Dirk Vandermeulen

List of Publications by Year in Descending Order

140 papers	4,254 citations	32 h-index	63 g-index
156 ext. papers	4,977 ext. citations	4.4 avg, IF	5 L-index

#	Paper	IF	Citations
140	Bloodstain impact pattern Area of Origin estimation using least-squares angles: A HemoVision validation study.. *Forensic Science International*, **2022**, 333, 111211	2.6	
139	Three-dimensional image volumes from two-dimensional digitally reconstructed radiographs: A deep learning approach in lower limb CT scans. *Medical Physics*, **2021**, 48, 2448-2457	4.4	2
138	Automated landmarking for palatal shape analysis using geometric deep learning. *Orthodontics and Craniofacial Research*, **2021**,	3	1
137	Theoretical analysis and experimental validation of volume bias of soft Dice optimized segmentation maps in the context of inherent uncertainty. *Medical Image Analysis*, **2021**, 67, 101833	15.4	7
136	Towards fully automated third molar development staging in panoramic radiographs. *International Journal of Legal Medicine*, **2020**, 134, 1831-1841	3.1	17
135	Detection of Vertebral Fractures in CT Using 3D Convolutional Neural Networks. *Lecture Notes in Computer Science*, **2020**, 3-14	0.9	8
134	Effect of Lower Third Molar Segmentations on Automated Tooth Development Staging using a Convolutional Neural Network. *Journal of Forensic Sciences*, **2020**, 65, 481-486	1.8	16
133	Facial recognition from DNA using face-to-DNA classifiers. *Nature Communications*, **2019**, 10, 2557	17.4	19
132	Cascaded statistical shape model based segmentation of the full lower limb in CT. *Computer Methods in Biomechanics and Biomedical Engineering*, **2019**, 22, 644-657	2.1	33
131	Genome-wide mapping of global-to-local genetic effects on human facial shape. *Nature Genetics*, **2018**, 50, 414-423	36.3	105
130	Human Centric Recognition of 3D Ear Models. *International Journal of Computational Intelligence Systems*, **2016**, 9, 296	3.4	1
129	Automatic Detection of Myocardial Infarction Through a Global Shape Feature Based on Local Statistical Modeling. *Lecture Notes in Computer Science*, **2016**, 208-216	0.9	1
128	HemoVision: An automated and virtual approach to bloodstain pattern analysis. *Forensic Science International*, **2015**, 251, 116-23	2.6	13
127	3-dimensional analysis of regenerative endodontic treatment outcome. *Journal of Endodontics*, **2015**, 41, 317-24	4.7	45
126	An investigation of matching symmetry in the human pinnae with possible implications for 3D ear recognition and sound localization. *Journal of Anatomy*, **2015**, 226, 60-72	2.9	15
125	Image registration using mutual information **2015**, 295-308		7
124	Calculation of bloodstain impact angles using an Active Bloodstain Shape Model. *Journal of Forensic Radiology and Imaging*, **2014**, 2, 188-198	1.3	6

