Elsa D Angelini

List of Publications by Year
in descending order

146 papers	3,426 citations	279798 23 h-index	168389 53 g-index
147 all docs	147 docs citations	147 times ranked	4478 citing authors

#	Article	IF	Citations
1	Post-natal growth of very preterm neonates â€“ Authors' reply. The Lancet Child and Adolescent Health, 2022, 6, e11.	5.6	0
2	Self-training for Brain Tumour Segmentation with Uncertainty Estimation and Biophysics-Guided Survival Prediction. Lecture Notes in Computer Science, 2021, , 514-523.	1.3	3
3	Identification of variation in nutritional practice in neonatal units in England and association with clinical outcomes using agnostic machine learning. Scientific Reports, 2021, 11, 7178.	3.3	10
4	Co-Seg: An Image Segmentation Framework Against Label Corruption. , 2021, , .		2
5	Enhanced-Quality Gan (EQ-GAN) on Lung CT Scans: Toward Truth and Potential Hallucinations. , 2021, , .		2
6	Using Artificial Intelligence in Fungal Lung Disease: CPA CT Imaging as an Example. Mycopathologia, 2021, 186, 733-737.	3.1	6
7	3d Pathological Signs Detection And Scoring On CPA CT Lung Scans. , 2021, , .		0
8	Unsupervised Clustering Of Airway Tree Structures On High-Resolution CT: The Mesa Lung Study. , 2021, , .		0
9	Birthweight and patterns of postnatal weight gain in very and extremely preterm babies in England and Wales, 2008â€“19: a cohort study. The Lancet Child and Adolescent Health, 2021, 5, 719-728.	5.6	19
10	Changes in neonatal admissions, care processes and outcomes in England and Wales during the COVID-19 pandemic: a whole population cohort study. BMJ Open, 2021, 11, e054410.	1.9	16
11	Novel Subtypes of Pulmonary Emphysema Based on Spatially-Informed Lung Texture Learning: The Multi-Ethnic Study of Atherosclerosis (MESA) COPD Study. IEEE Transactions on Medical Imaging, 2021, 40, 3652-3662.	8.9	6
12	Characterizing Alzheimer's Disease With Image and Genetic Biomarkers Using Supervised Topic Models. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1180-1187.	6.3	8
13	Machine-Learning on Liver Ultrasound to Stratify Multiple Diseases via Blood-Vessels and Perfusion Characteristics. , 2020, , .		1
14	Encoding Human Cortex Using Spherical CNNs - A Study on Alzheimer's Disease Classification. , 2020, , .		4
15	Segmentation and Uncertainty Measures of Cardiac Substrates within Optical Coherence Tomography Images via Convolutional Neural Networks. , 2020, , .		1
16	Simultaneous left atrium anatomy and scar segmentations via deep learning in multiview information with attention. Future Generation Computer Systems, 2020, 107, 215-228.	7.5	73
17	Automatic Brain Tumour Segmentation and Biophysics-Guided Survival Prediction. Lecture Notes in Computer Science, 2020, , 61-72.	1.3	12
18	Suggestive Annotation of Brain Tumour Images with Gradient-Guided Sampling. Lecture Notes in Computer Science, 2020, , 156-165.	1.3	14

