

Poster Session 1 - Surgical Navigation and Robotics

13:30 - 15:15 (e-Teaser 13:30- 13:50)

Monday (21st Sept)

Chair: A. Jain

P1-01-M

i-BRUSH: A Gaze-Contingent Virtual Paintbrush for Dense 3D Reconstruction in Robotic Assisted Surgery (I-353)

Marco Visentini-Scarzanella, George P. Mylonas, Danail Stoyanov, Guang-Zhong Yang

P1-04-M

Towards Interactive Planning of Coil Embolization in Brain Aneurysms (I-377)

Jeremie Dequidt, Christian Duriez, Stephane Cotin, Erwan Kerrien

P1-07-M

System Design of a Hand-Held Mobile Robot for Craniotomy (I-402)

Gavin Kane, Georg Eggers, Robert Boesecke, Jörg Raczkowski, Heinz Wörn, Rüdiger Marmulla, Joachim Mühling

P1-10-M

Data-Derived Models for Segmentation with Application to Surgical Assessment and Training (I-426)

Balakrishnan Varadarajan, Carol Reiley, Henry Lin, Sanjeev Khudanpur, Gregory Hager

Tuesday (22nd Sept)

Chair: P. Jannin

P1-02-T

Targeting Accuracy under Model-to-Subject Misalignments in Model-Guided Cardiac Surgery (I-361)

Cristian A. Linte, John Moore, Andrew D. Wiles, Chris Wedlake, Terry M. Peters

P1-05-T

Temporal Estimation of the 3d Guide-Wire Position using 2d X-ray Images (I-386)

Marcel Brückner, Frank Deinzer, Joachim Denzler

P1-08-T

Dynamic Active Constraints for Hyper-Redundant Flexible Robots (I-410)

Ka-Wai Kwok, George P. Mylonas, Loi Wah Sun, Mirna Lerotic, James Clark, Thanos Athanasiou, Ara Darzi, Guang-Zhong Yang

P1-11-T

Task versus Subtask Surgical Skill Evaluation of Robotic Minimally Invasive Surgery (I-435)

Carol E. Reiley, Gregory D. Hager

Wednesday (23rd Sept)

Chair: E. Bullit

P1-03-W

Patient Specific 4D Coronary Models from ECG-gated CTA Data for Intra-operative Dynamic Alignment of CTA with X-ray Images (I-369)

Coert T. Metz, Michiel Schaap, Stefan Klein, Lisan A. Neeffes, Ermanno Capuano, Carl Schultz, Robert Jan van Geuns, Patrick W. Serruys, Theo van Walsum, Wiro J. Niessen

P1-06-W

3-D Respiratory Motion Compensation during EP Procedures by Image-Based 3-D Lasso Catheter Model Generation and Tracking (I-394)

Alexander Brost, Rui Liao, Joachim Hornegger, Norbert Strobel

P1-09-W

Nonmagnetic Rigid and Flexible Outer Sheath with Pneumatic Interlocking Mechanism for Minimally Invasive Surgical Approach (I-418)

Hirosama Yamashita, Siyang Zuo, Ken Masamune, Hongen Liao, Takeyoshi Dohi

P1-12-W

Development of the Ultra-Miniaturized Inertial Measurement Unit WB3 for Objective Skill Analysis and Assessment in Neurosurgery: Preliminary Results (I-443)

Massimiliano Zecca, Salvatore Sessa, Zhuohua Lin, Takashi Suzuki, Tomoya Sasaki, Kazuko Itoh, Hiroshi Iseki, Atsuo Takanishi

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P1-13-M

Novel Endoscope System with Plasma Flushing for Off-Pump Cardiac Surgery (I-451)

Ken Masamune, Tetsuya Horiuchi, Masahiro Mizutani, Hiromasa Yamashita, Hiroyuki Tsukihara, Noboru Motomura, Shinichi Takamoto, Hongen Liao, Takeyoshi Dohi

P1-16-M

In Vivo OCT Coronary Imaging Augmented with Stent Reendothelialization Score (I-475)

Florian Dubuisson, Claude Kauffmann, Pascal Motreff, Laurent Sarry

P1-19-M

Probabilistic Region Matching in Narrow-Band Endoscopy for Targeted Optical Biopsy (I-499)

Selen Atasoy, Ben Glocker, Stamatia Giannarou, Diana Mateus, Alexander Meining, Guang-Zhong Yang, Nassir Navab

P1-22-M

Cervical Vertebrae Tracking in Video-Fluoroscopy Using the Normalized Gradient Field (I-524)

Rianne Reinartz, Bram Platel, Toon Bosellie, Henk van Mameren, Henk Van Santbrink, Bart ter Haar Romeny

Tuesday (22nd Sept)

Chair: P. Jannin

P1-14-T

Endoscopic Orientation Correction (I-459)

Kurt Höller, Jochen Penne, Armin Schneider, Jasper Jahn, Javier Gutiérrez Boronat, Thomas Wittenberg, Hubertus Feußner, Joachim Hornegger

P1-17-T

Optical Biopsy Mapping for Minimally Invasive Cancer Screening (I-483)

Peter Mountney, Stamatia Giannarou, Daniel Elson, Guang-Zhong Yang

P1-20-T

Tracked Regularized Ultrasound Elastography for Targeting Breast Radiotherapy (I-507)

Hassan Rivaz, Pezhman Foroughi, Ioana Fleming, Richard Zellars, Emad Boctor, Gregory Hager

P1-23-T

Expertise Modeling for Automated Planning of Acetabular Cup in Total Hip Arthroplasty Using Combined Bone and Implant Statistical Atlases (I-532)

Itaru Otomaru, Kazuto Kobayashi, Toshiyuki Okada, Masahiko Nakamoto, Yoshiyuki Kagiyama, Masaki Takao, Nobuhiko Sugano, Yukio Tada, Yoshinobu Sato

Wednesday (23rd Sept)

Chair: E. Bullit

P1-15-W

Time-of-Flight 3-D Endoscopy (I-467)

Jochen Penne, Kurt Höller, Michael Stürmer, Thomas Schrauder, Armin Schneider, Rainer Engelbrecht, Hubertus Feußner, Bernhard Schmauss, Joachim Hornegger

P1-18-W

Biopsy Site Re-localisation Based on the Computation of Epipolar Lines from Two Previous Endoscopic Images (I-491)

Baptiste Allain, Mingxing Hu, Laurence B. Lovat, Richard Cook, Sebastien Ourselin, David Hawkes

P1-21-W

Image Guidance for Spinal Facet Injections Using Tracked Ultrasound (I-516)

John Moore, Colin Clarke, Daniel Bainbridge, Chris Wedlake, Andrew Wiles, Danielle Pace, Terry Peters

P1-24-W

Wide-Angle Intraocular Imaging and Localization (I-540)

Christos Bergeles, Kamran Shamaei, Jake J. Abbott, Bradley J. Nelson

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P1-25-M

Inverse C-arm Positioning for Interventional Procedures Using Real-Time Body Part Detection (I-549)