123	LSP based comparison of 3D ear models **2014**,		1
122	Modeling 3D facial shape from DNA. *PLoS Genetics*, **2014**, 10, e1004224	6	142
121	A spatially-dense regression study of facial form and tissue depth: towards an interactive tool for craniofacial reconstruction. *Forensic Science International*, **2014**, 234, 103-10	2.6	35
120	Unsupervised segmentation, clustering, and groupwise registration of heterogeneous populations of brain MR images. *IEEE Transactions on Medical Imaging*, **2014**, 33, 201-24	11.7	30
119	Bipolar Comparison of 3D Ear Models. *Communications in Computer and Information Science*, **2014**, 160-169	3	1
118	meshSIFT: Local surface features for 3D face recognition under expression variations and partial data. *Computer Vision and Image Understanding*, **2013**, 117, 158-169	4.3	97
117	Feasibility and validation of virtual autopsy for dental identification using the Interpol dental codes. *Journal of Clinical Forensic and Legal Medicine*, **2013**, 20, 248-54	1.7	40
116	A comparison of methods for non-rigid 3D shape retrieval. *Pattern Recognition*, **2013**, 46, 449-461	7.7	117
115	Isometric deformation invariant 3D shape recognition. *Pattern Recognition*, **2012**, 45, 2817-2831	7.7	31
114	Dysmorphometrics: the modelling of morphological abnormalities. *Theoretical Biology and Medical Modelling*, **2012**, 9, 5	2.3	28
113	Feature-based piecewise rigid registration in 2-D medical images **2012**,		3
112	Sexual dimorphism in multiple aspects of 3D facial symmetry and asymmetry defined by spatially dense geometric morphometrics. *Journal of Anatomy*, **2012**, 221, 97-114	2.9	55
111	A Comparative Study of 3-D Face Recognition Under Expression Variations. *IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews*, **2012**, 42, 710-727		40
110	Integrating Statistical Shape Models into a Graph Cut Framework for Tooth Segmentation. *Lecture Notes in Computer Science*, **2012**, 242-249	0.9	6
109	Symmetric surface-feature based 3D face recognition for partial data **2011**,		8
108	Robust point set registration using EM-ICP with information-theoretically optimal outlier handling **2011**,		18
107	Spatially-dense 3D facial asymmetry assessment in both typical and disordered growth. *Journal of Anatomy*, **2011**, 219, 444-55	2.9	62
106	A quantitative comparison of 3D face databases for 3D face recognition **2011**,		1

105	Automated Cephalometric Landmark Localization Using Sparse Shape and Appearance Models. *Lecture Notes in Computer Science*, **2011**, 249-256	0.9	4
104	Nosologic Imaging of Brain Tumors Using MRI and MRSI **2011**, 155-168		
103	Semisupervised Probabilistic Clustering of Brain MR Images Including Prior Clinical Information. *Lecture Notes in Computer Science*, **2011**, 184-194	0.9	1
102	SPARC: Unified framework for automatic segmentation, probabilistic atlas construction, registration and clustering of brain MR images **2010**,		4
101	Automated Cephalometric Landmark Identification Using Shape and Local Appearance Models **2010**,		2
100	Fusion of an Isometric Deformation Modeling Approach Using Spectral Decomposition and a Region-Based Approach Using ICP for Expression-Invariant 3D Face Recognition **2010**,		6
99	Feature detection on 3D face surfaces for pose normalisation and recognition **2010**,		58
98	**2010**,		1
97	Segmentation of liver portal veins by global optimization **2010**,		6
96	Bayesian estimation of optimal craniofacial reconstructions. *Forensic Science International*, **2010**, 201, 146-52	2.6	29
95	Nonrigid image registration using conditional mutual information. *IEEE Transactions on Medical Imaging*, **2010**, 29, 19-29	11.7	156
94	Semi-automatic level set segmentation of liver tumors combining a spiral-scanning technique with supervised fuzzy pixel classification. *Medical Image Analysis*, **2010**, 14, 13-20	15.4	79
93	Targeting specific facial variation for different identification tasks. *Forensic Science International*, **2010**, 201, 118-24	2.6	14
92	Objective 3D face recognition: Evolution, approaches and challenges. *Forensic Science International*, **2010**, 201, 125-32	2.6	66
91	Computerized craniofacial reconstruction: Conceptual framework and review. *Forensic Science International*, **2010**, 201, 138-45	2.6	90
90	Inelastic Deformation Invariant Modal Representation for Non-rigid 3D Object Recognition. *Lecture Notes in Computer Science*, **2010**, 162-171	0.9	5
89	Segmentation of lung vessel trees by global optimization **2009**,		4
88	Nosologic imaging of the brain: segmentation and classification using MRI and MRSI. *NMR in Biomedicine*, **2009**, 22, 374-90	4.4	41

