

Table of Contents

I LNCS 2879: MICCAI 2003 Proceedings, Part II

Medical Image Processing

Objective Evaluation of Facial Paralysis by Asymmetry in Expressions	1
<i>Pujitha Gunaratne, Yukio Sato</i>	
Tissue-Based Affine Registration of Brain Images to form a Vascular Density Atlas	9
<i>Derek Cool, Dini Chillet, Jisung Kim, Jean-Phillipe Guyon, Mark Foskey, Stephen Aylward</i>	
Quantitative Analysis of White Matter Fiber Properties along Geodesic Paths	16
<i>Pierre Fillard, John Gilmore, Joseph Piven, Weili Lin, Guido Gerig</i>	
Three Dimensional Comparison of Interventional MR Radiofrequency Ablation Images with Tissue Response	24
<i>Michael S. Breen, David L. Wilson, Roe S. Lazebnik, Jonathan S. Lewin</i>	
De-noising SPECT/PET Images Using Cross-Scale Regularization	32
<i>Yinpeng Jin, Elsa D. Angelini, Peter D. Esser, Andrew F. Laine</i>	
Intensity Compensation within Series of Images	41
<i>Grégoire Malandain, Eric Bardinet</i>	
A Method for Analysis of Electrophysiological Responses Obtained from the Motor Fibers of the Human Internal Capsule	50
<i>E.G. Duerden, K.W. Finnis, T.M. Peters, A.F. Sadikot</i>	
Patient Classification of fMRI Activation Maps	58
<i>James Ford, Hany Farid, Fillia Makedon, Laura A. Flashman, Thomas W. McAllister, Vasilis Megalooikonomou, Andrew J. Saykin</i>	
Combining Front Propagation with Shape Knowledge for Accurate Curvilinear Modelling	66
<i>Rongxin Li, Sébastien Ourselin</i>	
Unsupervised Learning and Mapping of Brain fMRI Signals Based on Hidden Semi-Markov Event Sequence Models	75
<i>Sylvain Faisan, Laurent Thoraval, Jean-Paul Armspach, Fabrice Heitz</i>	

Feature Detection in fMRI Data: The Information Bottleneck Approach	83
<i>Bertrand Thirion, Olivier Faugeras</i>	
Regularization of Diffusion Tensor Maps Using a Non-Gaussian Markov Random Field Approach	92
<i>Marcos Martín-Fernández, Carlos Alberola-López, Juan Ruiz-Alzola, Carl-Fredrik Westin</i>	
Quantifying Evolving Processes in Multimodal 3D Medical Images	101
<i>Yuhang Wang, Tilmann Steinberg, Fillia Makedon, James Ford, Heather Wishart, Andrew Saykin</i>	
Detection of Objects by Integrating Watersheds and Critical Point Analysis	109
<i>G. Fu, S.A. Hojjat, A.C.F. Colchester</i>	
A Superresolution Framework for fMRI Sequences and Its Impact on Resulting Activation Maps	117
<i>P. Kornprobst, R. Peeters, M. Nikolova, R. Deriche, M. Ng, P. Van Hecke</i>	
3D Reconstruction from Truncated Rotational Angiograms Using Linear Prediction	126
<i>Ramesh R. Galigekere, David W. Holdsworth</i>	
Tomographic Reconstruction for Truncated Cone Beam Data Using Prior CT Information	134
<i>Krishnakumar Ramamurthi, Jerry Prince</i>	
VETOT, Volume Estimation and Tracking Over Time: Framework and Validation	142
<i>Jean-Philippe Guyon, Mark Foskey, Jisung Kim, Zeynep Firat, Barbara Davis, Karen Haneke, Stephen R. Aylward</i>	
Generalized Image Models and Their Application as Statistical Models of Images	150
<i>Miguel Ángel González Ballester, Xavier Pennec, Nicholas Ayache</i>	
Scan-Conversion Algorithm for Ridge Point Detection on Tubular Objects	158
<i>Sukmoon Chang, Dimitris N. Metaxas, Leon Axel</i>	
Visualization and Navigation	
Cortical Shift Tracking Using a Laser Range Scanner and Deformable Registration Methods	166
<i>Tuhin K. Sinha, Valerie Duay, Benoit M. Dawant, Michael I. Miga</i>	

