1. **Record Nr.**   UNISA996466151303316

   Titolo   Computer Vision - ECCV '94 [[electronic resource]] : Third European Conference on Computer Vision, Stockholm, Sweden, May 2 - 6, 1994. Proceedings, Volume 1 / / edited by Jan-Olof Eklundh

   Pubbl/distr/stampa Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1994

   ISBN   3-540-48398-5

   Edizione   [1st ed. 1994.]

   Descrizione fisica 1 online resource (VIII, 620 p.)

   Collana   Lecture Notes in Computer Science, , 0302-9743 ; ; 800

   Disciplina   006.6
                           006.37

   Soggetti   Optical data processing
                           Pattern recognition
                           Computer graphics
                           Artificial intelligence
                           Image Processing and Computer Vision
                           Pattern Recognition
                           Computer Graphics
                           Artificial Intelligence

   Lingua di pubblicazione Inglese

   Formato   Materiale a stampa

   Livello bibliografico Monografia

   Note generali   Bibliographic Level Mode of Issuance: Monograph

   Nota di contenuto   Evolutionary fronts for topology-independent shape modeling and recovery -- Epipolar fields on surfaces -- Stability and likelihood of views of three dimensional objects -- Topological reconstruction of a smooth manifold-solid from its occluding contour -- Optical flow estimation: Advances and comparisons -- Multiple constraints for optical flow -- Motion field of curves: Applications -- Sufficient image structure for 3-D motion and shape estimation -- A comparison between the standard Hough Transform and the Mahalanobis distance Hough Transform -- Junction classification by multiple orientation detection -- Following corners on curves and surfaces in the scale space -- Scale-space properties of quadratic edge detectors -- A scalar function formulation for optical flow -- First order optic flow from log-polar sampled images -- Recursive non-linear estimation of

discontinuous flow fields -- The use of optical flow for the autonomous navigation -- An image motion estimation technique based on a combined statistical test and spatiotemporal generalised likelihood ratio approach -- Independent motion segmentation and collision prediction for road vehicles -- An MRF based motion detection algorithm implemented on analog resistive network -- Occlusion ambiguities in motion -- A robust tracking of 3D motion -- Robust multiple car tracking with occlusion reasoning -- Shape from motion algorithms: A comparative analysis of scaled orthography and perspective -- Robust egomotion estimation from affine motion parallax -- Integrated 3D analysis of flight image sequences -- Recursive affine structure and motion from image sequences -- Shape models from image sequences -- Vibration modes for nonrigid motion analysis in 3D images -- Applying VC-dimension analysis to object recognition -- Extraction of groups for recognition -- Model based pose estimation of articulated and constrained objects -- Seeing behind occlusions -- Face recognition: The problem of compensating for changes in illumination direction -- Learning flexible models from image sequences -- A direct recovery of superquadric models in range images using recover-and-select paradigm -- Segmentation and recovery of SHGCs from a real intensity image -- Recognizing hand gestures -- Pose refinement of active models using forces in 3D -- Recovering surface curvature and orientation from texture distortion: A least squares algorithm and sensitivity analysis -- Direct estimation of local surface shape in a fixating binocular vision system -- Deriving orientation cues from stereo images -- Shape-adapted smoothing in estimation of 3-D depth cues from affine distortions of local 2-D brightness structure -- Utilizing symmetry in the reconstruction of three-dimensional shape from noisy images -- Consistency and correction of line-drawings, obtained by projections of piecewise planar objects -- On the enumerative geometry of aspect graphs -- Geometry-driven curve evolution -- Quantitative measurement of manufactured diamond shape -- Hierarchical shape representation using locally adaptive finite elements -- Camera calibration from spheres images -- Self calibration of a stereo head mounted onto a robot arm -- Analytical methods for uncalibrated stereo and motion reconstruction -- Self-calibration from multiple views with a rotating camera -- Trilinearity in visual recognition by alignment -- What can two images tell us about a third one? -- A robust method for road sign detection and recognition -- Pose determination and recognition of vehicles in traffic scenes -- Performance comparison of ten variations on the interpretation-tree matching algorithm -- Recognition of human facial expressions without feature extraction -- Pulsed neural networks and perceptive grouping -- Projective invariants for planar contour recognition -- Divided we fall: Resolving occlusions using causal reasoning -- Camera calibration of a head-eye system for active vision -- Linear pushbroom cameras -- Robust recovery of the epipolar geometry for an uncalibrated stereo rig -- A stability analysis of the Fundamental matrix -- Canonic representations for the geometries of multiple projective views.

Sommario/riassunto	The European Conference on Computer Vision (ECCV) has established itself as a major event in this exciting and very active field of research. This two-volume proceedings collects the 115 papers accepted for presentation at the 3rd ECCV, held in Stockholm in May 1994. The papers were selected from over 300 submissions and together give a well balanced reflection of the state of the art in computer vision. The papers in Volume I are grouped under the following headings: Geometry and shape, Optical flow and motion fields, Image features,

Motion and flow, Motion segmentation and tracking, Ego-motion and 3D recovery, Recognition, Shape modelling, Shape estimation, Calibration and multiple views, and Stereo and calibration.