87	Isometric deformation modeling using singular value decomposition for 3D expression-invariant face recognition **2009**,		11
86	Image Segmentation Using Graph Representations and Local Appearance and Shape Models. *Lecture Notes in Computer Science*, **2009**, 353-365	0.9	1
85	Isometric Deformation Modelling for Object Recognition. *Lecture Notes in Computer Science*, **2009**, 757-765	0.9	20
84	An Elasticity Penalty: Mixing FEM and Nonrigid Registration. *IFMBE Proceedings*, **2009**, 709-712	0.2	1
83	3D Face Recognition using Point Cloud Kernel Correlation **2008**,		5
82	A statistical framework for the registration of 3D knee implant components to single-plane X-ray images **2008**,		2
81	Model-based segmentation using graph representations. *Lecture Notes in Computer Science*, **2008**, 11, 393-400	0.9	6
80	Minimal shape and intensity cost path segmentation. *IEEE Transactions on Medical Imaging*, **2007**, 26, 1115-29	11.7	71
79	Nonrigid registration for subtraction CT angiography applied to the carotids and cranial arteries. *Academic Radiology*, **2007**, 14, 1562-76	4.3	15
78	A Statistical Approach to Determine Symmetrical Solutions for the Registration of 3D Knee Implant Models to Sagittal Fluoroscopy Images **2007**,		1
77	Robust initialization for 2D/3D registration of knee implant models to single-plane fluoroscopy **2007**, 6512, 86		3
76	A robust optimization strategy for intensity-based 2D/3D registration of knee implant models to single-plane fluoroscopy **2007**,		2
75	Linear normalization of MR brain images in pediatric patients with periventricular leukomalacia. *NeuroImage*, **2007**, 35, 686-97	7.9	14
74	Atlas-to-image non-rigid registration by minimization of conditional local entropy. *Information Processing in Medical Imaging*, **2007**, 20, 320-32		8
73	Nonrigid image registration using conditional mutual information. *Information Processing in Medical Imaging*, **2007**, 20, 725-37		13
72	A New Cone-beam Computed Tomography System for Dental Applications with Innovative 3D Software. *International Journal of Computer Assisted Radiology and Surgery*, **2006**, 1, 389-402	3.9	4
71	Third molar evaluation with cone-beam computerized tomography. *International Journal of Computer Assisted Radiology and Surgery*, **2006**, 1, 113-116	3.9	1
70	Non-rigid brain image registration using a statistical deformation model **2006**,		5

69	Non-rigid image registration using mutual information **2006**, 91-103		
68	Large-scale validation of non-rigid registration algorithms for atlas-based brain image segmentation **2006**,		1
67	Craniofacial reconstruction using a combined statistical model of face shape and soft tissue depths: methodology and validation. *Forensic Science International*, **2006**, 159 Suppl 1, S147-58	2.6	95
66	Computerized craniofacial reconstruction using CT-derived implicit surface representations. *Forensic Science International*, **2006**, 159 Suppl 1, S164-74	2.6	55
65	An information theoretic approach for non-rigid image registration using voxel class probabilities. *Medical Image Analysis*, **2006**, 10, 413-31	15.4	24
64	Statistically Deformable Face Models for Cranio-Facial Reconstruction. *Journal of Computing and Information Technology*, **2006**, 14, 21	0.4	29
63	A Unified Framework for Atlas Based Brain Image Segmentation and Registration. *Lecture Notes in Computer Science*, **2006**, 136-143	0.9	10
62	Comparison Between Parzen Window Interpolation and Generalised Partial Volume Estimation for Nonrigid Image Registration Using Mutual Information. *Lecture Notes in Computer Science*, **2006**, 206-213	0.9	6
61	Model-Based Brain Tissue Classification **2005**, 1-55		
60	Automatic analysis of cerebral asymmetry: an exploratory study of the relationship between brain torque and planum temporale asymmetry. *NeuroImage*, **2005**, 24, 678-91	7.9	90
59	Feature-based statistical analysis of structural MR data for automatic detection of focal cortical dysplastic lesions. *NeuroImage*, **2005**, 27, 253-66	7.9	18
58	Construction and validation of mean shape atlas templates for atlas-based brain image segmentation. *Lecture Notes in Computer Science*, **2005**, 19, 689-700	0.9	32
57	Removal of Plaque and Stent Artifacts in Subtraction CT Angiography Using Nonrigid Registration and a Volume Penalty. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2005**, 2005, 4294-7		2
56	Semi-automated Ultrasound Facial Soft Tissue Depth Registration: Method and Validation. *Journal of Forensic Sciences*, **2005**, 50, 1-7	1.8	47
55	Plaque and stent artifact reduction in subtraction CT angiography using nonrigid registration and a volume penalty. *Lecture Notes in Computer Science*, **2005**, 8, 361-8	0.9	4
54	Non-rigid Atlas-to-Image Registration by Minimization of Class-Conditional Image Entropy. *Lecture Notes in Computer Science*, **2004**, 745-753	0.9	14
53	Construction of a Brain Template from MR Images Using State-of-the-Art Registration and Segmentation Techniques. *Lecture Notes in Computer Science*, **2004**, 696-703	0.9	23
52	Effects of Anatomical Asymmetry in Spatial Priors on Model-Based Segmentation of the Brain MRI: A Validation Study. *Lecture Notes in Computer Science*, **2004**, 327-334	0.9	2