Computed Cleansing for Virtual Colonoscopy Using a Three-Material Transition Model	175
<i>Iwo Serlie, Roel Truyen, Jasper Florie, Frits Post, Lucas van Vliet, Frans Vos</i>	
A Navigation System for Augmenting Laparoscopic Ultrasound	184
<i>James Ellsmere, Jeffrey Stoll, David Rattner, David Brooks, Robert Kane, William Wells, Ron Kikinis, Kirby Vosburgh</i>	
Tracking Three Dimensional Ultrasound with Immunity from Ferro-Magnetic Interference	192
<i>Florence H. Sheehan, Mark Schneider, Edward L. Bolson, Benjamin Webster</i>	
Development of Computer-Assisted Radial Head Replacement	199
<i>Rebecca A. Stacpoole, Louis M. Ferreira, Graham J.W. King, James A. Johnson</i>	
Visualization of Neural DTI Vector Fields Using Line Integral Convolution	207
<i>S.C.L. Deoni, B.K. Rutt, T.M. Peters</i>	
A Direction Space Interpolation Technique for Calibration of Electromagnetic Surgical Navigation Systems	215
<i>Xiaohui Wu, Russell Taylor</i>	
Hand-Held Steerable Needle Device	223
<i>R. Ebrahimi, S. Okazawa, R. Rohling, S.E. Salcudean</i>	
Minimally Invasive Navigation for the Endovascular Treatment of Abdominal Aortic Aneurysm: Preclinical Validation of the Endovax System	231
<i>Sonia Pujol, Philippe Cinquin, Matthieu Pecher, Ivan Bricault, David Voirin</i>	
Laser Projection Augmented Reality System for Computer Assisted Surgery	239
<i>Neil Glossop, Chris Wedlake, John Moore, Terry Peters, Zhanhe Wang</i>	
An Autostereoscopic Display System for Image-Guided Surgery Using High-Quality Integral Videography with High Performance Computing...	247
<i>Hongen Liao, Nobuhiko Hata, Makoto Iwahara, Ichiro Sakuma, Takeyoshi Dohi</i>	
Enhanced 3D-Visualization of Intracranial Aneurysms Involving the Skull Base	256
<i>F. Vega Higuera, N. Sauber, B. Tomandl, C. Nimsky, G. Greiner, P. Hastreiter</i>	

Comparison of Correction Protocols for Image-Guided Radiation Therapy	264
<i>Tim Craig, Michael Sharpe, Tara Haycocks, Jean-Pierre Bissionnette, Charles Catton, David Jaffray</i>	
A Control System for MRI-Guided Conformal Interstitial Thermal Therapy	271
<i>R. Chopra, S.N. Baker, M. Burtnyk, A.J. Weymouth, M.J. Bronskill</i>	
Area-Preserving Mappings for the Visualization of Medical Structures ...	277
<i>Lei Zhu, Steven Haker, Allen Tannenbaum</i>	
A Rapid Method for Magnetic Tracker Calibration Using a Magneto-Optic Hybrid Tracker	285
<i>Kazuhisa Nakada, Masahiko Nakamoto, Yoshinobu Sato, Kozo Konishi, Makoto Hashizume, Shinichi Tamura</i>	
Tensor Splats: Visualising Tensor Fields by Texture Mapped Volume Rendering	294
<i>Abhir Bhalerao, Carl-Fredrik Westin</i>	
Comparison of an Optical and a Mechanical Navigation System	303
<i>S. Martelli, S. Bignozzi, M. Bontempi, S. Zaffagnini, L. Garcia</i>	
Interventional Imaging	
Integration of Projection Profile Matching into Clinical MR Scanner System for Real-Time Organ Tracking and Image Registration ..	311
<i>Junichi Tokuda, Masaya Hirano, Tetsuji Tsukamoto, Takeyoshi Dohi, Nobuhiko Hata</i>	
Projection-Based Needle Segmentation in 3D Ultrasound Images	319
<i>Mingyue Ding, Aaron Fenster</i>	
From Anatomic Standardization Analysis of Perfusion SPECT Data to Perfusion Pattern Modelling	328
<i>Christophe Grova, Pierre Jannin, Irène Buvat, Habib Benali, Jean-Yves Bansard, Arnaud Biraben, Bernard Gibaud</i>	
C-Mode Real Time Tomographic Reflection for a Matrix Array Ultrasound Sonic Flashlight	336
<i>George Stetten, Aaron Cois, Wilson Chang, Damion Shelton, Robert Tamburo, John Castellucci, Olaf von Ramm</i>	
Local 3D Reconstruction and Augmented Reality Visualization of Free-Hand Ultrasound for Needle Biopsy Procedures	344
<i>Ali Khamene, Sebastian Vogt, Fred Azar, Tobias Sielhorst, Frank Sauer, Heinrich Niemann</i>	