Christian Schaller, Christopher Rohkohl, Jochen Penne, Michael Stürmer, Joachim Hornegger

Tuesday (22nd Sept)

Chair: P. Jannin

P1-26-T

A Method to Correct for Brain Shift When Building Electrophysiological Atlases for Deep Brain Stimulation (DBS) Surgery (I-557)

Srivatsan Pallavaram, Benoit M. Dawant, Rui Li, Joseph S. Neimat, Michael S. Remple, Chris Kao, Peter E. Konrad, Pierre-François D'Haese

Wednesday (23rd Sept)

Chair: E. Bullit

Poster Session 2 - Image Registration

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: T. Rohlfing

P2-01-M

Asymmetric Image-Template Registration (I-565)

Mert R. Sabuncu, B.T. Thomas Yeo, Koen Van Leemput, Tom Vercauteren, Polina Golland

Tuesday (22nd Sept)

Chair: J. Gee

P2-02-T

A Demons Algorithm for Image Registration with Locally Adaptive Regularization (I-574)

Nathan D. Cahill, J. Alison Noble, David J. Hawkes

Wednesday (23rd Sept)

Chair: L. Collins

P2-03-W

A Meta Registration Framework for Lesion Matching (I-582)

Sharmishta Seshamani, Purnima Rajan, Rajesh Kumar, Hani Girgis, Themos Dassopoulos, Gerard Mullin, Gregory Hager

P2-04-M

Automatic Robust Medical Image Registration Using a New Democratic Vector Optimization Approach with Multiple Measures (I-590)

Matthias Wacker, Frank Deinzer

P2-05-T

Task-Optimal Registration Cost Functions (I-598)

B.T. Thomas Yeo, Mert Sabuncu, Polina Golland, Bruce Fischl

P2-06-W

Hybrid-Spline based Multimodal Registration Using Local Measures for Joint Entropy and Mutual Information (I-607)

Andreas Biesdorf, Stefan Wörz, Hans-Jürgen Kaiser, Christoph Stippich, Karl Rohr

P2-07-M

A Robust Solution to Multi-modal Image Registration by Combining Mutual Information with Multi-scale Derivatives (I-616)

Philip A. Legg, Paul L. Rosin, David Marshall, James E. Morgan

P2-08-T

Multimodal Image Registration by Information Fusion at Feature Level (I-624)

Yang Li, Ragini Verma

P2-09-W

Accelerating Feature Based Registration Using the Johnson-Lindenstrauss Lemma (I-632)

Ayelet Akselrod-Ballin, Davi Bock, R. Clay Reid, Simon K. Warfield

Poster Session 2 - Image Registration

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Chair: T. Rohlfing

P2-10-M

Groupwise Registration and Atlas Construction of 4th-Order Tensor Fields using the R+ Riemannian Metric (I-640)

Angelos Barmoutis, Baba C. Vemuri

P2-13-M

Statistical Regularization of Deformation Fields for Atlas-Based Segmentation of Bone Scintigraphy Images (I-664)

Karl Sjöstrand, Mattias Ohlsson, Lars Edenbrandt

P2-16-M

A Non-rigid Registration Method for Serial microCT Mouse Hindlimb Images (I-688)

Jung W. Suh, Dustin Scheinost, Donald P. Dione, Lawrence W. Dobrucki, Albert J. Sinusas, Xenophon Papademetris

P2-19-M

A Combined Surface and Volumetric Registration (SAVOR) Framework to Study Cortical Biomarkers and Volumetric Imaging Data (I-713)

Eli Gibson, Ali R. Khan, Mirza Faisal Beg

Tuesday (22nd Sept)

Chair: J. Gee

P2-11-T

Closed-Form Jensen-Renyi Divergence for Mixture of Gaussians and Applications to Group-Wise Shape Registration (I-648)

Fei Wang, Tanveer Syeda-Mahmood, Baba Vemuri, David Beymer, Anand Rangarajan

P2-14-T

Graphical Models and Deformable Diffeomorphic Population Registration Using Global and Local Metrics (I-672)

Aristeidis Sotiras, Nikos Komodakis, Ben Glocker, Jean-François Deux, Nikos Paragios

P2-17-T

Non-rigid Image Registration with Uniform Gradient Spherical Patterns (I-696)

Shu Liao, Albert C. S. Chung

P2-20-T

Fast Tensor Image Morphing for Elastic Registration (I-721)

Pew-Thian Yap, Guorong Wu, Hongtu Zhu, Weili Lin, Dinggang Shen

Wednesday (23rd Sept)

Chair: L. Collins

P2-12-W

Attribute Vector Guided Groupwise Registration (I-656)

Qian Wang, Pew-Thian Yap, Guorong Wu, Dinggang Shen

P2-15-W

Efficient Large Deformation Registration via Geodesics on a Learned Manifold of Images (I-680)

Jihun Hamm, Christos Davatzikos, Ragini Verma

P2-18-W

Methods for Tractography-Driven Surface Registration of Brain Structures (I-705)

Aleksandar Petrović, Stephen M. Smith, Ricarda A. Menke, Mark Jenkinson

P2-21-W

DISCO: a Coherent Diffeomorphic Framework for Brain Registration under Exhaustive Sulcal Constraints (I-730)

Guillaume Auzias, Joan Glaunès, Olivier Colliot, Matthieu Perrot, Jean-François Mangin, Alain Trounev, Sylvain Baillet

Poster Session 2 - Image Registration

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Chair: T. Rohlfing

P2-22-M

Evaluation of Lobar Biomechanics during Respiration Using Image Registration (I-739)

Kai Ding, Youbing Yin, Kunlin Cao, Gary E. Christensen, Ching-Long Lin, Eric A. Hoffman, Joseph M. Reinhardt

P2-25-M

Multi-modal Registration Based Ultrasound Mosaicing (I-763)

Oliver Kutter, Wolfgang Wein, Nassir Navab

P2-28-M

MR to Ultrasound Image Registration for Guiding Prostate Biopsy and Interventions (I-787)

Yipeng Hu, Hashim Uddin Ahmed, Clare Allen, Doug Pendsé, Mahua Sahu, Mark Emberton, David Hawkes, Dean Barratt

P2-31-M

A General PDE-Framework for Registration of Contrast Enhanced Images (I-811)

Mehran Ebrahimi, Anne L. Martel

Tuesday (22nd Sept)

Chair: J. Gee

P2-23-T

Evaluation of 4D-CT Lung Registration (I-747)

Sven Kabus, Tobias Klinder, Keelin Murphy, Bram van Ginneken, Cristian Lorenz, Josien P. W. Pluim

P2-26-T

A Novel Method for Registration of US/MR of the Liver Based on the Analysis of US Dynamics (I-771)

Sergiy Milko, Eivind Lyche Melvær, Eigil Samset, Timor Kadir

P2-29-T

Combining Multiple True 3D Ultrasound Image Volumes through Re-registration and Rasterization (I-795)

Songbai Ji, David W. Roberts, Alex Hartov, Keith D. Paulsen

P2-32-T

Statistically Deformable 2D/3D Registration for Accurate Determination of Post-operative Cup Orientation from Single Standard X-ray Radiograph (I-820)

