Fifth International Conference on Computer Vision
Massachusetts Institute of Technology
Cambridge, MA
June 20–23, 1995

Welcome to ICCV 95

On behalf of the program committee and the other organizing committees, it is a pleasure to welcome you to the MIT campus in Cambridge, Massachusetts for the Fifth International Conference on Computer Vision.

As you can see by the accompanying schedule, a busy four days is planned, including both the scientific progrma and social events. The former consists of 56 oral presentations in plenary sessions, and 105 poster, split among three different poster sessions. While the scientific portion of the conference will be very full, we hope that you will also find time to enjoy discussions and interactions with old and new colleagues and acquaintances during the conference, as well as getting a taste of New England culture and hospitality.

Many thanks are due to all the members of the program committee for reviewing an unexpectedly large number of manuscripts, and for providing valuable recommendations on each paper; to all the authors of the submitted manuscripts for their interest in the conference and for contributing towards what we hope is an exciting and fruitful exchange of ideas. Finally, thanks to Gayle Fitzgerald in the MIT Conference Office for ensuring a smoothly run conference.

Eric Grimson, General Chair

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TUESDAY, JUNE 20

SESSION 1 – Opening, IUE, Recognition – 8:00 – 9:40

Co-chairs: Andrew Blake (Oxford), Anil Jain (Michigan State)

- Opening welcome, E. Grimson (MIT)
- Towards a unified IU Environment: Coordination of existing IU tools with the IUE, Charles Kohl (Amerinex), Jeffrey Hunter (Amerinex), Cynthia Loiselle (Amerinex).
- Recognition using region correspondences, Ronen Basri (Weizmann), David Jacobs (NEC).
- Alignment by maximization of mutual information, Paul Viola (MIT), William Wells III (MIT, Harvard Med).
- Object indexing using an iconic sparse distributed memory, Rajesh Rao (Rochester), Dana Ballard (Rochester).

SESSION 2 – Calibration, Navigation – 10:10 – 11:50

Co-chairs: Gerard Medioni (USC), Allen Hanson (Massachusetts)

- Robot Aerobics: Four easy steps to a more flexible calibration, Daniel Stevenson (Iowa), Margaret Fleck (Iowa).
- Head-eye calibration, Mengxiang Li (KTH), Demetrios Betsis (KTH).
- Weakly-calibrated stereo perception for rover navigation, Luc Robert (INRIA), Michel Buffa (Lab. I3S), Martial Hebert (CMU).
- An integrated stereo-based approach to automatic vehicle guidance, Q.-T. Luong (Berkeley), J. Weber (Berkeley), D. Koller (ECRC), J. Malik (Berkeley).
- Active visual navigation using non-metric structure, Paul Beardsley (Oxford), Ian Reid (Oxford), Andrew Zisserman (Oxford), David Murray (Oxford).

SESSION 3 – Shape Recovery – 1:30 – 2:30

Co-chairs: Kokichi Sugihara (Tokyo), Jean Ponce (Illinois)

- Shape from shading with interreflections under proximal light source: 3D shape reconstruction of unfolded book surface from a scanner image, Toshikazu Wada (Okayama), Hiroyuki Ukida (Okayama), Takashi Matsuyama (Okayama).
- Shape and model from specular motion, Jiang Yu Zheng (Kyushu), Yoshihiro Fukagawa (Kyushu), Norihiro Abe (Kyushu)
- Reflectance function estimation and shape recovery from image sequence of a rotating object, Jiping Lu (UBC), Jim Little (UBC)

POSTER SESSION 1 – Stereo, Texture, Low Level Vision, Color, Calibration, Motion – 2:30 – 4:30