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19	Heterogeneity Measurement of Cardiac Tissues Leveraging Uncertainty Information from Image Segmentation. Lecture Notes in Computer Science, 2020, 12261, 782-791.	1.3	3
20	Association Between Long-term Exposure to Ambient Air Pollution and Change in Quantitatively Assessed Emphysema and Lung Function. JAMA - Journal of the American Medical Association, 2019, 322, 546.	7.4	236
21	Automatic Segmentation and Identification of Spinous Processes on Sagittal X-Rays Based on Random Forest Classification and Dedicated Contextual Features. , 2019, , .		0
22	Unsupervised Domain Adaption With Adversarial Learning (UDAA) for Emphysema Subtyping on Cardiac CT Scans: The Mesa Study. , 2019, , .		4
23	Enhanced Generative Model for Unsupervised Discovery of Spatially-Informed Macroscopic Emphysema: The Mesa Copd Study. , 2019, , .		0
24	Vertebral rotation estimation from frontal X-rays using a quasi-automated pedicle detection method. European Spine Journal, 2019, 28, 3026-3034.	2.2	13
25	Quantifying Brain [¹⁸F]FDG Uptake Noninvasively by Combining Medical Health Records and Dynamic PET Imaging Data. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 2576-2582.	6.3	10
26	Unravelling machine learning: insights in respiratory medicine. European Respiratory Journal, 2019, 54, 1901216.	6.7	22
27	Compressed sensing-enabled phase-sensitive swept-source optical coherence tomography. Optics Express, 2019, 27, 855.	3.4	7
28	Quasi-automatic 3D reconstruction of the full spine from low-dose biplanar X-rays based on statistical inferences and image analysis. European Spine Journal, 2019, 28, 658-664.	2.2	23
29	Vertebral corners detection on sagittal X-rays based on shape modelling, random forest classifiers and dedicated visual features. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2019, 7, 132-144.	1.9	9
30	Transfer Learning from Partial Annotations for Whole Brain Segmentation. Lecture Notes in Computer Science, 2019, , 199-206.	1.3	7
31	Automated Spinal Midline Delineation on Biplanar X-Rays Using Mask R-CNN. Lecture Notes in Computational Vision and Biomechanics, 2019, , 307-316.	0.5	2
32	A Longitudinal Cohort Study of Aspirin Use and Progression of Emphysema-like Lung Characteristics on CT Imaging. Chest, 2018, 154, 41-50.	0.8	28
33	Denoising of Microscopy Images: A Review of the State-of-the-Art, and a New Sparsity-Based Method. IEEE Transactions on Image Processing, 2018, 27, 3842-3856.	9.8	63
34	Multiview Sequential Learning and Dilated Residual Learning for a Fully Automatic Delineation of the Left Atrium and Pulmonary Veins from Late Gadolinium-Enhanced Cardiac MRI Images. , 2018, 2018, 1123-1127.		12
35	Alzheimer's disease diagnosis based on anatomically stratified texture analysis of the hippocampus in structural MRI. , 2018, , .		9
36	Multiview Two-Task Recursive Attention Model for Left Atrium and Atrial Scars Segmentation. Lecture Notes in Computer Science, 2018, , 455-463.	1.3	23

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37	Generative method to discover emphysema subtypes with unsupervised learning using lung macroscopic patterns (LMPS): The MESA COPD study. , 2017, 2017, 375-378.		8
38	Reducing data acquisition for fast Structured Illumination Microscopy using Compressed Sensing. , 2017, , .		5
39	Explaining Radiological Emphysema Subtypes with Unsupervised Texture Prototypes: MESA COPD Study. Lecture Notes in Computer Science, 2017, 2017, 69-80.	1.3	10
40	Discriminative Localization in CNNs for Weakly-Supervised Segmentation of Pulmonary Nodules. Lecture Notes in Computer Science, 2017, 10435, 568-576.	1.3	78
41	Unsupervised Discovery of Spatially-Informed Lung Texture Patterns for Pulmonary Emphysema: The MESA COPD Study. Lecture Notes in Computer Science, 2017, 10433, 116-124.	1.3	13
42	A sparsity-based simplification method for segmentation of spectral-domain optical coherence tomography images. , 2017, , .		2
43	Adaptive particle filtering for coronary artery segmentation from 3D CT angiograms. Computer Vision and Image Understanding, 2016, 151, 29-46.	4.7	28
44	Lumbar spine posterior corner detection in X-rays using Haar-based features. , 2016, , .		6
45	Sparsity-based simplification of spectral-domain optical coherence tomography images of cardiac samples. , 2016, , .		3
46	Texton and sparse representation based texture classification of lung parenchyma in CT images. , 2016, 2016, 1276-1279.		8
47	Guest Editorial IEEE EMBC 2015. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 1215-1215.	6.3	0
48	Emphysema Quantification on Cardiac CT Scans Using Hidden Markov Measure Field Model: The MESA Lung Study. Lecture Notes in Computer Science, 2016, 9901, 624-631.	1.3	7
49	Toward Noninvasive Quantification of Brain Radioligand Binding by Combining Electronic Health Records and Dynamic PET Imaging Data. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 1271-1282.	6.3	8
50	Non-invasive quantification of brain [¹⁸F]-FDG uptake by combining medical health records and dynamic PET imaging data. , 2015, 2015, 2243-6.		2
51	Equating emphysema scores and segmentations across CT reconstructions: A comparison study. , 2015, , .		1
52	Sparse sampling and unsupervised learning of lung texture patterns in pulmonary emphysema: MESA COPD study. , 2015, , .		6
53	Segmentation of embryonic and fetal 3D ultrasound images based on pixel intensity distributions and shape priors. Medical Image Analysis, 2015, 24, 255-268.	11.6	26
54	BM3D-based ultrasound image denoising via brushlet thresholding. , 2015, , .		11