A System for Real-Time Endoscopic Image Enhancement	356
<i>Florian Vogt, Sophie Krüger, Heinrich Niemann, Christoph Schick</i>	
Image Registration and Fusion for Interventional MRI Guided Thermal Ablation of the Prostate Cancer	364
<i>Baowei Fei, Zhenghong Lee, Daniel T. Boll, Jeffery L. Duerk, Jonathan S. Lewin, David L. Wilson</i>	
Camera Model and Calibration Procedure for Oblique-Viewing Endoscope	373
<i>Tetsuzo Yamaguchi, Masahiko Nakamoto, Yoshinobu Sato, Yoshikazu Nakajima, Kozo Konishi, Makoto Hashizume, Takashi Nishii, Nobuhiko Sugano, Hideki Yoshikawa, Kazuo Yonenobu, Shinichi Tamura</i>	
Freehand Ultrasound Reconstruction Based on ROI Prior Modeling and Normalized Convolution	382
<i>Raúl San José Estépar, Marcos Martín-Fernández, Carlos Alberola-López, James Ellsmere, Ron Kikinis, Carl-Fredrik Westin</i>	
Relative Performance of Geometric Search Algorithms for Interpolating Unstructured Mesh Data.....	391
<i>Mahdieh Khoshniat, Gordan R. Stuhne, David A. Steinman</i>	
Displacement Correction Scheme for MR-Guided Interstitial Laser Therapy	399
<i>S. Suprijanto, M.W. Vogel, F.M. Vos, H.A. Vrooman, A.M. Vossepoel</i>	
Non-rigid Registration of 3D Ultrasound Images of Brain Tumours Acquired during Neurosurgery	408
<i>Marloes M.J. Letteboer, Peter W.A. Willems, Max A. Viergever, Wiro J. Niessen</i>	
Volume Reconstruction from Sparse 3D Ultrasonography	416
<i>Mark J. Gooding, Stephen Kennedy, J. Alison Noble</i>	
PUPIL: Programmable Ultrasound Platform and Interface Library	424
<i>Robert Rohling, Wilson Fung, Pedram Lajevardi</i>	
Intravascular Ultrasound Image Segmentation: A Fast-Marching Method .	432
<i>Marie-Hélène Roy Cardinal, Jean Meunier, Gilles Soulez, Éric Thérasse, Guy Cloutier</i>	
Robust and Automatic Calibration Method for 3D Freehand Ultrasound .	440
<i>François Rousseau, Pierre Hellier, Christian Barillot</i>	

The Potential for Image Guided Radiation Therapy with Cobalt-60 Tomotherapy	449
<i>L. John Schreiner, Andrew Kerr, Greg Salomons, Christine Dyck, George Hajdok</i>	