- A multibaseline stereo system with active illumination and real-time image acquisition, Sing Bing Kang (DEC), Jon Webb (CMU), Lawrence Zitnick (CMU), Takeo Kanade (CMU).
- Electronically directed "focal" stereo, Peter Burt (Sarnoff), Lambert Wixson (Sarnoff), Garbis Salgian (Rochester).
- Segmented shape description from 3-view stereo, Parag Havaldar (USC), Gerard Medioni (USC).
- 3d surface reconstruction from stereoscopic image sequences, Reinhard Koch (Hannover).
- Limitations of Markov Random Fields as models of textured images of real surfaces, Athanasios Speis (Irvine), Glenn Healey (Irvine).
- Texture segmentation and shape in the same image, John Krumm (Sandia), Steven Shafer (CMU).
- The illumination-invariant recognition of color texture, Glenn Healey (Irvine), Lizhi Wang (Irvine).
- Direct estimation of affine deformations using visual front-end operators with automatic scale selection, Tony Lindeberg (KTH).
- Indexing visual representations through the complexity map, Benoit Dubuc (McGill), Steven Zucker (McGill).
- Seeing behind the scene: Analysis of photometric properties of occluding edges by the reversed projection blurring model, Naoki Asada (Okayama), Hisanaga Fujiwara (Okayama), Takashi Matsuyama (Okayama).
- Image segmentation by reaction-diffusion bubbles, Huseyin Tek (Brown), Benjamin Kimia (Brown).
- Scale-space from nonlinear filters, Andrew Bangham (East Anglia), Paul Ling (East Anglia), Richard Harvey
- Unsupervised parallel image classificiation using a hierarchical markovian model, Zoltan Kato (INRIA), Josiane Zerubia (INRIA), Marc Berthod (INRIA).
- Polymorphic grouping for image segmentation, Claudia Fuchs (Bonn), Wolfgang Forstner (Bonn).
- Class-based grouping in perspective images, Andrew Zisserman (Oxford), Joe Mundy (GE), David Forsyth (Berkeley), Jane Liu (GE), Nic Pillow (Oxford), Charlie Rothwell (INRIA), Sven Utcke (Hamburg-Harburg).

- Steerable wedge filters, Eero Simoncelli (Penn), Hany Farid (Penn).
- Saliency maps and attention selection in scale and spatial coordinates: an information theoretic approach, Martin Jagersand (Rochester).
- Combining color and geometry for the active, visual recognition of shadows, Gareth Funka-Lea (Siemens), Ruzena Bajcsy (Penn).
- Bayesian decision theory, the maximum local mass estimate, and color constancy, William Freeman (Mitsubishi), David Brainard (Santa Barbara).
- Color constancy in diagonal chromaticity space, Graham Finlayson (Simon Fraser).
- The nonparametric approach for camera calibration, MaoLin Qiu (Chinese Academy of Sciences), Song De Ma (Chinese Academy of Sciences).
- Accurate internal camera calibration using rotation, with analysis of sources of error, Gideon Stein (MIT).
- ASSET-2: Real-time motion segmentation and shape tracking, Stephen Smith (Defence Research AGency).
- Global rigidity constraints in image displacement fields, Cornelia Fermuller (Maryland), Yiannis Aloimonos (Maryland).
- Rigid body segmentation and shape description from dense optical flow under weak perspective, Joseph Weber (Berkeley), Jitendra Malik (Berkeley).
- Estimating motion and structure from correspondences of line segments between two perspective images, Zhengyou Zhang (INRIA).
- Computation of coherent optical flow by using multiple constraints, Massimo Tistarelli (Genoa).
- Motion from the frontier of curved surfaces, R. Cipolla (Cambridge), K.E. Astrom (Lund), P.J. Giblin (Liverpool).
- Real-time obstacle avoidance using central flow divergence and peripheral flow, David Coombs (NIST), Martin Herman (NIST), Tsai Hong (NIST), Marilyn Nashman (NIST).
- Recovering 3d motion and structure of multiple objects using adaptive hough transform, Tina Yu Tian (Central Florida), Mubarak Shah (Central Florida).
- Structure and motion estimation from dynamic silhouettes under perspective projection, Tanuja Joshi (Illinois), Narendra Ahuja (Illinois), Jean Ponce (Illinois).
- Determining facial expressions in real-time, Yael Moses (Weizmann), David Reynard (Oxford), Andrew Blake (Oxford).

