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Titolo	MATLABÂ® recipes for earth sciences / / Martin H. Trauth
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] Â©2021
ISBN	3-030-38441-1
Edizione	[Fifth edition.]
Descrizione fisica	1 online resource (XII, 517 p. 142 illus., 122 illus. in color.)
Collana	Springer textbooks in earth sciences, geography and environment
Disciplina	550.151
Soggetti	Earth sciences - Mathematics Earth sciences - Data processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Data Analysis in Earth Sciences -- Introduction to MATLAB -- Univariate Statistics -- Bivariate Statistics -- Time-Series Analysis -- Signal Processing -- Spatial Data -- Image Processing -- Multivariate Statistics -- Statistics on Directional Data.
Sommario/riassunto	MATLAB® is used in a wide range of geoscientific applications, e.g. for image processing in remote sensing, for creating and processing digital elevation models, and for analyzing time series. This book introduces readers to MATLAB-based data analysis methods used in the geosciences, including basic statistics for univariate, bivariate and multivariate datasets, time-series analysis, signal processing, the analysis of spatial and directional data, and image analysis. The revised and updated Fifth Edition includes seven new sections, and the majority of the chapters have been rewritten and significantly expanded. New sections include error analysis, the problem of classical linear regression of log-transformed data, aligning stratigraphic sequences, the Normalized Difference Vegetation Index, Aitchison’s log-ratio transformation, graphical representation of spherical data, and statistics of spherical data. The book also includes numerous examples demonstrating how MATLAB can be used on datasets from the earth sciences. The supplementary electronic material (available online through SpringerLink) contains recipes that include all the MATLAB commands featured in the book and the sample data.

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Autore	Smith Marcus
Titolo	Biometric Identification, Law and Ethics / / by Marcus Smith, Seumas Miller
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ISBN	3-030-90256-0
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (105 pages)
Collana	SpringerBriefs in Ethics, , 2211-811X
Classificazione	COM016000LAW099000PHI005000POL000000SOC004000SOC026000
Altri autori (Persone)	MillerSeumas
Disciplina	345.052
Soggetti	Political science Criminology Biometric identification Technology - Moral and ethical aspects Technology - Sociological aspects Computers - Law and legislation Information technology - Law and legislation Political Science Crime Control and Security Biometrics Ethics of Technology Science, Technology and Society Legal Aspects of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Acknowledgment -- 1. The Rise of Biometric Identification, Fingerprints and Applied Ethics -- 2. Facial Recognition and Privacy Rights -- 3. DNA Identification, Joint Rights and Collective Responsibility -- 4. Biometric and Non-Biometric Integration: Dual Use Dilemmas -- 5. The Future of Biometrics and Liberal Democracy -- Index.
Sommario/riassunto	This book is open access. This book undertakes a multifaceted and integrated examination of biometric identification, including the current state of the technology, how it is being used, the key ethical issues, and the implications for law and regulation. The five chapters

examine the main forms of contemporary biometrics–fingerprint recognition, facial recognition and DNA identification– as well the integration of biometric data with other forms of personal data, analyses key ethical concepts in play, including privacy, individual autonomy, collective responsibility, and joint ownership rights, and proposes a raft of principles to guide the regulation of biometrics in liberal democracies. Biometric identification technology is developing rapidly and being implemented more widely, along with other forms of information technology. As products, services and communication moves online, digital identity and security is becoming more important. Biometric identification facilitates this transition. Citizens now use biometrics to access a smartphone or obtain a passport; law enforcement agencies use biometrics in association with CCTV to identify a terrorist in a crowd, or identify a suspect via their fingerprints or DNA; and companies use biometrics to identify their customers and employees. In some cases the use of biometrics is governed by law, in others the technology has developed and been implemented so quickly that, perhaps because it has been viewed as a valuable security enhancement, laws regulating its use have often not been updated to reflect new applications. However, the technology associated with biometrics raises significant ethical problems, including in relation to individual privacy, ownership of biometric data, dual use and, more generally, as is illustrated by the increasing use of biometrics in authoritarian states such as China, the potential for unregulated biometrics to undermine fundamental principles of liberal democracy. Resolving these ethical problems is a vital step towards more effective regulation.