Guoyan Zheng

Wednesday (23rd Sept)

Chair: L. Collins

P2-24-W

Slipping Objects in Image Registration: Improved Motion Field Estimation with Direction-Dependent Regularization (I-755)

Alexander Schmidt-Richberg, Jan Ehrhardt, Rene Werner, Heinz Handels

P2-27-W

Alignment of Viewing-Angle Dependent Ultrasound Images (I-779)

Christian Wachinger, Nassir Navab

P2-30-W

Biomechanically Constrained Groupwise US to CT Registration of the Lumbar Spine (I-803)

Sean Gill, Parvin Mousavi, Gabor Fichtinger, Elvis Chen, Jonathan Boisvert, David Pichora, Purang Abolmaesumi

P2-33-W

A Novel Intensity Similarity Metric with Soft Spatial Constraint for a Deformable Image Registration Problem In Radiation Therapy (I-828)

Ali Khamene, Darko Zikic, Mamadou Diallo, Thomas Boettger, Eike Rietzel

Poster Session 2 - Image Registration

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Chair: L. Collins

P2-34-M

Intra-operative Multimodal Non-rigid Registration of the Liver for Navigated Tumor Ablation (I-837)

Haytham Elhawary, Sota Oguro, Kemal Tuncali, Paul R. Morrison, Paul B. Shyn, Servet Tatli, Stuart G. Silverman, Nobuhiko Hata

Poster Session 3 - Neuroimage Analysis: Structure and Function

13:30-15:15 (e-Teaser 13:30- 13:50)

Monday (21st Sept)

Chair: D. Alexander

Tuesday (22nd Sept)

Chair: C. Barillot

Wednesday (23rd Sept)

Chair: R. Whitaker

P3-01-M

A Novel Measure of Fractional Anisotropy Based on the Tensor Distribution Function (I-845)

Liang Zhan, Alex D. Leow, Siwei Zhu, Marina Barysheva, Arthur W. Toga, Katie L. McMahon, Greig I. de Zubicaray, Margaret J. Wright, Paul M. Thompson

P3-02-T

Iterative Co-linearity Filtering and Parameterization of Fiber Tracts in the Entire Cingulum (I-853)

Marius de Groot, Meike W. Vernooij, Stefan Klein, Alexander Leemans, Renske de Boer, Aad van der Lugt, Monique M. B. Breteler, Wiro J. Niessen

P3-03-W

Think Global, Act Local; Projectome Estimation with BlueMatter (I-861)

Anthony J. Sherbondy, Robert F. Dougherty, Rajagopal Ananthanarayanan, Dharmendra S. Modha, Brian A. Wandell

P3-04-M

Dual Tensor Atlas Generation Based on a Cohort of Coregistered non-HARDI Datasets (I-869)

Matthan Caan, Caroline Sage, Maaïke van der Graaf, Cornelis Grimbergen, Stefan Snaert, Lucas van Vliet, Frans Vos

P3-05-T

Estimating Orientation Distribution Functions with Probability Density Constraints and Spatial Regularity (I-877)

Alvina Goh, Christophe Lenglet, Paul M. Thompson, René Vidal

P3-06-W

Quantifying Brain Connectivity: A Comparative Tractography Study (I-886)

Ting-Shuo Yo, Alfred Anwander, Maxime Descoteaux, Pierre Fillard, Cyril Poupon, T. R. Knösche

P3-07-M

Two-Tensor Tractography Using a Constrained Filter (I-894)

James G. Malcolm, Martha E. Shenton, Yogesh Rath

P3-08-T

Characterization of Anatomic Fiber Bundles for Diffusion Tensor Image Analysis (I-903)

Rubén Cárdenes, Daniel Argibay-Quíñones, Emma Muñoz-Moreno, Marcos Martín-Fernández

P3-09-W

A Riemannian Framework for Orientation Distribution Function Computing (I-911)

Jian Cheng, Aurobrata Ghosh, Tianzi Jiang, Rachid Deriche

Poster Session 3 - Neuroimage Analysis: Structure and Function

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Monday (21st Sept)

Chair: D. Alexander

P3-10-M

Bias of Least Squares Approaches for Diffusion Tensor Estimation from Array Coils in DT-MRI (I-919)

Antonio Tristán-Vega, Carl-Fredrik Westin, Santiago Aja-Fernández

P3-13-M

Belief Propagation Based Segmentation of White Matter Tracts in DTI (I-943)

Pierre-Louis Bazin, John Bogovic, Daniel Reich, Jerry L. Prince, Dzung L. Pham

P3-16-M

Tensor-Based Analysis of Genetic Influences on Brain Integrity Using DTI in 100 Twins (I-967)

Agatha D. Lee, Natasha Leporé, Caroline Brun, Yi-Yu Chou, Marina Barysheva, Ming-Chang Chiang, Sarah K. Madsen, Greig I. de Zubicaray, Katie L. McMahon, Margaret J. Wright, Arthur W. Toga, Paul M. Thompson

P3-19-M

Adjusting the Neuroimaging Statistical Inferences for Nonstationarity (I-992)

Gholamreza Salimi-Khorshidi, Stephen M. Smith, Thomas E. Nichols

Tuesday (22nd Sept)

Chair: C. Barillot

P3-11-T

A Novel Global Tractography Algorithm Based on an Adaptive Spin Glass Model (I-927)

Pierre Fillard, Cyril Poupon, Jean-François Mangin

P3-14-T

Design and Construction of a Realistic DWI Phantom for Filtering Performance Assessment (I-951)

Antonio Tristán-Vega, Santiago Aja-Fernández

P3-17-T

Robust Extrapolation Scheme for Fast Estimation of 3D Ising Field Partition Functions: Application to Within-Subject fMRI Data Analysis (I-975)

Laurent Risser, Thomas Vincent, Philippe Ciuciu, Jérôme Idier

P3-20-T

Using Real-Time fMRI to Control a Dynamical System by Brain Activity Classification (I-1000)

Anders Eklund, Henrik Ohlsson, Mats Andersson, Joakim Rydell, Anders Ynnerman, Hans Knutsson

Wednesday (23rd Sept)

Chair: R. Whitaker

P3-12-W

Tractography-Based Parcellation of the Cortex Using a Spatially-Informed Dimension Reduction of the Connectivity Matrix (I-935)

Pauline Roca, Denis Rivière, Pamela Guevara, Cyril Poupon, Jean-François Mangin

P3-15-W

Statistical Detection of Longitudinal Changes between Apparent Diffusion Coefficient Images: Application to Multiple Sclerosis (I-959)

Hervé Boigontier, Vincent Noblet, Félix Renard, Fabrice Heitz, Lucien Rumbach, Jean-Paul Armspach

P3-18-W

Parcellation of fMRI Datasets with ICA and PLS-A Data Driven Approach (I-984)

Yongnan Ji, Pierre-Yves Hervé, Uwe Aickelin, Alain Pitiot

P3-21-W

Modeling Adaptation Effects in fMRI Analysis (I-1009)

