1. Record Nr. UNINA9910143649303321

Titolo	Shape, contour, and grouping in computer vision / / David A. Forsyth [and three others] (editors)
Pubbl/distr/stampa	Berlin ; ; Heidelberg : , : Springer, , [1999] Â©1999
ISBN	3-540-46805-6
Edizione	[1st ed. 1999.]
Descrizione fisica	1 online resource (VIII, 350 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1681
Disciplina	006.37
Soggetti	Computer vision
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	An Empirical-Statistical Agenda for Recognition -- A Formal-Physical Agenda for Recognition -- Shape -- Shape Models and Object Recognition -- Order Structure, Correspondence, and Shape Based Categories -- Quasi-Invariant Parameterisations and Their Applications in Computer Vision -- Shading -- Representations for Recognition Under Variable Illumination -- Shadows, Shading, and Projective Ambiguity -- Grouping -- Grouping in the Normalized Cut Framework -- Geometric Grouping of Repeated Elements within Images -- Constrained Symmetry for Change Detection -- Grouping Based on Coupled Diffusion Maps -- Representation and Recognition -- Integrating Geometric and Photometric Information for Image Retrieval -- Towards the Integration of Geometric and Appearance-Based Object Recognition -- Recognizing Objects Using Color-Annotated Adjacency Graphs -- A Cooperating Strategy for Objects Recognition -- Statistics, Learning and Recognition -- Model Selection for Two View Geometry:A Review -- Finding Objects by Grouping Primitives -- Object Recognition with Gradient-Based Learning.
Sommario/riassunto	Computer vision has been successful in several important applications recently. Vision techniques can now be used to build very good models of buildings from pictures quickly and easily, to overlay operation planning data on a neuros- geon’s view of a patient, and to recognise some of the gestures a user makes to a computer. Object recognition

remains a very di cult problem, however. The key questions to understand in recognition seem to be: (1) how objects should be represented and (2) how to manage the line of reasoning that stretches from image data to object identity. An important part of the process of recognition { perhaps, almost all of it { involves assembling bits of image information into helpful groups. There is a wide variety of possible criteria by which these groups could be established { a set of edge points that has a symmetry could be one useful group; others might be a collection of pixels shaded in a particular way, or a set of pixels with coherent colour or texture. Discussing this process of grouping requires a detailed understanding of the relationship between what is seen in the image and what is actually out there in the world.