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55	Image denoising by multiple compressed sensing reconstructions. , 2015, , .		6
56	Image denoising by adaptive Compressed Sensing reconstructions and fusions. Proceedings of SPIE, 2015, , .	0.8	2
57	Toward diagnostic criteria for left ventricular systolic dysfunction from myocardial deformation. , 2014, , .		0
58	An Unbiased Risk Estimator for Image Denoising in the Presence of Mixed Poissonâ€“Gaussian Noise. IEEE Transactions on Image Processing, 2014, 23, 1255-1268.	9.8	70
59	Adaptive Quantification and Longitudinal Analysis of Pulmonary Emphysema With a Hidden Markov Measure Field Model. IEEE Transactions on Medical Imaging, 2014, 33, 1527-1540.	8.9	23
60	Locally weighted total variation denoising for PSF modeling artifact suppression in PET reconstruction. , 2014, , .		0
61	Maximum Likelihood Estimation of Shear Wave Speed in Transient Elastography. IEEE Transactions on Medical Imaging, 2014, 33, 1338-1349.	8.9	15
62	Effects of slice thickness and head rotation when measuring glioma sizes on MRI: in support of volume segmentation versus two largest diameters methods. Journal of Neuro-Oncology, 2013, 112, 165-172.	2.9	14
63	Locally weighted total variation denoising for ringing artifact suppression in pet reconstruction using PSF modeling. , 2013, 2013, 1252-1255.		4
64	Automatic Segmentation of Antenatal 3-D Ultrasound Images. IEEE Transactions on Biomedical Engineering, 2013, 60, 1388-1400.	4.2	36
65	Accurate and robust shape descriptors for the identification of RIB cage structures in CT-images with Random Forests. , 2013, , .		3
66	Conciliating syntactic and semantic constraints for multi-phase and multi-channel region segmentation. Computer Vision and Image Understanding, 2013, 117, 819-826.	4.7	1
67	Robust quantification of pulmonary emphysema with a Hidden Markov Measure Field model. , 2013, , .		4
68	Biological video reconstruction using linear or non-linear Fourier measurements. Proceedings of SPIE, 2013, , .	0.8	0
69	Segmentation of fetal envelope from 3D ultrasound images based on pixel intensity statistical distribution and shape priors. , 2013, , .		6
70	Phase retrieval with sparsity priors and application to microscopy video reconstruction. , 2013, , .		1
71	Video reconstruction using compressed sensing measurements and 3d total variation regularization for bio-imaging applications. , 2012, , .		15
72	Segmentation-free and multiscale-free extraction of medial information using Gradient Vector Flow — Application to vascular structures. , 2012, , .		0

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73	Brushlet segmentation for automatic detection of lumen borders in IVUS images: A comparison study. , 2012, , .		4
74	Impact of temporal resolution on LV myocardial regional strain assessment with real-time 3D ultrasound. , 2012, 2012, 4075-8.		1
75	A State-of-the-Art Review on Segmentation Algorithms in Intravascular Ultrasound (IVUS) Images. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 823-834.	3.2	114
76	Imaging and 3D morphological analysis of collagen fibrils. Journal of Microscopy, 2012, 247, 161-175.	1.8	33
77	Differential MRI analysis for quantification of low grade glioma growth. Medical Image Analysis, 2012, 16, 114-126.	11.6	19
78	Applications of Multiscale Overcomplete Wavelet-Based Representations in Intravascular Ultrasound (IVUS) Images. , 2012, , 313-336.		1
79	Comparison of reconstruction algorithms in compressed sensing applied to biological imaging. , 2011, , .		15
80	Evidence for potentials and limitations of brain plasticity using an atlas of functional resectability of WHO grade II gliomas: Towards a â€œminimal common brainâ€• NeuroImage, 2011, 56, 992-1000.	4.2	325
81	Implicit medial representation for vessel segmentation. Proceedings of SPIE, 2011, , .	0.8	0
82	Parameterization of real-time 3D speckle tracking framework for cardiac strain assessment. , 2011, 2011, 2654-7.		2
83	Off-axis compressed holographic microscopy in low-light conditions. Optics Letters, 2011, 36, 79.	3.3	50
84	Numerical evaluation of subsampling effects on image reconstruction in compressed sensing microscopy. , 2011, , .		1
85	Vessel geometry modeling and segmentation using convolution surfaces and an implicit medial axis. , 2011, , .		3
86	Numerical evaluation of sampling bounds for near-optimal reconstruction in compressed sensing. , 2011, , .		5
87	Evaluation of in vivo Liver Tissue Characterization with Spectral RF Analysis versus Elasticity. Lecture Notes in Computer Science, 2011, 14, 387-395.	1.3	2
88	Hybrid 3D pregnant woman and fetus modeling from medical imaging for dosimetry studies. International Journal of Computer Assisted Radiology and Surgery, 2010, 5, 49-56.	2.8	11
89	Real-time segmentation by Active Geometric Functions. Computer Methods and Programs in Biomedicine, 2010, 98, 223-230.	4.7	42
90	Automatic detection of luminal borders in IVUS images by magnitude-phase histograms of complex brushlet coefficients. , 2010, 2010, 3073-6.		11

