1.	Record Nr.	UNINA9910411936303321
	Autore	Hinders Mark K
	Titolo	Intelligent Feature Selection for Machine Learning Using the Dynamic Wavelet Fingerprint / / by Mark K. Hinders
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
	ISBN	3-030-49395-4
	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (XIV, 346 p. 208 illus., 143 illus. in color.)
	Disciplina	006.31
	Soggetti	Signal processing
		Image processing
		Speech processing systems
		Biomedical engineering
		Materials science
		Automatic control
		Robotics
		Mechatronics
		Computer science
		Signal, Image and Speech Processing
		Biomedical Engineering and Bioengineering
		Materials Science, general
		Control, Robotics, Mechatronics
		Computer Science, general
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Background and history -- Intelligent structural health monitoring with ultrasonic lamb waves -- Automatic detection of flaws in recorded music -- Pocket depth determination with an ultrasonographic periodontal probe -- Spectral intermezzo: Spirit security systems -- Lamb wave tomographic rays in pipes -- Classification of RFID tags with wavelet fingerprinting -- Pattern classification for interpreting sensor data from a walking-speed robot -- Cranks and charlatans and deepfakes.

Sommario/riassunto

This book discusses various applications of machine learning using a new approach, the dynamic wavelet fingerprint technique, to identify features for machine learning and pattern classification in time-domain signals. Whether for medical imaging or structural health monitoring, it develops analysis techniques and measurement technologies for the quantitative characterization of materials, tissues and structures by non-invasive means. Intelligent Feature Selection for Machine Learning using the Dynamic Wavelet Fingerprint begins by providing background information on machine learning and the wavelet fingerprint technique. It then progresses through six technical chapters, applying the methods discussed to particular real-world problems. Theses chapters are presented in such a way that they can be read on their own, depending on the reader's area of interest, or read together to provide a comprehensive overview of the topic. Given its scope, the book will be of interest to practitioners, engineers and researchers seeking to leverage the latest advances in machine learning in order to develop solutions to practical problems in structural health monitoring, medical imaging, autonomous vehicles, wireless technology, and historical conservation.

2.	Record Nr.	UNINA9910960906503321
	Titolo	A review of NASA's atmospheric effects of stratospheric aircraft project / / Panel on Atmospheric Effects of Aviation, Board on Atmospheric Sciences and Climate, Commission on Geosciences, Environment, and Resources, National Research Council
	Pubbl/distr/stampa	Washington, D.C., : National Academy Press, c1999
	ISBN	9780309172905 030917290X 9780309520126 0309520126 9780585197982 0585197989
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (60 p.)
	Disciplina	551.5142
	Soggetti	Aircraft exhaust emissions - Environmental aspects - Research - Evaluation Supersonic planes - Environmental aspects
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references (p. 42-48).
	Nota di contenuto	Front Matter; Preface; Contents; Executive Summary; 1 Introduction; 2 Scientific Discussion; 3 Recommendations; 4 Future Directions; References; Acronyms
	Sommario/riassunto	The NRC Panel on the Atmospheric Effects of Aviation (PAEAN) was established to provide guidance to NASA's Atmospheric Effects of Aviation Program (AEAP) by evaluating the appropriateness of the program's research plan, appraising the project-sponsored results relative to the current state of scientific knowledge, identifying key scientific uncertainties, and suggesting research activities likely to reduce those uncertainties. Over the last few years, the panel has written periodic reviews of both the subsonic aviation (Subsonic Assessment-SASS) and the supersonic aviation (Atmospheric Effects of Stratospheric Aircraft-AESA) components of AEAP, including: An Interim Review of the Subsonic Assessment Project (1997); An Interim

Assessment of AEAP's Emissions Characterization and Near-Field Interactions Elements (1997); An Interim Review of the AESA Project: Science and Progress (1998); Atmospheric Effects of Aviation: A Review of NASA's Subsonic Assessment Project (1998). This report constitutes the final review of AESA and will be the last report written by this panel. The primary audience for these reports is the program managers and scientists affiliated with AEAP, although in some cases the topics discussed are of interest to a wider audience.