Record Nr. UNINA9910143171203321 Uncertainty in remote sensing and GIS [[electronic resource] /] / edited **Titolo** by Giles M. Foody and Peter M. Atkinson Pubbl/distr/stampa Chichester;; Hoboken, NJ,: Wiley, c2002 **ISBN** 1-280-27108-6 9786610271085 0-470-29911-8 0-470-03526-9 0-470-85924-5 Descrizione fisica 1 online resource (327 p.) Altri autori (Persone) FoodyGiles M AtkinsonPeter M Disciplina 550.28 910/.285 Soggetti Remote sensing Geographic information systems Uncertainty (Information theory) 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 and index. Uncertainty in Remote Sensing and GIS; Contents; List of Contributors; Nota di contenuto Foreword; Preface; 1 Uncertainty in Remote Sensing and GIS: Fundamentals; 2 Uncertainty in Remote Sensing; 3 Toward a Comprehensive View of Uncertainty in Remote Sensing Analysis; 4 On the Ambiguity Induced by a Remote Sensor's PSF; 5 Pixel Unmixing at the Sub-pixel Scale Based on Land Cover Class Probabilities: Application to Urban Areas; 6 Super-resolution Land Cover Mapping from Remotely Sensed Imagery using a Hopfield Neural Network 7 Uncertainty in Land Cover Mapping from Remotely Sensed Data using Textural Algorithm and Artificial Neural Networks8 Remote Monitoring of the Impact of ENSO-related Drought on Sabah Rainforest using NOAA AVHRR Middle Infrared Reflectance: Exploring Emissivity Uncertainty; 9 Land Cover Map 2000 and Meta-data at the Land Parcel Level; 10 Analysing Uncertainty Propagation in GIS: Why is it not that

Simple?; 11 Managing Uncertainty in a Geospatial Model of Biodiversity

12 The Effects of Uncertainty in Deposition Data on Predicting Exceedances of Acidity Critical Loads for Sensitive UK Ecosystems13 Vertical and Horizontal Spatial Variation of Geostatistical Prediction; 14 Geostatistical Prediction and Simulation of the Lateral and Vertical Extent of Soil Horizons; 15 Increasing the Accuracy of Predictions of Monthly Precipitation in Great Britain using Kriging with an External Drift; 16 Conditional Simulation Applied to Uncertainty Assessment in DTMs; 17 Current Status of Uncertainty Issues in Remote Sensing and GIS; Index

Sommario/riassunto

Remote sensing and geographical information science (GIS) have advanced considerably in recent years. However, the potential of remote sensing and GIS within the environmental sciences is limited by uncertainty, especially in connection with the data sets and methods used. In many studies, the issue of uncertainty has been incompletely addressed. The situation has arisen in part from a lack of appreciation of uncertainty and the problems it can cause as well as of the techniques that may be used to accommodate it. This book provides general overviews on uncertainty in remote sensing and GIS