

Gemma Piella

List of Publications by Year in descending order

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Version: 2024-02-01

93
papers

2,619
citations

331670

21
h-index

206112

48
g-index

100
all docs

100
docs citations

100
times ranked

2597
citing authors

#	ARTICLE	IF	CITATIONS
1	Machine-learning-based exploration to identify remodeling patterns associated with death or heart-transplant in pediatric-dilated cardiomyopathy. <i>Journal of Heart and Lung Transplantation</i> , 2022, 41, 516-526.	0.6	11
2	Nonlinear interaction between APOE $\epsilon 4$ allele load and age in the hippocampal surface of cognitively intact individuals. <i>Human Brain Mapping</i> , 2021, 42, 47-64.	3.6	12
3	Re-Identification and growth detection of pulmonary nodules without image registration using 3D siamese neural networks. <i>Medical Image Analysis</i> , 2021, 67, 101823.	11.6	20
4	Assessment of Radiomics and Deep Learning for the Segmentation of Fetal and Maternal Anatomy in Magnetic Resonance Imaging and Ultrasound. <i>Academic Radiology</i> , 2021, 28, 173-188.	2.5	23
5	Identifying causative mechanisms linking early-life stress to psycho-cardio-metabolic multi-morbidity: The EarlyCause project. <i>PLoS ONE</i> , 2021, 16, e0245475.	2.5	9
6	Survey on 3D face reconstruction from uncalibrated images. <i>Computer Science Review</i> , 2021, 40, 100400.	15.3	32
7	Analysis of nonstandardized stress echocardiography sequences using multiview dimensionality reduction. <i>Medical Image Analysis</i> , 2020, 60, 101594.	11.6	6
8	Integration of convolutional neural networks for pulmonary nodule malignancy assessment in a lung cancer classification pipeline. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 185, 105172.	4.7	55
9	TTTS-STgan: Stacked Generative Adversarial Networks for TTTS Fetal Surgery Planning Based on 3D Ultrasound. <i>IEEE Transactions on Medical Imaging</i> , 2020, 39, 3595-3606.	8.9	5
10	A novel approach to multiple anatomical shape analysis: Application to fetal ventriculomegaly. <i>Medical Image Analysis</i> , 2020, 64, 101750.	11.6	7
11	A survey on machine and statistical learning for longitudinal analysis of neuroimaging data in Alzheimer's disease. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 189, 105348.	4.7	44
12	Deep Q-CapsNet Reinforcement Learning Framework for Intrauterine Cavity Segmentation in TTTS Fetal Surgery Planning. <i>IEEE Transactions on Medical Imaging</i> , 2020, 39, 3113-3124.	8.9	5
13	TTTS-GPS: Patient-specific preoperative planning and simulation platform for twin-to-twin transfusion syndrome fetal surgery. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 179, 104993.	4.7	20
14	Global and Regional Changes in Cortical Development Assessed by MRI in Fetuses with Isolated Nonsevere Ventriculomegaly Correlate with Neonatal Neurobehavior. <i>American Journal of Neuroradiology</i> , 2019, 40, 1567-1574.	2.4	8
15	Fetal cortical surface atlas parcellation based on growth patterns. <i>Human Brain Mapping</i> , 2019, 40, 3881-3899.	3.6	31
16	Revealing heterogeneity of brain imaging phenotypes in Alzheimer's disease based on unsupervised clustering of blood marker profiles. <i>PLoS ONE</i> , 2019, 14, e0211121.	2.5	10
17	Fully automatic 3D reconstruction of the placenta and its peripheral vasculature in intrauterine fetal MRI. <i>Medical Image Analysis</i> , 2019, 54, 263-279.	11.6	31
18	Global Planar Convolutions for Improved Context Aggregation in Brain Tumor Segmentation. <i>Lecture Notes in Computer Science</i> , 2019, , 393-405.	1.3	4

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19	Image-Based 3D Characterization of Abdominal Aortic Aneurysm Deformation After Endovascular Aneurysm Repair. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 267.	4.1	7
20	Multimodal image registration using Laplacian commutators. <i>Information Fusion</i> , 2019, 49, 130-145.	19.1	26
21	Patch spaces and fusion strategies in patch-based label fusion. <i>Computerized Medical Imaging and Graphics</i> , 2019, 71, 79-89.	5.8	2
22	Machine learning-based phenogrouping in heart failure to identify responders to cardiac resynchronization therapy. <i>European Journal of Heart Failure</i> , 2019, 21, 74-85.	7.1	175
23	Segmentation and classification in MRI and US fetal imaging: Recent trends and future prospects. <i>Medical Image Analysis</i> , 2019, 51, 61-88.	11.6	66
24	Medical-based Deep Curriculum Learning for Improved Fracture Classification. <i>Lecture Notes in Computer Science</i> , 2019, , 694-702.	1.3	21
25	Random walks with statistical shape prior for cochlea and inner ear segmentation in micro-CT images. <i>Machine Vision and Applications</i> , 2018, 29, 405-414.	2.7	5
26	Machine Learning Analysis of Left Ventricular Function to Characterize Heart Failure With Preserved Ejection Fraction. <i>Circulation: Cardiovascular Imaging</i> , 2018, 11, e007138.	2.6	95
27	Learning non-linear patch embeddings with neural networks for label fusion. <i>Medical Image Analysis</i> , 2018, 44, 143-155.	11.6	21
28	Patient-specific estimation of detailed cochlear shape from clinical CT images. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2018, 13, 389-396.	2.8	19
29	Cortical folding alterations in fetuses with isolated non-severe ventriculomegaly. <i>NeuroImage: Clinical</i> , 2018, 18, 103-114.	2.7	18
30	Towards a Complete In Silico Assessment of the Outcome of Cochlear Implantation Surgery. <i>Molecular Neurobiology</i> , 2018, 55, 173-186.	4.0	7
31	Fetal MRI Synthesis via Balanced Auto-Encoder Based Generative Adversarial Networks. , 2018, 2018, 2599-2602.		2
32	Revealing Regional Associations of Cortical Folding Alterations with In Utero Ventricular Dilation Using Joint Spectral Embedding. <i>Lecture Notes in Computer Science</i> , 2018, 11072, 620-627.	1.3	2
33	Learning to combine complementary segmentation methods for fetal and 6-month infant brain MRI segmentation. <i>Computerized Medical Imaging and Graphics</i> , 2018, 69, 52-59.	5.8	17
34	Fetal cortical parcellation based on growth patterns. , 2018, 2018, 696-699.		2
35	Computational Evaluation of Cochlear Implant Surgery Outcomes Accounting for Uncertainty and Parameter Variability. <i>Frontiers in Physiology</i> , 2018, 9, 498.	2.8	7
36	A Quantitative Comparison of Methods for 3D Face Reconstruction from 2D Images. , 2018, , .		0

