their policy context and relevance, and point to future research directions. A substantial portion of the book is dedicated to detailed descriptions and analyses of data sources, presenting both traditional and advanced approaches. It addresses the main bibliographic metrics and indexes, such as the journal impact factor and the h-index, as well as altmetric and webometric indicators and science mapping techniques on different levels of aggregation and in the context of their value for the assessment of research performance as well as their impact on research policy and society. It also presents and critically discusses various national research evaluation systems. Complementing the sections reflecting on the science system, the technology section includes multiple chapters that explain different aspects of patent statistics, patent classification and database search methods to retrieve patent-related information. In addition, it examines the relevance of trademarks and standards as additional technological indicators. The Springer Handbook of Science and Technology Indicators is an invaluable resource for practitioners, scientists and policy makers wanting a systematic and thorough analysis of the potential and limitations of the various approaches to assess research and research performance.

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