- Region tracking through image sequences, Benedicte Bascle (Oxford), Rachid Deriche (INRIA).
- Closing the loop on multiple motions, Charles Wiles (Oxford), Michael Brady (Oxford).
- A unifying framework for structure and motion recovery from image sequences, Philip McLauchlan (Oxford), David Murray (Oxford).
- Dynamic rigid motion estimation from weak perspective, Stefano Soatto (Caltech), Pietro Perona (Caltech, Padova).

SESSION 4 – Shape Recovery – 4:30 – 5:30
Co-chairs: Saburo Tsuji (Wakayama), Larry Davis (Maryland)

- Complete scene structure from four point correspondences, Steven Seitz (Wisconsin), Charles Dyer (Wisconsin).
- Matching constraints and the joint image Bill Triggs (LIFIA, INRIA).
- Surface reconstruction: GNCs and MFA, Mads Nielsen (DIKU).

Reception – McCormick Hall Courtyard, 6:00–8:00
PAMI Technical Committee Meeting – Kresge Little Theater, 8:00 – ??

WEDNESDAY, JUNE 21
SESSION 5 – Face and Gesture Recognition – 8:00 – 9:40
Co-chairs: Tomaso Poggio (MIT), Ramesh Jain (UCSD)

- Automatic recognition of human facial expressions, Katsuhiro Matsuno (Kansai Electri), Chil-Woo Lee (Lab of Image Information Science), Satoshi Kimura (Lab of Image Information Science), Saburo Tsuji (Wakayama).
- Facial expression recognition using a dynamic model and motion energy, Irfan Essa (MIT), Alex Pentland (MIT).
- A unified approach for coding and interpreting face images, A. Lanitis (Manchester), C.J. Taylor (Manchester), T.F. Cootes (Manchester).
- Tracking and recognizing rigid and non-rigid facial motions using local parametric models of image motion Michael Black (Xerox), Yaser Yacoob (Maryland)
- A state-based technique for the summarization and recognition of gesture, Aaron Bobick (MIT), Andrew Wilson (MIT).

SESSION 6 – Curve Matching, Shape Completion – 10:10 – 11:50
Co-chairs: Roger Mohr (LIFIA), Nicholas Ayache (INRIA)

- Matching of 3d curves using semi-differential invariants, Tomas Pajdla (Leuven), Luc Van Gool (Leuven).
- Shape extraction for curves using geometry-driven diffusion and functional optimization, Eric Pauwels (Leuven), Peter Fiddelaers (Leuven), Luc Van Gool (Leuven).
- Optimal subpixel matching of contour chains and segments, Bruno Serra (INRIA, AEROSPATIALE), Marc Berthod (INRIA).
- Stochastic completion fields: A neural model of illusory contour shape and salience, Lance Williams (NEC), David Jacobs (NEC).
- Region competition: Unifying snakes, region growing, energy/Bayes/MDL for multi-band image segmentation, S. Zhu (Harvard), Tai Sing Lee (Harvard), Alan Yuille (Harvard).

SESSION 7 – Pose and Correspondence – 1:30 – 2:30
Co-chairs: Olivier Faugeras (INRIA), Daniel Huttenlocher (Cornell)

- Object Pose: Links between paraperspective and perspective, Radu Horaud (LIFIA, INRIA), Stephane Christy (LIFIA, INRIA), Fadi Dornaika (LIFIA, INRIA), Bart Lamiroy (LIFIA, INRIA).
- A geometric criterion for shape-based non-rigid correspondence, Hemant Tagare (Yale), Don O'Shea (Mt. Holyoke), Anand Rangarajan (Yale).
- Region correspondence by inexact attributed planar graph matching, Caihua Wang (Shizuoka), Keiichi Abe (Shizuoka).