Image Morphometry

Characterization of Brain Plasticity in Schizophrenia Using Template Deformation	457
<i>Abraham Dubb, Zhiyong Xie, Ruben Gur, Raquel Gur, James Gee</i>	
Boundary and Medial Shape Analysis of the Hippocampus in Schizophrenia	464
<i>Martin Styner, Jeffrey A. Lieberman, Guido Gerig</i>	
Image Analysis of Newborn Plantar Surface for Gestational Age Determination	472
<i>Olga R.P. Bellon, Maurício Severich, Luciano Silva, Mônica N.L. Cat, Kim L. Boyer</i>	
Corresponding Articular Cartilage Thickness Measurements in the Knee Joint by Modelling the Underlying Bone	480
<i>Tomos G. Williams, Christopher J. Taylor, ZaiXiang Gao, John C. Waterton</i>	
An Automated 3D Algorithm for Neo-cortical Thickness Measurement ..	488
<i>S. Srivastava, F. Maes, D. Vandermeulen, P. Dupont, W. Van Paesschen, P. Suetens</i>	
Nonlinear Diffusion Scale-Space and Fast Marching Level Sets for Segmentation of MR Imagery and Volume Estimation of Stroke Lesions	496
<i>Jerod Weinman, George Bissias, Joseph Horowitz, Edward Riseman, Allen Hanson</i>	
3D Moment Invariant Based Morphometry	505
<i>J.-F. Mangin, F. Poupon, D. Rivière, A. Cachia, D.L. Collins, A.C. Evans, J. Régis</i>	
Morphometric Analysis of Brain Structures for Improved Discrimination	513
<i>Li Shen, James Ford, Fillia Makedon, Yuhang Wang, Tilman Steinberg, Song Ye, Andrew Saykin</i>	
An Investigation of Morphometric Changes in the Lateral Ventricles of Schizophrenic Subjects	521
<i>Kolawole Babalola, Jim Graham, William Honer, Lili Kopala, Donna Lang, Robert Vandorpe</i>	

Segmentation II

Robust Estimation for Brain Tumor Segmentation	530
<i>Marcel Prastawa, Elizabeth Bullitt, Sean Ho, Guido Gerig</i>	
Automated Segmentation of Abdominal Aortic Aneurysms in Multi-spectral MR Images	538
<i>Marleen de Bruijne, Bram van Ginneken, Lambertus W. Bartels, Maarten J. van der Laan, Jan D. Blankensteijn, Wiro J. Niessen, Max. A. Viergever</i>	
Ground Truth in MS Lesion Volumetry – A Phantom Study	546
<i>Jan Rexilius, Horst K. Hahn, Holger Bourquain, Heinz-Otto Peitgen</i>	
Region Segmentation Using Information Divergence Measures	554
<i>Lyndon S. Hibbard</i>	
Hierarchical Segmentation of Thin Structures in Volumetric Medical Images	562
<i>Michal Holtzman-Gazit, Dorith Goldsher, Ron Kimmel</i>	
Segmenting 3D Branching Tubular Structures Using Cores	570
<i>Yonatan Fridman, Stephen M. Pizer, Stephen Aylward, Elizabeth Bullitt</i>	
Extraction and Application of Expert Priors to Combine Multiple Segmentations of Human Brain Tissue	578
<i>Torsten Rohlfing, Daniel B. Russakoff, Calvin R. Maurer, Jr.</i>	
A New Brain Segmentation Framework	586
<i>Torsten Butz, Patric Hagmann, Eric Tardif, Reto Meuli, Jean-Philippe Thiran</i>	
Three-Dimensional Segmentation of Brain Aneurysms in CTA Using Non-parametric Region-Based Information and Implicit Deformable Models: Method and Evaluation	594
<i>Monica Hernandez, Alejandro F. Frangi, Guillermo Sapiro</i>	
A Method for Segmenting Bronchial Trees from 3D Chest X-ray CT Images	603
<i>Takayuki Kitasaka, Kensaku Mori, Yasuhito Suenaga, Jun-ichi Hasegawa, Jun-ichiro Toriwaki</i>	
Progression Detection of Glaucoma from Polarimetric Images	611
<i>K.A. Vermeer, N.J. Reus, F.M. Vos, H.G. Lemij, A.M. Vossepoel</i>	
Quantification of Retinopathy of Prematurity via Vessel Segmentation	620
<i>Julien Jomier, David K. Wallace, Stephen R. Aylward</i>	