Wanmei Ou, Tommi Raji, Fa-Hsuan Lin, Polina Golland, Matti Hämäläinen

Poster Session 3 - Neuroimage Analysis: Structure and Function

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Chair: R. Whitaker

P3-22-M

A Cluster Overlap Measure for Comparison of Activations in fMRI Studies (I-1018)

Guillermo A. Cecchi, Rahul Garg, A. Ravishankar Rao

Poster Session 4 - Shape Modelling and Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: T. Cootes

Tuesday (22nd Sept)

Chair: M. Styner

Wednesday (23rd Sept)

Chair: R. Larsen

P4-01-M

Building Shape Models from Lousy Data (II-1)

Marcel Lüthi, Thomas Albrecht, Thomas Vetter

P4-02-T

Statistical Location Model for Abdominal Organ Localization (II-9)

Jianhua Yao, Ronald M. Summers

P4-03-W

Volumetric Shape Model for Oriented Tubular Structure from DTI Data (II-18)

Hon Pong Ho, Xenophon Papademetris, Fei Wang, Hilary P. Blumberg, Lawrence H. Staib

P4-04-M

A Generic Probabilistic Active Shape Model for Organ Segmentation (II-26)

Andreas Wimmer, Grzegorz Soza, Joachim Hornegger

P4-05-T

Organ Segmentation with Level Sets Using Local Shape and Appearance Priors (II-34)

Timo Kohlberger, M. Gökhan Uzunbaş, Christopher Almino, Timor Kadir, Daniel O. Slosman, Gareth Funka-Lea

P4-06-W

Liver Segmentation Using Automatically Defined Patient Specific B-Spline Surface Models (II-43)

Yi Song, Andy J. Bulpitt, Ken W. Brodlie

P4-07-M

Airway Tree Extraction with Locally Optimal Paths (II-51)

Pechin Lo, Jon Sparring, Jesper Johannes Holst Pedersen, Marleen de Bruijne

P4-08-T

A Deformable Surface Model for Vascular Segmentation (II-59)

Max W. K. Law, Albert C. S. Chung

P4-09-W

A Deformation Tracking Approach to 4D Coronary Artery Tree Reconstruction (II-68)

Yanghai Tsin, Klaus J. Kirchberg, Guenter Lauritsch, Chenyang Xu

Poster Session 4 - Shape Modelling and Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: T. Cootes

P4-10-M

Automatic Extraction of Mandibular Nerve and Bone from Cone-Beam CT Data (II-76)

Dagmar Kainmueller, Hans Lamecker, Heiko Seim, Max Zinser, Stefan Zachow

P4-13-M

A Shape Relationship Descriptor for Radiation Therapy Planning (II-100)

Michael Kazhdan, Patricio Simari, Todd McNutt, Binbin Wu, Robert Jacques, Ming Chuang, Russell Taylor

P4-16-M

Topological Correction of Brain Surface Meshes Using Spherical Harmonics (II-125)

Rachel Aine Yotter, Robert Dahnke, Christian Gaser

P4-19-M

Shape Modelling for Tract Selection (II-150)

Jonathan D. Clayden, Martin D. King, Chris A. Clark

P4-22-M

Setting Priors and Enforcing Constraints on Matches for Nonlinear Registration of Meshes (II-175)

Benoît Combès, Sylvain Prima

Tuesday (22nd Sept)

Chair: M. Styner

P4-11-T

Conditional Variability of Statistical Shape Models Based on Surrogate Variables (II-84)

Rémi Blanc, Mauricio Reyes, Christof Seiler, Gábor Székely

P4-14-T

Feature-Based Morphometry (II-109)

Matthew Toews, William M. Wells III, D. Louis Collins, Tal Arbel

P4-17-T

Teichmüller Shape Space Theory and Its Application to Brain Morphometry (II-133)

Yalin Wang, Wei Dai, Xianfeng Gu, Tony F. Chan, Shing-Tung Yau, Arthur W. Toga, Paul M. Thompson

P4-20-T

Topological Characterization of Signal in Brain Images Using Min-Max Diagrams (II-158)

Moo K. Chung, Vikas Singh, Peter T. Kim, Kim M. Dalton, Richard J. Davidson

P4-23-T

Parametric Representation of Cortical Surface Folding Based on Polynomials (II-184)

Tuo Zhang, Lei Guo, Gang Li, Jingxin Nie, Tianming Liu

Wednesday (23rd Sept)

Chair: R. Larsen

P4-12-W

Surface/Volume-Based Articulated 3D Spine Inference through Markov Random Fields (II-92)

Samuel Kadoury, Nikos Paragios

P4-15-W

Constructing a Dictionary of Human Brain Folding Patterns (II-117)

Zhong Yi Sun, Matthieu Perrot, Alan Tucholka, Denis Rivière, Jean-François Mangin

P4-18-W

A Tract-Specific Framework for White Matter Morphometry Combining Macroscopic and Microscopic Tract Features (II-141)

Hui Zhang, Suyash P. Awate, Sandhitsu R. Das, John H. Woo, Elias R. Melhem, James C. Gee, Paul A. Yushkevich

P4-21-W

Particle Based Shape Regression of Open Surfaces with Applications to Developmental Neuroimaging (II-167)

Manasi Datar, Joshua Cates, P. Thomas Fletcher, Sylvain Gouttard, Guido Gerig, Ross Whitaker

P4-24-W

Intrinsic Regression Models for Manifold-Valued Data (II-192)

Xiaoyan Shi, Martin Styner, Jeffrey Lieberman, Joseph G. Ibrahim, Weili Lin, Hongtu Zhu

Poster Session 4 - Shape Modelling and Analysis

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Chair: T. Cootes

P4-25-M

Gender Differences in Cerebral Cortical Folding: Multivariate Complexity-Shape Analysis with Insights into Handling Brain-Volume Differences (II-200)

Suyash P. Awate, Paul Yushkevich, Daniel Licht, James C. Gee

P4-28-M

Subject-Matched Templates for Spatial Normalization (II-224)

Torsten Rohlfing, Edith V. Sullivan, Adolf Pfefferbaum

Tuesday (22nd Sept)

Chair: M. Styner

P4-26-T

Cortical Shape Analysis in the Laplace-Beltrami Feature Space (II-208)

Yonggang Shi, Ivo Dinov, Arthur W. Toga

P4-29-T

Mapping Growth Patterns and Genetic Influences on Early Brain Development in Twins (II-232)

Yasheng Chen, Hongtu Zhu, Dinggang Shen, Hongyu An, John Gilmore, Weili Lin

Wednesday (23rd Sept)

Chair: R. Larsen

P4-27-W

Shape Analysis of Human Brain Interhemispheric Fissure Bending in MRI (II-216)

Lu Zhao, Jarmo Hietala, Jussi Tohka

P4-30-W

Tensor-Based Morphometry with Mappings Parameterized by Stationary Velocity Fields in Alzheimer's Disease Neuroimaging Initiative (II-240)

Matías Nicolás Bossa, Ernesto Zacur, Salvador Olmos

Poster Session 5 - Motion Analysis, Physical Based Modelling and Image Reconstruction