POSTER SESSION 2 – Recognition, Applications – 2:30 – 4:30

- Relational matching with dynamic graph structures, Richard Wilson (York), Edwin Hancock (York).
- Locating objects using the Hausdorff distance, William Rucklidge (Xerox).
- FORMS: a Flexible Object Recognition and Modelling System, S. Zhu (Harvard), Alan Yuille (Harvard).
- Elimination: An approach to the study of 3d-from-2D, Michael Werman (Hebrew), Amnon Shashua (Hebrew).

- Recognizing 3D objects using photometric invariant, Kenji Nagao (Matsushita, MIT).
- Probabilistic 3d object recognition, Ilan Shimshoni (Illinois), Jean Ponce (llinois).
- Nonlinear manifold learning for visual speech recognition, Christoph Bregler (Berkeley), Stephen Omohundro (NEC).
- Face recognition from one example view David Beymer (MIT), Tomaso Poggio (MIT).
- Invariant-based recognition of complex curved 3d objects from image contours, B. Vijaykumar (Yale), David Kriegman (Yale), Jean Ponce (Illinois).
- Computing visual correspondence: Incorporating the probability of a false match, Daniel Huttenlocher (Cornell), Eric Jaquith (Xerox)
- Fast object recognition in noisy images using simulated annealing, Margrit Betke (MIT), Nicholas Markis (Naval Research Laboratory).
- Model-based matching of line drawings by linear combinations of prototypes, Michael Jones (MIT), Tomaso Poggio (MIT).
- Gabor wavelets for 3-d object recognition, Xing Wu (Riverside), Bir Bhanu (Riverside).
- Learning geometric hashing functions for model based object recognition, George Bebis (Central Florida), Michael Georgiopoulos (Central Florida), Niels da Vitoria Lobo (Central Florida).
- 3d-2d projective registration of free-form curves and surfaces, Jacques Feldmar (INRIA), Nicholas Ayache (INRIA), Fabienne Betting (INRIA).
- Validation of 3d registration methods based on points and frames, Xavier Pennec (INRIA), Jean-Philippe Thirion (INRIA).
- Combining color and geometric information for the illumination invariant recognition of 3d objects, David Slater (Irvine), Glenn Healey (Irvine).
- 3d pose estimation by fitting image gradients directly to polyhedral models, Henner Kollnig (Karlsruhe), Hans-Hellmut Nagel (Karlsruhe).
- Real-time X-ray inspection of 3D defects in circuit board patterns, Hideaki Doi (Hitachi), Yoko Suzuki (Hitachi), Yasuhiko Hara (Hitachi), Tadashi Iida (Hitachi), Yasuhiro Fujishita (Hitachi), Koichi Karasaki (Hitachi).
- Model-based 2D&3D dominant motion estimation for mosaicing and video representation, Harpreet Sawhney (IBM), Serge Ayer (Swiss Federal Institute of Technology), Monika Gorkani (IBM).
- Face detection by fuzzy pattern matching, Qian Chen (Osaka), Haiyuan Wu (Osaka), Masahiko Yachida (Osaka).