Atlas-Based Segmentation of the Brain for 3-Dimensional Treatment Planning in Children with Infratentorial Ependymoma	627
<i>Pierre-François D’Haese, Valerie Duay, Thomas E. Merchant, Benoit Macq, Benoit M. Dawant</i>	
Rapid and Automated Extraction of the Fourth Ventricle from MR Images	635
<i>Yan Xia, Aamer Aziz, QingMao Hu, Wieslaw L. Nowinski</i>	
Expert Knowledge Guided Segmentation System for Brain MRI	644
<i>Alain Pitiot, Hervé Delingette, Nicholas Ayache, Paul M. Thompson</i>	
Age and Treatment Related Local Hippocampal Changes in Schizophrenia Explained by a Novel Shape Analysis Method	653
<i>Guido Gerig, Keith E. Muller, Emily O. Kistner, Yueh-Yun Chi, Miranda Chakos, Martin Styner, Jeffrey A. Lieberman</i>	
Caudate Shape Discrimination in Schizophrenia Using Template-Free Non-parametric Tests	661
<i>Y. Sampath K. Vetsa, Martin Styner, Stephen M. Pizer, Jeffrey A. Lieberman, Guido Gerig</i>	
Diagonalized Nearest Neighbor Pattern Matching for Brain Tumor Segmentation	670
<i>David T. Gering</i>	
User-Aided Boundary Delineation through the Propagation of Implicit Representations	678
<i>Nikos Paragios</i>	
Minimum Cost Path Algorithm for Coronary Artery Central Axis Tracking in CT Images	687
<i>S.D. Olabarriaga, M. Breeuwer, W.J. Niessen</i>	
Topological Correction of Subcortical Segmentation	695
<i>Florent Ségonne, Eric Grimson, Bruce Fischl</i>	
Gibbs Prior Models, Marching Cubes and Deformable Models: A Hybrid Framework for 3D Medical Image Segmentation	703
<i>Ting Chen, Dimitris Metaxas</i>	
A Statistically Based Surface Evolution Method for Medical Image Segmentation: Presentation and Validation	711
<i>Eric Pichon, Allen Tannenbaum, Ron Kikinis</i>	
Boundary Finding with Curve Embedding Potential Field	721
<i>Gary H.P. Ho, Pengcheng Shi</i>	

A Topographic Representation for Mammogram Segmentation	730
<i>Byung-Woo Hong, Michael Brady</i>	
A Multiscale Feature Detector for Morphological Analysis of the Brain . . .	738
<i>Marius George Linguraru, Miguel Ángel González Ballester, Nicholas Ayache</i>	
User-Defined B-Spline Template-Snakes	746
<i>Tim McInerney, Hoda Dehmeshki</i>	
Exploring Symmetries in Breast MRI Scan	754
<i>Robert Alterson, Donald B. Plewes</i>	

Registrations and Atlases

Correspondence Detection Using Wavelet-Based Attribute Vectors	762
<i>Zhong Xue, Dinggang Shen, Christos Davatzikos</i>	
Groupwise Non-rigid Registration Using Polyharmonic Clamped-Plate Splines	771
<i>Stephen Marsland, Carole J. Twining, Chris J. Taylor</i>	
Deformable Registration of Cortical Structures via Hybrid Volumetric and Surface Warping	780
<i>Tianming Liu, Dinggang Shen, Christos Davatzikos</i>	
Computing 3D Non-rigid Brain Registration Using Extended Robust Point Matching for Composite Multisubject fMRI Analysis	788
<i>Xenophon Papademetris, Andrea P. Jackowski, Robert T. Schultz, Lawrence H. Staib, James S. Duncan</i>	
Grid Refinement in Adaptive Non-rigid Registration	796
<i>Hyunjin Park, Charles R. Meyer</i>	
Grid Enabled Non-rigid Registration with a Dense Transformation and a Priori Information	804
<i>Radu Stefanescu, Xavier Pennec, Nicholas Ayache</i>	
An Information Theoretic Approach for Non-rigid Image Registration Using Voxel Class Probabilities	812
<i>E. D'Agostino, F. Maes, D. Vandermeulen, P. Suetens</i>	
Comparison of Local External Force Functions for Non-rigid Registration of 3D Medical Images	821
<i>Hannu Helminen, Jyrki Alakuijala, Katja Pesola, Joakim Laitinen</i>	
Polyrigid and Polyaffine Transformations: A New Class of Diffeomorphisms for Locally Rigid or Affine Registration	829
<i>Vincent Arsigny, Xavier Pennec, Nicholas Ayache</i>	