13:30 - 15:15

(e-Teaser 13:30- 13:50)

Monday (21st Sept)

Chair: M. Sermesant

P5-01-M

High-Quality Model Generation for Finite Element Simulation of Tissue Deformation (II-248)

Orcun Goksel, Septimiu E. Salcudean

Tuesday (22nd Sept)

Chair: P. Shi

P5-02-T

Biomechanically-Constrained 4D Estimation of Myocardial Motion (II-257)

Hari Sundar, Christos Davatzikos, George Biros

Wednesday (23rd Sept)

Chair: Y. Sato

P5-03-W

Predictive Simulation of Bidirectional Glenn Shunt using a Hybrid Blood Vessel Model (II-266)

Hao Li, Wee Kheng Leow, Ing-Sh Chiu

Poster Session 5 - Motion Analysis, Physical Based Modelling and Image Reconstruction 13:30 - 15:15
(e-Teaser 13:30- 13:50)

Monday (21st Sept)

Chair: M. Sermesant

P5-04-M

Surgical Planning and Patient-Specific Biomechanical Simulation for Tracheal Endoprostheses Interventions (II-275)

Miguel A. González Ballester, Amaya Pérez del Palomar, José Luis López Villalobos, Laura Lara Rodríguez, Olfa Trabelsi, Frederic Pérez, Ángel Ginel Cañamaque, Emilia Barrot Cortés, Francisco Rodríguez Panadero, Manuel Doblaré Castellano, Javier Herrero Jover

P5-07-M

Real-Time Prediction of Brain Shift Using Nonlinear Finite Element Algorithms (II-300)

Grand Roman Joldes, Adam Wittek, Mathieu Couton, Simon K. Warfield, Karol Miller

P5-10-M

A Hybrid 1D and 3D Approach to Hemodynamics Modelling for a Patient-Specific Cerebral Vasculature and Aneurysm (II-323)

Harvey Ho, Gregory Sands, Holger Schmid, Kumar Mithraratne, Gordon Mallinson, Peter Hunter

P5-13-M

Modeling Respiratory Motion for Cancer Radiation Therapy Based on Patient-Specific 4DCT Data (II-348)

Jaesung Eom, Chengyu Shi, Xie George Xu, Suvranu De

Tuesday (22nd Sept)

Chair: P. Shi

P5-05-T

Mesh Generation from 3D Multi-material Images (II-283)

Dobrina Boltcheva, Mariette Yvinec, Jean-Daniel Boissonnat

P5-08-T

Model-Based Estimation of Ventricular Deformation in the Cat Brain (II-308)

Fenghong Liu, S. Scott Lollis, Songbai Ji, Keith D. Paulsen, Alexander Hartov, David W. Roberts

P5-11-T

Incompressible Cardiac Motion Estimation of the Left Ventricle Using Tagged MR Images (II-331)

Xiaofeng Liu, Khaled Z. Abd-Elmoniem, Jerry L. Prince

P5-14-T

Correlating Chest Surface Motion to Motion of the Liver Using ϵ -SVR - a Porcine Study (II-356)

Floris Ernst, Volker Martens, Stefan Schlichting, Armin Beširević, Markus Kleemann, Christoph Koch, Dirk Petersen, Achim Schweikard

Wednesday (23rd Sept)

Chair: Y. Sato

P5-06-W

Interactive Simulation of Flexible Needle Insertions Based on Constraint Models (II-291)

Christian Duriez, Christophe Guébert, Maud Marchal, Stephane Cotin, Laurent Grisoni

P5-09-W

Contact Studies between Total Knee Replacement Components Developed Using Explicit Finite Elements Analysis (II-316)

Lucian Gheorghe Gruionu, Gabriel Gruionu, Stefan Pastrama, Nicolae Iliescu, Taina Avramescu

P5-12-W

Vibro-Elastography for Visualization of the Prostate Region: Method Evaluation (II-339)

Seyedeh Sara Mahdavi, Mehdi Moradi, Xu Wen, William J. Morris, Septimiu E. Salcudean

P5-15-W

Respiratory Motion Estimation from Cone-Beam Projections Using a Prior Model (II-365)

Jef Vandemeulebroucke, Jan Kybic, Patrick Clarysse, David Sarrut

Poster Session 5 - Motion Analysis, Physical Based Modelling and Image Reconstruction 13:30 - 15:15

(e-Teaser 13:30- 13:50)

Monday (21st Sept)

Chair: M. Sermesant

P5-16-M

Heart Motion Abnormality Detection via an Information Measure and Bayesian Filtering (II-373)

Kumaradevan Punithakumar, Shuo Li, Ismail Ben Ayed, Ian Ross, Ali Islam, Jaron Chong

P5-19-M

Spatio-temporal Reconstruction of dPET Data Using Complex Wavelet Regularisation (II-398)

Andrew McLennan, Michael Brady

P5-22-M

Multiple Q-Shell ODF Reconstruction in Q-Ball Imaging (II-423)

Iman Aganj, Christophe Lenglet, Guillermo Sapiro, Essa Yacoub, Kamil Ugurbil, Noam Harel

Tuesday (22nd Sept)

Chair: P. Shi

P5-17-T

Automatic Image-Based Cardiac and Respiratory Cycle Synchronization and Gating of Image Sequences (II-381)

Hari Sundar, Ali Khamene, Liron Yatziv, Chenyang Xu

P5-20-T

Evaluation of q-Space Sampling Strategies for the Diffusion Magnetic Resonance Imaging (II-406)

Haz-Edine Assemlal, David Tschumperlé, Luc Brun

Wednesday (23rd Sept)

Chair: Y. Sato

P5-18-W

Dynamic Cone Beam Reconstruction Using a New Level Set Formulation (II-389)

Andreas Keil, Jakob Vogel, Günter Lauritsch, Nassir Navab

P5-21-W

On the Blurring of the Funk-Radon Transform in Q-Ball Imaging (II-415)

Antonio Tristán-Vega, Santiago Aja-Fernández, Carl-Fredrik Westin

Poster Session 6 - Neuro, Cell and Multiscale Image Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: B. Whitcher

P6-01-M

Lossless Online Ensemble Learning (LOEL) and Its Application to Subcortical Segmentation (II-432)

Jonathan H. Morra, Zhuowen Tu, Arthur W. Toga, Paul M. Thompson

Tuesday (22nd Sept)

Chair: J. Hornegger

P6-02-T

Improved Maximum a Posteriori Cortical Segmentation by Iterative Relaxation of Priors (II-441)

Manuel Jorge Cardoso, Matthew J. Clarkson, Gerard R. Ridgway, Marc Modat, Nick C. Fox, Sebastien Ourselin

Wednesday (23rd Sept)

Chair: A. Todd-Pokropek

P6-03-W

Anatomically Informed Bayesian Model Selection for fMRI Group Data Analysis (II-450)

Merlin Keller, Marc Lavielle, Matthieu Perrot, Alexis Roche

Poster Session 6 - Neuro, Cell and Multiscale Image Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: B. Whitcher