- Perceptual organization in an interactive sketch editing application, Eric Saund (Xerox), Thomas Moran (Xerox)
- Mosaic based representations of video sequences and their applications, Michal Irani (Sarnoff), P. Anandan (Sarnoff), Steve Hsu (Sarnoff).
- Model-based tracking of self-occluding articulated objects, James Rehg (CMU), Takeo Kanade (CMU).
- 3D human body model acquisition from multiple views, Ioannis Kakadiaris (Penn), Dimitri Metaxas (Penn)
- Recognition of human body motion using phase space constraints, Lee Campbell (MIT), Aaron Bobick (MIT).
- Learning-based hand sign recognition using SHOSLIF-M Yuntao Cui (Michigan State), Daniel Swets (Michigan State), John Weng (Michigan State).
- Finding faces in cluttered scenes using labelled random graph matching, Thomas Leung (Caltech, Berkeley), Mike Burl (Caltech), Pietro Perona (Caltech, Padova).
- Visual navigation using a single camera, Jean-Yves Bouguet (Caltech), Pietro Perona (Caltech, Padova).
- A recursive filter for phase velocity assisted shape-based tracking of cardiac non-rigid motion, John McEachen III (Yale), Francois Meyer (Yale), Todd Constable (Yale), Arye Nehorai (Yale), James Duncan (Yale).
- Structure and semi-fluid motion analysis of stereoscopic satellite images for cloud tracking, K. Palaniappan (NASA), Chandra Kambhamettu (NASA), Frederick Hasler (NASA), Dmitry Goldgof (South Florida).
- Vision based hand modeling and tracking for virtual teleconferencing and telelcollaboration, James Kuch (TouchVision Systems), Thomas Huang (Illinois).
- Closed-world tracking, Stephen Intille (MIT), Aaron Bobick (MIT)
- Towards an active visual observer, Tomas Uhlin (KTH), Peter Nordlund (KTH), Atsuto Maki (KTH), Jan-Olof Eklundh (KTH).
- A model-based integrated approach to track myocaridal deformation using displacement and velocity constraints, Pengcheng Shi (Yale), Glynn Robinson (Yale), Todd Constable (Yale), Albert Sinusas (Yale), James Duncan (Yale).

SESSION 8 – Deformable models – 4:30 – 5:30

Co-chairs: Demetri Terzopoulos (Toronto), James Duncan (Yale)

- Geodesic active contours, Vicent Caselles (Illes Balears), Ron Kimmel (Technion), Guillermo Sapiro (HP).
- Volumetric deformable models with parameter functions: A new approach to the 3d motion analysis of the LV from MRI-SPAMM, Jinah Park (Penn), Dimitri Metaxas (Penn), Leon Axel (Penn).
- Optical flow and deformable objects, Andrea Giachetti (Genova), Vincent Torre (Genova).

Banquet – New England Aquarium, 7:00–11:00

Buses will leave from the Marriott Hotel and from MIT Main Campus at 6:30. Buses will return from the Aquarium around 11:00.

THURSDAY, JUNE 22

SESSION 9 – Color, Texture, Specularities – 8:00 – 9:40

Co-chairs: Steven Shafer (CMU), Shree Nayar (Columbia)

- Results using random field models for the segmentation of color images of natural scenes, Dileep Panjwani (Irvine), Glenn Healey (Irvine).
- Color constancy under varying illumination, G. Finlayson (Simon Fraser), B. Funt (Simon Fraser), K. Barnard (Simon Fraser).
- On representation and matching of multi-coloured objects, J. Matas (Surrey), R. Marik (Surrey), J. Kittler (Surrey).
- Surface orientation and curvature from differential texture distortion, Jonas Garding (KTH).
- A theory of specular surface geometry, Michael Oren (Columbia), Shree Nayar (Columbia).

SESSION 10 – Motion – 10:10 – 11:50

Co-chairs: Hans-Hellmut Nagel (Fraunhofer Institute), Ellen Hildreth (Wellesley)

- Motion analysis with a camera with unknown, and possibly varying intrinsic parameters, Thierry Vieville (INRIA), Olivier Faugeras (INRIA).
- Motion estimation with quadtree splines, Richard Szeliski (DEC), Heung-Yeung Shum (CMU)
- Monocular tracking of the human arm in 3D, Luis Goncalves (Caltech), Enrico Di Bernardo (Caltech, Padova), Enrico Ursella (Padova), Pietro Perona (Caltech, Padova).
- Hypergeometric filters for optical flow and affine matching, Yalin Xiong (CMU), Steven Shafer (CMU).