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91	Segmentation of the fetal envelope on ante-natal MRI. , 2010, , .		4
92	Compressed sensing applications for biological microscopy. , 2010, , .		3
93	Compressed sensing for digital holographic microscopy. , 2010, , .		1
94	Contrast mapping and statistical testing for low-grade glioma growth quantification on brain MRI. , 2010, , .		2
95	Physics-Based Modeling of the Pregnant Woman. Lecture Notes in Computer Science, 2010, , 71-81.	1.3	0
96	Measurement of the Skin-Liver Capsule Distance on Ultrasound RF Data for 1D Transient Elastography. Lecture Notes in Computer Science, 2010, 13, 34-41.	1.3	4
97	Compressed sensing with off-axis frequency-shifting holography. Optics Letters, 2010, 35, 871.	3.3	81
98	Denoising in fluorescence microscopy using compressed sensing with multiple reconstructions and non-local merging. , 2010, 2010, 3394-7.		7
99	Joint variational segmentation of CT-PET data for tumoral lesions. , 2010, , .		17
100	Whole-body pregnant woman modeling by digital geometry processing with detailed uterofetal unit based on medical images. IEEE Transactions on Biomedical Engineering, 2010, 57, 2346-2358.	4.2	35
101	FibroscanÂ®practice improvement with a real-time assistance ultrasound tool: a premiminary study. , 2009, , .		1
102	A compressed sensing approach for biological microscopic image processing. , 2009, , .		8
103	Compressed Sensing in microscopy with random projections in the Fourier domain. , 2009, , .		2
104	Design and study of flux-based features for 3D vascular tracking. , 2009, , .		18
105	Compressed sensing in biological microscopy. , 2009, , .		9
106	A New Fuzzy Connectivity Measure for Fuzzy Sets. Journal of Mathematical Imaging and Vision, 2009, 34, 107-136.	1.3	18
107	Region-Based Endocardium Tracking on Real-Time Three-Dimensional Ultrasound. Ultrasound in Medicine and Biology, 2009, 35, 256-265.	1.5	47
108	A review of 3D vessel lumen segmentation techniques: Models, features and extraction schemes. Medical Image Analysis, 2009, 13, 819-845.	11.6	775