P6-04-M

A Computational Model of Cerebral Cortex Folding (II-458)

Jingxin Nie, Gang Li, Lei Guo, Tianming Liu

P6-07-M

Brain Connectivity Using Geodesics in HARDI (II-482)

Mickaël Péchaud, Maxime Descoteaux, Renaud Keriven

P6-10-M

Extending Genetic Linkage Analysis to Diffusion Tensor Images to Map Single Gene Effects on Brain Fiber Architecture (II-506)

Ming-Chang Chiang, Christina Avedissian, Marina Barysheva, Arthur W. Toga, Katie L. McMahon, Greig I. de Zubicaray, Margaret J. Wright, Paul M. Thompson

P6-13-M

Tumor Invasion Margin on the Riemannian Space of Brain Fibers (II-531)

Dana Cobzas, Parisa Mosayebi, Albert Murtha, Martin Jagersand

Tuesday (22nd Sept)

Chair: J. Hornegger

P6-05-T

Tensor-Based Morphometry of Fibrous Structures with Application to Human Brain White Matter (II-466)

Hui Zhang, Paul A. Yushkevich, Daniel Rueckert, James C. Gee

P6-08-T

Functional Segmentation of fMRI Data Using Adaptive Non-negative Sparse PCA (ANSPCA) (II-490)

Bernard Ng, Rafeef Abugharbieh, Martin J. McKeown

P6-11-T

Vascular Territory Image Analysis Using Vessel Encoded Arterial Spin Labeling (II-514)

Michael A. Chappell, Thomas W. Okell, Peter Jezzard, Mark W. Woolrich

P6-14-T

A Conditional Random Field Approach for Coupling Local Registration with Robust Tissue and Structure Segmentation (II-540)

Benoit Scherrer, Florence Forbes, Michel Dojat

Wednesday (23rd Sept)

Chair: A. Todd-Pokropek

P6-06-W

A Fuzzy Region-Based Hidden Markov Model for Partial-Volume Classification in Brain MRI (II-474)

Albert Huang, Rafeef Abugharbieh, Roger Tam

P6-09-W

Genetics of Anisotropy Asymmetry: Registration and Sample Size Effects (II-498)

Neda Jahanshad, Agatha D. Lee, Natasha Leporé, Yi-Yu Chou, Caroline C. Brun, Marina Barysheva, Arthur W. Toga, Katie L. McMahon, Greig I. de Zubicaray, Margaret J. Wright, Paul M. Thompson

P6-12-W

Predicting MGMT Methylation Status of Glioblastomas from MRI Texture (II-522)

Ilya Levner, Sylvia Drabycz, Gloria Roldan, Paula De Robles, J. Gregory Cairncross, Ross Mitchell

P6-15-W

Robust Atlas-Based Brain Segmentation Using Multi-structure Confidence-Weighted Registration (II-549)

Ali R. Khan, Moo K. Chung, Mirza Faisal Beg

Poster Session 6 - Neuro, Cell and Multiscale Image Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: B. Whitcher

P6-16-M

Discriminative, Semantic Segmentation of Brain Tissue in MR Images (II-558)

Zhao Yi, Antonio Criminisi, Jamie Shotton, Andrew Blake

P6-19-M

Multiple Sclerosis Lesion Segmentation Using an Automatic Multimodal Graph Cuts (II-584)

Daniel García-Lorenzo, Jeremy Lecoeur, Douglas L. Arnold, D. Louis Collins, Christian Barillot

P6-22-M

Cell Segmentation Using Front Vector Flow Guided Active Contours (II-609)

Fuhai Li, Xiaobo Zhou, Hong Zhao, Stephen T. C. Wong

P6-25-M

Graph-Based Pancreatic Islet Segmentation for Early Type 2 Diabetes Mellitus on Histopathological Tissue (II-633)

Xenofon Floros, Thomas J. Fuchs, Markus P. Rechsteiner, Giatgen Spinass, Holger Moch, Joachim M. Buhmann

Tuesday (22nd Sept)

Chair: J. Hornegger

P6-17-T

Use of Simulated Atrophy for Performance Analysis of Brain Atrophy Estimation Approaches (II-566)

Swati Sharma, Vincent Noblet, François Rousseau, Fabrice Heitz, Lucien Rumbach, Jean-Paul Armspach

P6-20-T

Towards Accurate, Automatic Segmentation of the Hippocampus and Amygdala from MRI (II-592)

D. Louis Collins, Jens C. Pruessner

P6-23-T

Segmentation and Classification of Cell Cycle Phases in Fluorescence Imaging (II-617)

Ilker Ersoy, Filiz Bunyak, Vadim Chagin, M. Christina Cardoso, Kannappan Palaniappan

P6-26-T

Detection of Spatially Correlated Objects in 3D Images Using Appearance Models and Coupled Active Contours (II-641)

Kishore Mosaliganti, Arnaud Gelas, Alexandre Gouaillard, Ramil Noche, Nikolaus Obholzer, Sean Megason

Wednesday (23rd Sept)

Chair: A. Todd-Pokropek

P6-18-W

Fast and Robust 3-D MRI Brain Structure Segmentation (II-575)

Michael Wels, Yefeng Zheng, Gustavo Carneiro, Martin Huber, Joachim Hornegger, Dorin Comaniciu

P6-21-W

An Object-Based Method for Rician Noise Estimation in MR Images (II-601)

Pierrick Coupé, José V. Manjón, Elias Gedamu, Douglas Arnold, Montserrat Robles, D. Louis Collins

P6-24-W

Steerable Features for Statistical 3D Dendrite Detection (II-625)

Germán González, François Aguet, François Fleuret, Michael Unser, Pascal Fua

P6-27-W

Intra-retinal Layer Segmentation in Optical Coherence Tomography Using an Active Contour Approach (II-649)

Azadeh Yazdanpanah, Ghassan Hamarneh, Benjamin Smith, Marinko Sarunic

Poster Session 6 - Neuro, Cell and Multiscale Image Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: B. Whitcher

P6-28-M

Mapping Tissue Optical Attenuation to Identify Cancer Using Optical Coherence Tomography (II-657)

Robert A. McLaughlin, Loretta Scolaro, Peter Robbins, Christobel Saunders, Steven L. Jacques, David D. Sampson

Tuesday (22nd Sept)

Chair: J. Hornegger

P6-29-T

Analysis of MR Images of Mice in Preclinical Treatment Monitoring of Polycystic Kidney Disease (II-665)

Stathis Hadjidemetriou, Wilfried Reichardt, Martin Buechert, Juergen Hennig, Dominik von Elverfeldt

Wednesday (23rd Sept)

Chair: A. Todd-Pokropek

P6-30-W

Actin Filament Tracking Based on Particle Filters and Stretching Open Active Contour Models (II-673)

Hongsheng Li, Tian Shen, Dimitrios Vavylonis, Xiaolei Huang

Poster Session 7 - Image Analysis and Computer Aided Diagnosis

13:30 - 15:15 (e-Teaser 13:30- 13:50)

Monday (21st Sept)