- Layered representation of motion video using robust maximum-likelihood estimation of mixture models and MDL encoding, Serge Ayer (Swiss Federal Institute of Technology), Harpreet Sawhney (IBM).

SESSION 11 – Learning, Modeling – 1:30 – 2:30
Co-chairs: Takashi Matsuyama (Kyoto), Joseph Mundy (GE)

- Probabilistic visual learning for object detection, Baback Moghaddam (MIT), Alex Pentland (MIT).
- Automatic generation of GRBF networks for visual learning, Sayan Mukherjee (Columbia), Shree Nayar (Columbia).
- Animat Vision: Active vision in artificial animals Demetri Terzopoulos (Toronto), Tamer Rabie (Toronto)

POSTER SESSION 3 – Deformable Models, Surfaces, Learning, Geometry, Modeling, Analysis, Sensors, Active Vision – 2:30 – 4:30

- Gradient flows and geometric active contour models, Satyanad Kichenassamy (Minnesota), Arun Kumar (Minnesota), Peter Olver (Minnesota), Allen Tannenbaum (Minnesota), Anthony Yezzi (Minnesota)
- A snake for model-based segmentation, Petia Radeva (Barcelona), Joan Serrat (Barcelona), Enric Marti (Barcelona).
- Algorithms for implicit deformable models, Ross Whitaker (ECRC).
- Deformable Velcro(TM) surfaces, W. Neuenschwander (ETH), P. Fua (SRI), G. Szekely (ETH), O. Kubler (ETH).
- Adaptive shape evolution using blending, Douglas DeCarlo (Penn), Dimitri Metaxas (Penn).
- Topologically adaptable snakes, Tim McInerney (Toronto), Demetri Terzopoulos (Toronto).
- On multi-feature integration for deformable boundary finding, Amit Chakraborty (Yale), Marcel Worring (Amsterdam), James Duncan (Yale).
- Curve and surface smoothing without shrinkage, Gabriel Taubin (IBM).
- Surface geometry from cusps of apparent contours, Roberto Cipolla (Cambridge), Gordon Fletcher (Liverpool), Peter Giblin (Liverpool).
- Multiscale detection of curvilinear structures in 2d and 3d image data, Thomas Koller (ETH), G. Gerig (ETH), Gabor Szekely (ETH), Daniel Dettwiler (ETH).

- An integral approach to free-formed object modeling, Heung-Yeung Shum (CMU), Martial Hebert (CMU), Katsushi Ikeuchi (CMU), Raj Reddy (CMU).
- Recovering object surfaces from viewed changes in surface texture patterns, Peter Belhumeur (Yale), Alan Yuille (Harvard).
- A linear method for reconstruction from lines and points, Richard Hartley (GE).
- Site model acquisition and extension from aerial images, Robert Collins (UMass), Yong-Qing Cheng (UMass), Chris Jaynes (UMass), Frank Stolle (UMass), Xiaoquang Wang (UMass), Allen Hanson (UMass), Edward Riseman (UMass).
- Affine surface reconstruction by purposive viewpoint control, Kiriakos Kutulakos (Rochester)
- Estimating the tensor of curvature of a surface from a polyhedral approximation, Gabriel Taubin (IBM).
- Hierarchical statistical models for the fusion of multiresolution image data, J.M. Laferte (IRISA-INRIA), F. Heitz (ENSPOS-LSIIT), P. Perez (IRISA-INRIA), E. Fabre (IRISA-INRIA).
- Statistical learning, localization, and identification of objects, J. Hornegger (Erlangen), H. Niemann (Erlangen).
- Trilinearity of three perspective views and its associated tensor, Amnon Shashua (Hebrew), Michael Werman (Hebrew).
- Invariant of a pair of non-coplanar conics in space: Definition, geometric interpretation and computation, Long Quan (LIFIA-CNRS-INRIA).
- A comparison of projective reconstruction methods for pairs of views, C. Rothwell (INRIA), G. Csurka (INRIA), O. Faugeras (INRIA).
- A quantitative analysis of view degeneracy and its use for active focal length control, David Wilkes (Ontario Hydro), Sven Dickinson (Rutgers), John Tsotsos (Toronto).
- Rigidity checking of 3D point correspondences under perspective projection, Daniel McReynolds (UBC), David Lowe (UBC).
- On the geometry and algebra of the point and line correspondences between N images, Olivier Faugeras (INRIA), Bernard Mourrain (INRIA).
- Rendering real-world objects using view interpolation, Tomas Werner (Czech Technical Univ.), Roger Hersch (Ecole Polytechnique – Lausanne), Vaclav Hlavac (Czech Technical Univ.).
- Determining wet surfaces from dry, Howard Mall, Jr. (Central Florida), Niels da Vitoria Lobo (Central Florida).