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109	Surface Function Actives. Journal of Visual Communication and Image Representation, 2009, 20, 478-490.	2.8	16
110	Quantitative validation of optical flow based myocardial strain measures using sonomicrometry. , 2009, 2009, 454-457.		11
111	Automatic segmentation of head structures on fetal MRI. , 2009, , .		24
112	Classification of blood regions in IVUS images using three dimensional brushlet expansions. , 2009, 2009, 471-4.		2
113	Lumen Border Detection of Intravascular Ultrasound via Denoising of Directional Wavelet Representations. Lecture Notes in Computer Science, 2009, , 104-113.	1.3	6
114	Coronary Occlusion Detection with 4D Optical Flow Based Strain Estimation on 4D Ultrasound. Lecture Notes in Computer Science, 2009, , 211-219.	1.3	11
115	Bayesian Maximal Paths for Coronary Artery Segmentation from 3D CT Angiograms. Lecture Notes in Computer Science, 2009, 12, 222-229.	1.3	19
116	Utero-Fetal Unit and Pregnant Woman Modeling Using a Computer Graphics Approach for Dosimetry Studies. Lecture Notes in Computer Science, 2009, 12, 1025-1032.	1.3	6
117	Integrated multimedia electronic patient record and graph-based image information for cerebral tumors. Computers in Biology and Medicine, 2008, 38, 425-437.	7.0	5
118	Medial-based Bayesian tracking for vascular segmentation: Application to coronary arteries in 3D CT angiography. , 2008, , .		24
119	Real-time segmentation of 4D ultrasound by Active Geometric Functions. , 2008, , .		1
120	Segmentation of fetal 3D ultrasound based on statistical prior and deformable model. , 2008, , .		8
121	Tracking Endocardium Using Optical Flow along Iso-Value Curve. , 2008, , 337-360.		0
122	Brain MRI Segmentation with Multiphase Minimal Partitioning: A Comparative Study. International Journal of Biomedical Imaging, 2007, 2007, 1-15.	3.9	21
123	Glioma Dynamics and Computational Models: A Review of Segmentation, Registration, and In Silico Growth Algorithms and their Clinical Applications. Current Medical Imaging, 2007, 3, 262-276.	0.8	93
124	VALIDATION OF OPTICAL-FLOW FOR QUANTIFICATION OF MYOCARDIAL DEFORMATIONS ON SIMULATED RT3D ULTRASOUND. , 2007, , .		20
125	ADAPTIVE SEGMENTATION OF INTERNAL BRAIN STRUCTURES IN PATHOLOGICAL MR IMAGES DEPENDING ON TUMOR TYPES. , 2007, , .		5
126	Combining Radiometric and Spatial Structural Information in a New Metric for Minimal Surface Segmentation. Lecture Notes in Computer Science, 2007, 20, 283-295.	1.3	8

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127	An incremental and optimized learning method for the automatic classification of protein crystal images. , 2006, Suppl, 6526-9.		3
128	Variational segmentation framework in prolate spheroidal coordinates for 3D real-time echocardiography. , 2006, , .		4
129	Tracking Endocardium Using Optical Flow along Iso-Value Curve. , 2006, 2006, 707-10.		7
130	Review of Myocardial Motion Estimation Methods from Optical Flow Tracking on Ultrasound Data. , 2006, 2006, 1537-40.		16
131	Superresolution spatial compounding techniques with application to 3D breast ultrasound imaging. , 2006, , .		7
132	Recognition of micro-array protein crystals images using multi-scale representations. , 2005, , .		1
133	Evaluation of optical flow algorithms for tracking endocardial surfaces on three-dimensional ultrasound data. , 2005, , .		14
134	Tracking of LV Endocardial Surface on Real-Time Three-Dimensional Ultrasound with Optical Flow. Lecture Notes in Computer Science, 2005, , 434-445.	1.3	15
135	Dynamic osmotic loading of chondrocytes using a novel microfluidic device. Journal of Biomechanics, 2005, 38, 1273-1281.	2.1	38
136	Segmentation of real-time three-dimensional ultrasound for quantification of ventricular function: A clinical study on right and left ventricles. Ultrasound in Medicine and Biology, 2005, 31, 1143-1158.	1.5	96
137	Dynamic Cardiac Information From Optical Flow Using Four Dimensional Ultrasound. , 2005, 2005, 4465-8.		15
138	State of the Art of Level Set Methods in Segmentation and Registration of Medical Imaging Modalities. , 2005, , 47-101.		25
139	Comparison study of clinical 3D MRI brain segmentation evaluation. , 2004, 2004, 1671-4.		9
140	Assessment of visual quality and spatial accuracy of fast anisotropic diffusion and scan conversion algorithms for real-time three-dimensional spherical ultrasound. , 2004, , .		15
141	Segmentation and quantitative evaluation of brain MRI data with a multiphase 3D implicit deformable model. , 2004, 5370, 526.		9
142	Multi-phase Three-Dimensional Level Set Segmentation of Brain MRI. Lecture Notes in Computer Science, 2004, , 318-326.	1.3	8
143	Optimized Region Finding and Edge Detection of Knee Cartilage Surfaces from Magnetic Resonance Images. Annals of Biomedical Engineering, 2003, 31, 336-345.	2.5	7
144	Novel Application of Microfluidic Channels in Studying Cell Migration and Reorientation in Response to Direct Current Electric Fields. , 2002, , 243.		0

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145	LV volume quantification via spatiotemporal analysis of real-time 3-D echocardiography. IEEE Transactions on Medical Imaging, 2001, 20, 457-469.	8.9	106
146	Specificities of Physiological Signals and Medical Images. , 0, , 43-76.		2