Chair: B. van Ginneken

P7-01-M

Toward Early Diagnosis of Lung Cancer (II-682)

Ayman El-Baz, Georgy Gimel'farb, Robert Falk, Mohamed Abou El-Ghar, Sabrina Rainey, David Heredia, Teresa Shaffer

Tuesday (22nd Sept)

Chair: E. Claridge

P7-02-T

Lung Extraction, Lobe Segmentation and Hierarchical Region Assessment for Quantitative Analysis on High Resolution Computed Tomography Images (II-690)

James C. Ross, Raúl San José Estépar, Alejandro Díaz, Carl-Fredrik Westin, Ron Kikinis, Edwin K. Silverman, George R. Washko

Wednesday (23rd Sept)

Chair: M. de Bruijne

P7-03-W

Learning COPD Sensitive Filters in Pulmonary CT (II-699)

Lauge Sørensen, Pechin Lo, Haseem Ashraf, Jon Sparring, Mads Nielsen, Marleen de Bruijne

P7-04-M

Automated Anatomical Labeling of Bronchial Branches Extracted from CT Datasets Based on Machine Learning and Combination Optimization and Its Application to Bronchoscope Guidance (II-707)

Kensaku Mori, Shunsuke Ota, Daisuke Deguchi, Takayuki Kitasaka, Yasuhito Suenaga, Shingo Iwano, Yosihori Hasegawa, Hirotsugu Takabatake, Masaki Mori, Hiroshi Natori

P7-05-T

Multi-level Ground Glass Nodule Detection and Segmentation in CT Lung Images (II-715)

Yimo Tao, Le Lu, Maneesh Dewan, Albert Y. Chen, Jason Corso, Jianhua Xuan, Marcos Salganicoff, Arun Krishnan

P7-06-W

Global and Local Multi-valued Dissimilarity-Based Classification: Application to Computer-Aided Detection of Tuberculosis (II-724)

Yulia Arzhaeva, Laurens Hogeweg, Pim A. de Jong, Max A. Viergever, Bram van Ginneken

Poster Session 7 - Image Analysis and Computer Aided Diagnosis

13:30 - 15:15 (e-Teaser 13:30- 13:50)

Monday (21st Sept)

Chair: B. van Ginneken

P7-07-M

Noninvasive Imaging of Electrophysiological Substrates in Post Myocardial Infarction (II-732)

Linwei Wang, Heye Zhang, Ken C. L. Wong, Huaifeng Liu, Pengcheng Shi

P7-10-M

Septal Flash Assessment on CRT Candidates Based on Statistical Atlases of Motion (II-759)

Nicolas Duchateau, Mathieu De Craene, Etel Silva, Marta Sitges, Bart H. Bijnens, Alejandro F. Frangi

P7-13-M

MKL for Robust Multi-modality AD Classification (II-786)

Chris Hinrichs, Vikas Singh, Guofan Xu, Sterling Johnson

P7-16-M

Automated Segmentation of the Femur and Pelvis from 3D CT Data of Diseased Hip Using Hierarchical Statistical Shape Model of Joint Structure (II-811)

Futoshi Yokota, Toshiyuki Okada, Masaki Takao, Nobuhiko Sugano, Yukio Tada, Yoshinobu Sato

Tuesday (22nd Sept)

Chair: E. Claridge

P7-08-T

Unsupervised Inline Analysis of Cardiac Perfusion MRI (II-741)

Hui Xue, Sven Zuehlsdorff, Peter Kellman, Andrew Arai, Sonia NIELLES-Vallespin, Christophe Chefdhotel, Christine H. Lorenz, Jens Guehring

P7-11-T

Personalized Modeling and Assessment of the Aortic-Mitral Coupling from 4D TEE and CT (II-767)

Razvan Ioan Ionasec, Ingmar Voigt, Bogdan Georgescu, Yang Wang, Helene Houle, Joachim Hornegger, Nassir Navab, Dorin Comaniciu

P7-14-T

A New Approach for Creating Customizable Cytoarchitectonic Probabilistic Maps without a Template (II-795)

Amir M. Tahmasebi, Purang Abolmaesumi, Xiujuan Geng, Patricia Morosan, Katrin Amunts, Gary E. Christensen, Ingrid S. Johnsrude

P7-17-T

Computer-Aided Assessment of Anomalies in the Scoliotic Spine in 3-D MRI Images (II-819)

Florian Jäger, Joachim Hornegger, Siegfried Schwab, Rolf Janka

Wednesday (23rd Sept)

Chair: M. de Bruijne

P7-09-W

Pattern Recognition of Abnormal Left Ventricle Wall Motion in Cardiac MR (II-750)

Yingli Lu, Perry Radau, Kim Connelly, Alexander Dick, Graham Wright

P7-12-W

A New 3-D Automated Computational Method to Evaluate In-Stent Neointimal Hyperplasia in In-Vivo Intravascular Optical Coherence Tomography Pullbacks (II-776)

Serhan Gurmeric, Gozde Gul Isguder, Stéphane Carlier, Gozde Unal

P7-15-W

A Computer-Aided Diagnosis System of Nuclear Cataract via Ranking (II-803)

Wei Huang, Huiqi Li, Kap Luk Chan, Joo Hwee Lim, Jiang Liu, Tien Yin Wong

P7-18-W

Optimal Graph Search Segmentation Using Arc-Weighted Graph for Simultaneous Surface Detection of Bladder and Prostate (II-827)

Qi Song, Xiaodong Wu, Yunlong Liu, Mark Smith, John Buatti, Milan Sonka

Poster Session 7 - Image Analysis and Computer Aided Diagnosis

13:30 - 15:15 (e-Teaser 13:30- 13:50)

Monday (21st Sept)

Chair: B. van Ginneken

P7-19-M

Automated Calibration for Computerized Analysis of Prostate Lesions Using Pharmacokinetic Magnetic Resonance Images (II-836)

Pieter C. Vos, Thomas Hambrock, Jelle O. Barenstz, Henkjan J. Huisman

P7-22-M

Weakly Supervised Group-Wise Model Learning Based on Discrete Optimization (II-860)

René Donner, Horst Wildenauer, Horst Bischof, Georg Langs

Tuesday (22nd Sept)

Chair: E. Claridge

P7-20-T

Spectral Embedding Based Probabilistic Boosting Tree (ScEPTre): Classifying High Dimensional Heterogeneous Biomedical Data (II-844)

Pallavi Tiwari, Mark Rosen, Galen Reed, John Kurhanewicz, Anant Madabhushi

Wednesday (23rd Sept)

Chair: M. de Bruijne

P7-21-W

Automatic Correction of Intensity Nonuniformity from Sparseness of Gradient Distribution in Medical Images (II-852)

Yuanjie Zheng, Murray Grossman, Suyash P. Awate, James C. Gee

Poster Session 8 - Image Segmentation and Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: G. Menegaz

P8-01-M

ECOC Random Fields for Lumen Segmentation in Radial Artery IVUS Sequences (II-869)

Francesco Ciompi, Oriol Pujol, Eduard Fernández-Nofrerías, Josepa Mauri, Petia Radeva