- Expected performance of robust estimators near discontinuities, Charles Stewart (RPI).
- Auxiliary variables for deformable modelscomputer vision problems, Laurent Cohen (CEREMADE).
- Improving laser triangulation sensors using polarization, J. Clark (Heriot-Watt), E. Trucco (Heriot-Watt), H.-F. Cheung (Lancaster).
- Better optical triangulation through spacetime analysis, Brian Curless (Stanford), Marc Levoy (Stanford).
- Real-time focus range sensor, Shree Nayar (Columbia), Masahiro Watanabe (Hitachi), Minori Noguchi (Hitachi).
- Active fixation using attentional shifts, affine resampling, and multiresolution search, A.L. Abbott (Virginia Tech), B. Zheng (Virginia Tech)
- Calibration-free visual control using projective invariance, Gregory Hager (Yale).
- Annular symmetry operators: A method for locating and describing objects, M. Kelly (McGill), M. Levine (McGill).

SESSION 12 – Representations, Geometry – 4:30 – 5:30
Co-chairs: Luc van Gool (Lueven), Alan Yuille (Harvard)

- COSMOS - A representation scheme for free-form surfaces, Chitra Dorai (Michigan State), Anil Jain (Michigan State).
- Epipole and fundamental matrix estimation using virtual parallax, Boubakeur-Seddik Boufama (LIFIA-INRIA), Roger Mohr (LIFIA-INRIA).
- Robust detection of degenerate configurations for the fundamental matrix, Philip Torr (Oxford), Andrew Zisserman (Oxford), Stephen Maybank (Oxford).

Open Houses – MIT Media Lab, MIT AI Lab – 5:30 – 9:00

FRIDAY, JUNE 23
SESSION 13 – Motion – 8:00 – 9:40
Co-chairs: Takeo Kanade (CMU), Richard Szeliski (DEC)

- Detecting kinetic occlusion, Sourabh Niyogi (MIT).
- A model of figure-ground segregation from kinetic occlusion, George Chou (MIT)

- Reconstruction from image sequences by means of relative depths, Anders Heyden, (Lund).
- In defence of the 8-point algorithm, Richard Hartley (GE).
- A multi-body factorization method for motion analysis, Joao Costeira (CMU), Takeo Kanade (CMU).

SESSION 14 – Stereo, Robot Vision – 10:10 – 11:50
Co-chairs: Aaron Bobick (MIT), Peter Burt (Sarnoff)

- Reconstructing complex surfaces from multiple stereo views, Pascal Fua (SRI).
- Stereo in the presence of specular reflection, Dinkar Bhat (Columbia), Shree Nayar (Columbia).
- A robot system that observes and replicates grasping tasks, Sing Bang Kang (DEC), Katsushi Ikeuchi (CMU).
- Transfer of fixation for an active stereo platform via affine structure recovery, Stuart Fairley (Oxford), Ian Reid (Oxford), David Murray (Oxford).
- Task-oriented generation of visual sensing strategies, Jun Miura (Osaka), Katsushi Ikeuchi (CMU).