51	Nonrigid Image Registration Using Free-Form Deformations with a Local Rigidity Constraint. *Lecture Notes in Computer Science*, **2004**, 639-646	0.9	26
50	Temporal Subtraction of Thorax CR Images. *Lecture Notes in Computer Science*, **2003**, 738-745	0.9	2
49	Accuracy of diffusion-weighted MR imaging in the diagnosis of sporadic Creutzfeldt-Jakob disease. *Journal of Neurology*, **2003**, 250, 222-5	5.5	37
48	Application of a new image analysis technique to study brain asymmetry in schizophrenia. *Psychiatry Research - Neuroimaging*, **2003**, 124, 25-35	2.9	30
47	A viscous fluid model for multimodal non-rigid image registration using mutual information. *Medical Image Analysis*, **2003**, 7, 565-75	15.4	152
46	A unifying framework for partial volume segmentation of brain MR images. *IEEE Transactions on Medical Imaging*, **2003**, 22, 105-19	11.7	190
45	Temporal subtraction of thorax CR images using a statistical deformation model. *IEEE Transactions on Medical Imaging*, **2003**, 22, 1490-504	11.7	27
44	Medical image registration using mutual information. *Proceedings of the IEEE*, **2003**, 91, 1699-1722	14.3	218
43	Non-rigid image registration using a statistical spline deformation model. *Lecture Notes in Computer Science*, **2003**, 18, 463-74	0.9	12
42	Evaluation of image features and search strategies for segmentation of bone structures in radiographs using Active Shape Models. *Medical Image Analysis*, **2002**, 6, 47-62	15.4	61
41	Retrospective correction of the heel effect in hand radiographs. *Medical Image Analysis*, **2002**, 6, 183-90	15.4	9
40	Validation of Nonlinear Spatial Filtering to Improve Tissue Segmentation of MR Brain Images. *Lecture Notes in Computer Science*, **2001**, 507-515	0.9	
39	Quantitative MR Imaging. *Medical Radiology*, **2001**, 47-64	0.2	
38	A Statistical Framework for Partial Volume Segmentation. *Lecture Notes in Computer Science*, **2001**, 204-212	0.9	5
37	Retrospective Correction of the Heel Effect in Hand Radiographs. *Lecture Notes in Computer Science* , **2001**, 301-308	0.9	2
36	Comparative evaluation of multiresolution optimization strategies for multimodality image registration by maximization of mutual information. *Medical Image Analysis*, **1999**, 3, 373-86	15.4	285
35	Automated Segmentation of MS Lesions from Multi-channel MR Images. *Lecture Notes in Computer Science*, **1999**, 11-21	0.9	11
34	Quantification of Cerebral Grey and White Matter Asymmetry from MRI. *Lecture Notes in Computer Science*, **1999**, 348-357	0.9	15