Statistical Atlas-Based Detection of Abnormalities in Brain Perfusion: Comparing Models and Estimating Detection Performance ...	838
<i>Torbjørn Vik, Fabrice Heitz, Jean-Paul Armspach</i>	
Multiresolution Biomedical Image Registration Using Generalized Information Measures	846
<i>Mark P. Wachowiak, Renata Smolíková, Terry M. Peters</i>	
Support Vector Machine Density Estimator as a Generalized Parzen Windows Estimator for Mutual Information based Image Registration ...	854
<i>Sudhakar Chelikani, Kailasnath Purushothaman, James S. Duncan</i>	
Mapping Techniques for Aligning Sulci across Multiple Brains	862
<i>Duygu Tosun, Maryam E. Rettmann, Jerry L. Prince</i>	
Anatomically Guided Registration of Whole Body Mouse MR Images ...	870
<i>N. Kovacevic, G. Hamarneh, M. Henkelman</i>	
Segmentation, Registration, and Deformation Analysis of 3D MR Images of Mice	878
<i>Ghassan Hamarneh, Josette Chen, Brian Neiman, Jeff Henderson, Mark Henkelman</i>	
Iterating Registration and Activation Detection to Overcome Activation Bias in fMRI Motion Estimates	886
<i>Jeff Orchard</i>	
Geostatistical Medical Image Registration	894
<i>J. Ruiz-Alzola, E. Suarez, C. Alberola-Lopez, S.K. Warfield, C.-F. Westin</i>	
Active Shape Analysis of Mandibular Growth.....	902
<i>Klaus B. Hilger, Rasmus Larsen, Sven Kreiborg, Søren Krarup, Tron A. Darvann, Jeffrey L. Marsh</i>	
Tuning and Comparing Spatial Normalization Methods	910
<i>Steven Robbins, Alan C. Evans, D. Louis Collins, Sue Whitesides</i>	
The Euler-Lagrange Equation for Interpolating Sequence of Landmark Datasets	918
<i>Mirza Faisal Beg, Michael Miller, Alain Trouvé, Laurent Younes</i>	
Establishing Local Correspondences towards Compact Representations of Anatomical Structures	926
<i>Xiaolei Huang, Nikos Paragios, Dimitris Metaxas</i>	

2-D to 3-D Refinement of Post Mortem Optical and MRI Co-registration	935
<i>C. Kenwright, É. Bardinet, S.A. Hojjat, G. Malandain, N. Ayache, A.C.F. Colchester</i>	

Short Communications

Brachytherapy Seed Localization from Fluoroscopic Images Using a Statistical Classifier	945
<i>Yi Su, Brian J. Davis, Michael G. Herman, Wayne N. LaJoie, Richard A. Robb</i>	
Percutaneous Pedicle Cannulation: An In-vitro Study Assessing Clinical Expertise versus Technology	947
<i>Y. Raja Rampersaud, Henry Ahn</i>	
SABRE: A Time Efficient Semi-automated Regional Parcellation Method for Structural Magnetic Resonance Brain Images	949
<i>L.A Dade, F.Q. Gao, N. Kovacevic, P. Roy, C. Rockel, C.M. O'Toole, A. Quddus, A. Feinstein, B. Levine, S.E. Black</i>	
The AAM-API: An Open Source Active Appearance Model Implementation	951
<i>Mikkel B. Stegmann</i>	
Needle Detection and Tracking in the TIPS Endovascular Procedure.....	953
<i>Benoît Jolly, Mark Van Horn, Stephen Aylward, Elizabeth Bullitt</i>	
Two Bone Fragment Manipulation in Computer-Assisted Preoperative Planning: Restoration of the Radial Bow	955
<i>G.S. Athwal, S. Leclaire, R.E. Ellis, D.R. Pichora</i>	
Shape-Based Interpolation of Porous and Tortuous Binary Objects	957
<i>Srinivasan Rajagopalan, Ronald A. Karwoski, Richard A. Robb</i>	
Computer Assisted Alignment of the Oxford Unicompartmental Knee Arthroplasty: The Kingston Experience with Three Techniques	959
<i>D.J. Mayman, J.F. Rudan, D.R. Pichora, D. Watson, R.E. Ellis</i>	
Accuracy of Fully Automatic vs. Manual Planning of Cardiac MR Acquisitions	961
<i>M.G. Danilouchkine, J.J.M. Westenberg, H.J. Lamb, J.H.C. Reiber, B.P.F. Lelieveldt</i>	
Robotically Assisted Interventions: Clinical Trial for Spinal Blocks	963
<i>Kevin Cleary, Vance Watson, David Lindisch, Alexandru Patriciu, Dumitru Mazilu, Dan Stoianovici</i>	

