1. Record Nr. UNINA9910706184403321

Autore	Miyoshi Kazuhisa
Titolo	Surface diagnostics in tribology technology and advanced coatings development / / Kazuhisa Miyoshi
Pubbl/distr/stampa	Cleveland, Ohio : , : National Aeronautics and Space Administration, Lewis Research Center, , February 1999
Descrizione fisica	1 online resource (8 pages) : illustrations
Collana	NASA/TM ; ; 1999-208527
Soggetti	Surface properties Tribology Electron diffraction Atomic force microscopy Transmission electron microscopy X ray diffraction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"February 1999." "Prepared for IMECO-XV sponsored by the Society of Instrumentation and Control Engineers, Osaka, Japan, June 13-15, 1999." "Performing organization: National Aeronautics and Space Administration, Lewis Research Center"--Report documentation page.
Nota di bibliografia	Includes bibliographical references (page 8).

2. Record Nr. UNINA9910254082903321

Autore	Förstner Wolfgang
Titolo	Photogrammetric Computer Vision : Statistics, Geometry, Orientation and Reconstruction / / by Wolfgang Förstner, Bernhard P. Wrobel
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-11550-2
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XVII, 816 p. 281 illus., 59 illus. in color.)
Collana	Geometry and Computing, , 1866-6795 ; ; 11
Disciplina	526.982
Soggetti	Optical data processing Remote sensing Geometry Computer Imaging, Vision, Pattern Recognition and Graphics Remote Sensing/Photogrammetry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Tasks for Photogrammetric Computer Vision -- Modelling in Automated Photogrammetric Computer Vision -- Probability Theory and Random Variables -- Testing -- Estimation -- Homogeneous Representations of Points, Lines and Planes -- Transformations -- Geometric Operations -- Rotations -- Oriented Projective Geometry -- Reasoning with Uncertain Geometric Entities -- Orientation and Reconstruction -- Bundle Adjustment -- Surface Reconstruction from Point Clouds -- References -- Index.
Sommario/riassunto	This textbook offers a statistical view on the geometry of multiple view analysis, required for camera calibration and orientation and for geometric scene reconstruction based on geometric image features. The authors have backgrounds in geodesy and also long experience with development and research in computer vision, and this is the first book to present a joint approach from the converging fields of photogrammetry and computer vision. Part I of the book provides an introduction to estimation theory, covering aspects such as Bayesian estimation, variance components, and sequential estimation, with a focus on the statistically sound diagnostics of estimation results

essential in vision metrology. Part II provides tools for 2D and 3D geometric reasoning using projective geometry. This includes oriented projective geometry and tools for statistically optimal estimation and test of geometric entities and transformations and their rela-tions, tools that are useful also in the context of uncertain reasoning in point clouds. Part III is de-voted to modelling the geometry of single and multiple cameras, addressing calibration and orienta-tion, including statistical evaluation and reconstruction of corresponding scene features and surfaces based on geometric image features. The authors provide algorithms for various geometric computa-tion problems in vision metrology, together with mathematical justifications and statistical analysis, thus enabling thorough evaluations. The chapters are self-contained with numerous figures and exer-cises, and they are supported by an appendix that explains the basic mathematical notation and a de-tailed index. The book can serve as the basis for undergraduate and graduate courses in photogrammetry, com-puter vision, and computer graphics. It is also appropriate for researchers, engineers, and software developers in the photogrammetry and GIS industries, particularly those engaged with statistically based geometric computer vision methods.