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Titolo	Computer processing of remotely-sensed images : an introduction // Paul M. Mather and Magaly Koch
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Edizione	[4th ed.]
Descrizione fisica	xx, 434 p. : ill
Altri autori (Persone)	KochMagaly
Disciplina	621.36/78
Soggetti	Image processing - Digital techniques Remote sensing - Data processing Remote-sensing images
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Remote sensing : basic principles -- Remote sensing platforms and sensors -- Hardware and software aspects of digital image processing -- Preprocessing of remotely-sensed data -- Image enhancement techniques -- Image transforms -- Filtering techniques -- Classification -- Advanced topics -- Environmental geographical information systems : a remote sensing perspective -- Appendix A: Accessing MIPS -- Appendix B: Getting started with MIPS -- Appendix C: Description of sample image datasets -- Appendix D: Acronyms and abbreviations.
Sommario/riassunto	This fourth and full colour edition updates and expands a widely-used textbook aimed at advanced undergraduate and postgraduate students taking courses in remote sensing and GIS in Geography, Geology and

Earth/Environmental Science departments. Existing material has been brought up to date and new material has been added. In particular, a new chapter, exploring the two-way links between remote sensing and environmental GIS, has been added. New and updated material includes:

- \* A website at [www.wiley.com/go/mather4](http://www.wiley.com/go/mather4) that provides access to an updated and expanded version of the MIPS image processing software for Microsoft Windows, PowerPoint slideshows of the figures from each chapter, and case studies, including full data sets,
- \* Includes new chapter on Remote Sensing and Environmental GIS that provides insights into the ways in which remotely-sensed data can be used synergistically with other spatial data sets, including hydrogeological and archaeological applications,
- \* New section on image processing from a computer science perspective presented in a non-technical way, including some remarks on statistics,
- \* New material on image transforms, including the analysis of temporal change and data fusion techniques,
- \* New material on image classification including decision trees, support vector machines and independent components analysis, and
- \* Now in full colour throughout.

This book provides the material required for a single semester course in Environmental Remote Sensing plus additional, more advanced, reading for students specialising in some aspect of the subject. It is written largely in non-technical language yet it provides insights into more advanced topics that some may consider too difficult for a non-mathematician to understand. The case studies available from the website are fully-documented research projects complete with original data sets. For readers who do not have access to commercial image processing software, MIPS provides a licence-free, intuitive and comprehensive alternative.

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