Using 3D Non Rigid FFD-Based Method to Register post mortem 3D Histological Data and in vivo MRI of a Baboon Brain	965
<i>T. Delzescaux, J. Dauquet, F. Condé, R. Maroy, V. Frouin</i>	
Analysis Tool for Diffusion Tensor MRI	967
<i>Pierre Fillard, Guido Gerig</i>	
Tool Localization in 3D Ultrasound Images	969
<i>Paul M. Novotny, Jeremy W. Cannon, Robert D. Howe</i>	
Automatic Nipple Detection on Mammograms	971
<i>Styliani Petroudi, Michael Brady</i>	
Selective Use of Face Gesture Interface and Instrument Tracking System for Control of a Robotic Laparoscope Positioner	973
<i>Atsushi Nishikawa, Shuichi Asano, Ryo Fujita, Satoshi Yamaguchi, Takahiro Yohda, Fumio Miyazaki, Mitsugu Sekimoto, Masayoshi Yasui, Yasuhiro Miyake, Shuji Takiguchi, Morito Monden</i>	
Surface Coil Intensity Correction and Non-linear Intensity Normalization Improve Pixel-Resolution Parametric Maps of Myocardial MRI Perfusion	975
<i>Li-yueh Hsu, Kenneth L. Rhoads, Anthony H. Aletras, Andrew E. Arai</i>	
A Topology Preserving Method for 3-D Non-rigid Brain Image Registration	977
<i>Vincent Noblet, Christian Heinrich, Fabrice Heitz, Jean-Paul Armspach</i>	
Assessing Early Brain Development in Neonates by Segmentation of High-Resolution 3T MRI	979
<i>Guido Gerig, Marcel Prastawa, Weili Lin, John Gilmore</i>	
ImLib3D: An Efficient, Open Source, Medical Image Processing Framework in C++	981
<i>Marcel Bosc, Torbjorn Vik, Jean-Paul Armspach, Fabrice Heitz</i>	
Real-Time Segmentation of Trans-Urethral Ultrasound Images for Prostate Brachytherapy	983
<i>David R. Holmes, Richard A. Robb</i>	
A Framework for Determining Component and Overall Accuracy for Computer Assisted Surgery Systems	985
<i>A.B. Mor, J.E. Moody, D. Davidson, R.S. Labarca, B. Jaramaz, A.M. Digioia</i>	
Validation of the Automatic Computation of the Ejection Fraction from Cine-MRI	987
<i>A. Pednekar, I.A. Kakadiaris, U. Kurkure, R. Muthupillai, S. Flamm</i>	

Homomorphic Filtering of DT-MRI Fields	990
<i>C.A. Castaño Moraga, C.-F. Westin, J. Ruiz-Alzola</i>	
Weakly-Supervised Segmentation of Non-gaussian Images via Histogram Adaptation	992
<i>Jonas August</i>	

Author Index

Medical Image Computing and Computer-Assisted
Intervention - MICCAI 2003

6th International Conference, Montréal, Canada,
November 15-18, 2003, Proceedings, Part II

Ellis, R.E.; Peters, T.M. (Eds.)

2003, LXVIII, 1006 p., Softcover

ISBN: 978-3-540-20464-0