33	Non-rigid multimodal image registration using mutual information. *Lecture Notes in Computer Science*, **1998**, 1099-1106	0.9	46
32	Automatic 3D segmentation of internal structures of the head in MR images using a combination of similarity and free-form transformations **1998**,		7
31	Automatic segmentation of brain tissues and MR bias field correction using a digital brain atlas. *Lecture Notes in Computer Science*, **1998**, 1222-1229	0.9	8
30	Comparison and evaluation of retrospective intermodality brain image registration techniques. *Journal of Computer Assisted Tomography*, **1997**, 21, 554-66	2.2	608
29	Comparison and evaluation of retrospective intermodality image registration techniques **1996**,		28
28	The use of magnetic resonance angiography in stereotactic neurosurgery. *Journal of Neurosurgery*, **1995**, 82, 982-7	3.2	9
27	Protocol for the clinical functionality assessment of a workstation for stereotactic neurosurgery. *IEEE Transactions on Medical Imaging*, **1995**, 14, 577-86	11.7	1
26	3D Multi-Modality Medical Image Registration Using Feature Space Clustering. *Lecture Notes in Computer Science*, **1995**, 195-204	0.9	52
25	Computer-Aided Interactive Object Delineation Using an Intelligent Paintbrush Technique. *Lecture Notes in Computer Science*, **1995**, 77-83	0.9	5
24	On the problem of geometric distortion in magnetic resonance images for stereotactic neurosurgery. *Magnetic Resonance Imaging*, **1994**, 12, 749-65	3.3	69
23	Registration of 3D multi-modality medical images using surfaces and point landmarks. *Pattern Recognition Letters*, **1994**, 15, 461-467	4.7	15
22	Continuous voxel classification by stochastic relaxation: theory and application to MR imaging and MR angiography. *Image and Vision Computing*, **1994**, 12, 559-572	3.7	6
21	Automatic registration of 3D images of the brain based on fuzzy objects **1994**, 2167, 162		2
20	How does the stereotactic workstation help the neurosurgeon?. *Stereotactic and Functional Neurosurgery*, **1994**, 63, 17-22	1.6	2
19	Image segmentation: methods and applications in diagnostic radiology and nuclear medicine. *European Journal of Radiology*, **1993**, 17, 14-21	4.7	30
18	New high-performance 3D registration algorithms for 3D medical images **1993**,		3
17	Surface-based registration of 3D medical images **1993**,		7
16	Stochastical segmentation method for vascular images and its convergence and parallelization **1993**, 2035, 108		

15	Convergence measure and some parallel aspects of Markov-chain Monte Carlo algorithms **1993**, 2032, 23		2
14	Computer assisted stereotactic neurosurgery. *Image and Vision Computing*, **1993**, 11, 468-485	3.7	6
13	An Object Oriented Tool for 3D Multimodality Surface-based Image Registration **1993**, 568-573		1
12	Integrated visualization of brain anatomy and cerebral blood vessels **1992**,		1
11	Knowledge-based 3-D segmentation of bloodvessels on a spatial sequence of MRI and Ultrasound images **1989**,		3
10	A Knowledge-Based System For The 3D Reconstruction And Representation Of The Cerebral Blood Vessels From A Pair Of Stereoscopic Angiograms **1989**,		4
9	An algorithm for surface reconstruction from planar contours using smoothing splines. *Journal of Computational and Applied Mathematics*, **1988**, 23, 367-388	2.4	5
8	A 3-D Display System With Stereoscopic, Movement Parallax And Real-Time Rotation Capabilities **1988**, 0914, 855		1
7	The Suetens-Gybels-Vandermeulen (SGV) Angiographic Localizer For Stereotactic Neurosurgery **1988**, 0914, 760		
6	Angiographic localizer for the BRW stereotactic system. *Stereotactic and Functional Neurosurgery*, **1987**, 50, 87-91	1.6	2
5	A New Software Package For The Microcomputer Based BRW Stereotactic System: Integrated Stereoscopic Views Of CT Data And Angiograms **1986**,		9
4	Automated facial reconstruction203-221		4
3	Modeling shapes and textures from images: new frontiers		4
2	Computer-aided interactive object delineation using an intelligent paintbrush technique77-83		1
1	3D multi-modality medical image registration using feature space clustering193-204		13