Tuesday (22nd Sept)

Chair: A. Chung

P8-02-T

Dynamic Layer Separation for Coronary DSA and Enhancement in Fluoroscopic Sequences (II-877)

Ying Zhu, Simone Prummer, Peng Wang, Terrence Chen, Dorin Comaniciu, Martin Ostermeier

Wednesday (23rd Sept)

Chair: A. Khamene

P8-03-W

An Inverse Scattering Algorithm for the Segmentation of the Luminal Border on Intravascular Ultrasound Data (II-885)

E. Gerardo Mendizabal-Ruiz, George Biros, Ioannis A. Kakadiaris

Poster Session 8 - Image Segmentation and Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: G. Menegaz

P8-04-M

Image-Driven Cardiac Left Ventricle Segmentation for the Evaluation of Multiview Fused Real-Time 3-Dimensional Echocardiography Images (II-893)

Kashif Rajpoot, J. Alison Noble, Vicente Grau, Cezary Szmigielski, Harald Becher

P8-07-M

Left Ventricle Segmentation Using Diffusion Wavelets and Boosting (II-919)

Salma Essafi, Georg Langs, Nikos Paragios

P8-10-M

A Novel 3D Joint Markov-Gibbs Model for Extracting Blood Vessels from PC-MRA Images (II-943)

Ayman El-Baz, Georgy Gimel'farb, Robert Falk, Mohamed Abou El-Ghar, Vedant Kumar, David Heredia

P8-13-M

An Interactive Geometric Technique for Upper and Lower Teeth Segmentation (II-968)

Binh Huy Le, Zhigang Deng, James Xia, Yu-Bing Chang, Xiaobo Zhou

Tuesday (22nd Sept)

Chair: A. Chung

P8-05-T

Left Ventricle Segmentation via Graph Cut Distribution Matching (II-901)

Ismail Ben Ayed, Kumaradevan Punithakumar, Shuo Li, Ali Islam, Jaron Chong

P8-08-T

3D Cardiac Segmentation Using Temporal Correlation of Radio Frequency Ultrasound Data (II-927)

Maartje M. Nillesen, Richard G. P. Lopata, Henkjan J. Huisman, Johan M. Thijssen, Livia Kapusta, Chris L. de Korte

P8-11-T

Atlas-Based Improved Prediction of Magnetic Field Inhomogeneity for Distortion Correction of EPI Data (II-951)

Clare Poynton, Mark Jenkinson, William Wells III

P8-14-T

Enforcing Monotonic Temporal Evolution in Dry Eye Images (II-976)

Tamir Yedidya, Peter Carr, Richard Hartley, Jean-Pierre Guillon

Wednesday (23rd Sept)

Chair: A. Khamene

P8-06-W

Combining Registration and Minimum Surfaces for the Segmentation of the Left Ventricle in Cardiac Cine MR Images (II-910)

Marie-Pierre Jolly, Hui Xue, Leo Grady, Jens Guehring

P8-09-W

Improved Modelling of Ultrasound Contrast Agent Diminution for Blood Perfusion Analysis (II-935)

Christian Kier, Karsten Meyer-Wiethe, Günter Seidel, Alfred Mertins

P8-12-W

3D Prostate Segmentation in Ultrasound Images Based on Tapered and Deformed Ellipsoids (II-960)

Seyedeh Sara Mahdavi, William J. Morris, Ingrid Spadinger, Nick Chng, Orcun Goksel, Septimiu E. Salcudean

P8-15-W

Ultrafast Localization of the Optic Disc Using Dimensionality Reduction of the Search Space (II-985)

Ahmed Essam Mahfouz, Ahmed S. Fahmy

Poster Session 8 - Image Segmentation and Analysis

13:30 - 15:15 (e-Teaser 14:00- 14:20)

Monday (21st Sept)

Chair: G. Menegaz

P8-16-M

Using Frankenstein's Creature Paradigm to Build a Patient Specific Atlas (II-993)

Olivier Commowick, Simon K. Warfield, Grégoire Malandain

P8-19-M

Segmentation of Lumbar Vertebrae Using Part-Based Graphs and Active Appearance Models (II-1017)

Martin G. Roberts, Tim F. Cootes, Elisa Pacheco, Teik Oh, Judith E. Adams

P8-22-M

3D Multi-branch Tubular Surface and Centerline Extraction with 4D Iterative Key Points (II-1042)

Hua Li, Anthony Yezzi, Laurent Cohen

P8-25-M

Model Completion via Deformation Cloning Based on an Explicit Global Deformation Model (II-1067)

Qiong Han, Stephen E. Strup, Melody C. Carswell, Duncan Clarke, Williams B. Seales

P8-28-M

Tissue Tracking in Thermo-physiological Imagery through Spatio-temporal Smoothing (II-1092)

Yan Zhou, Panagiotis Tsiamyrtzis, Ioannis Pavlidis

Tuesday (22nd Sept)

Chair: A. Chung

P8-17-T

Atlas-Based Automated Segmentation of Spleen and Liver Using Adaptive Enhancement Estimation (II-1001)

Marius George Linguraru, Jesse K. Sandberg, Zhixi Li, John A. Pura, Ronald M. Summers

P8-20-T

Utero-Fetal Unit and Pregnant Woman Modeling Using a Computer Graphics Approach for Dosimetry Studies (II-1025)

J r mie Anquez, Tamy Boubekur, Lazar Bibin, Elsa Angelini, Isabelle Bloch

P8-23-T

Multimodal Prior Appearance Models Based on Regional Clustering of Intensity Profiles (II-1051)

Fran ois Chung, Herv  Delingette

P8-26-T

Supervised Nonparametric Image Parcellation (II-1075)

Mert R. Sabuncu, B.T. Thomas Yeo, Koen Van Leemput, Bruce Fischl, Polina Golland

P8-29-T

Depth Data Improves Skin Lesion Segmentation (II-1100)

Xiang Li, Ben Aldridge, Lucia Ballerini, Robert Fisher, Jonathan Rees

Wednesday (23rd Sept)

Chair: A. Khamene

P8-18-W

A Two-Level Approach towards Semantic Colon Segmentation: Removing Extra-Colonic Findings (II-1009)

Le Lu, Matthias Wolf, Jianming Liang, Murat Dundar, Jinbo Bi, Marcos Salganicoff

P8-21-W

Cross Modality Deformable Segmentation Using Hierarchical Clustering and Learning (II-1033)

Yiqiang Zhan, Maneesh Dewan, Xiang Sean Zhou

P8-24-W

3D Medical Image Segmentation by Multiple-Surface Active Volume Models (II-1059)

Tian Shen, Xiaolei Huang

P8-27-W

Thermal Vision for Sleep Apnea Monitoring (II-1084)

Jin Fei, Ioannis Pavlidis, Jayasimha Murthy

P8-30-W

A Fully Automatic Random Walker Segmentation for Skin Lesions in a Supervised Setting (II-1108)

Paul Wighton, Maryam Sadeghi, Tim K. Lee, M. Stella Atkins