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37	Characterization of myocardial motion patterns by unsupervised multiple kernel learning. Medical Image Analysis, 2017, 35, 70-82.	11.6	49
38	Toward the automatic quantification of in utero brain development in 3D structural MRI: A review. Human Brain Mapping, 2017, 38, 2772-2787.	3.6	30
39	Quantification of oxygen changes in the placenta from BOLD MR image sequences. , 2017, , .		0
40	Discriminative confidence estimation for probabilistic multi-atlas label fusion. Medical Image Analysis, 2017, 42, 274-287.	11.6	8
41	On the Role of Patch Spaces in Patch-Based Label Fusion. Lecture Notes in Computer Science, 2017, , 37-44.	1.3	0
42	Learning and combining image neighborhoods using random forests for neonatal brain disease classification. Medical Image Analysis, 2017, 42, 189-199.	11.6	9
43	Quasi-Conformal Technique for Integrating and Validating Myocardial Tissue Characterization in MRI with Ex-Vivo Human Histological Data. Lecture Notes in Computer Science, 2017, , 172-181.	1.3	0
44	Learning pathological deviations from a normal pattern of myocardial motion. , 2016, , 365-382.		0
45	Analysis of Uncertainty and Variability in Finite Element Computational Models for Biomedical Engineering: Characterization and Propagation. Frontiers in Bioengineering and Biotechnology, 2016, 4, 85.	4.1	22
46	Iterated random walks with shape prior. Image and Vision Computing, 2016, 54, 12-21.	4.5	4
47	Building an Ensemble of Complementary Segmentation Methods by Exploiting Probabilistic Estimates. Lecture Notes in Computer Science, 2016, , 27-35.	1.3	11
48	Enhanced Probabilistic Label Fusion by Estimating Label Confidences Through Discriminative Learning. Lecture Notes in Computer Science, 2016, , 505-512.	1.3	1
49	Random walks with shape prior for cochlea segmentation in ex vivo μ CT. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1647-1659.	2.8	4
50	Automatic Model Generation Framework for Computational Simulation of Cochlear Implantation. Annals of Biomedical Engineering, 2016, 44, 2453-2463.	2.5	12
51	Integration of Multi-Plane Tissue Doppler and B-Mode Echocardiographic Images for Left Ventricular Motion Estimation. IEEE Transactions on Medical Imaging, 2016, 35, 89-97.	8.9	3
52	Electrophysiology Model for a Human Heart with Ischemic Scar and Realistic Purkinje Network. Lecture Notes in Computer Science, 2016, , 90-97.	1.3	1
53	A framework for optimal kernel-based manifold embedding of medical image data. Computerized Medical Imaging and Graphics, 2015, 41, 93-107.	5.8	14
54	Diffusion Maps for Multimodal Registration. Sensors, 2014, 14, 10562-10577.	3.8	17

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55	Improved Myocardial Motion Estimation Combining Tissue Doppler and B-Mode Echocardiographic Images. IEEE Transactions on Medical Imaging, 2014, 33, 2098-2106.	8.9	5
56	Pre to Intraoperative Data Fusion Framework for Multimodal Characterization of Myocardial Scar Tissue. IEEE Journal of Translational Engineering in Health and Medicine, 2014, 2, 1-11.	3.7	2
57	Image-Based Estimation of Myocardial Acceleration Using TDFFD: A Phantom Study. Lecture Notes in Computer Science, 2014, , 262-270.	1.3	1
58	An Adaptive Multiscale Similarity Measure for Non-rigid Registration. Lecture Notes in Computer Science, 2014, , 203-212.	1.3	0
59	Generating anatomical models of the heart and the aorta from medical images for personalized physiological simulations. Medical and Biological Engineering and Computing, 2013, 51, 1209-1219.	2.8	16
60	3D Strain Assessment in Ultrasound (Straus): A Synthetic Comparison of Five Tracking Methodologies. IEEE Transactions on Medical Imaging, 2013, 32, 1632-1646.	8.9	54
61	Multiview diffeomorphic registration: Application to motion and strain estimation from 3D echocardiography. Medical Image Analysis, 2013, 17, 348-364.	11.6	17
62	Image based cardiac acceleration map using statistical shape and 3D+t myocardial tracking models; in-vitro study on heart phantom. Proceedings of SPIE, 2013, , .	0.8	0
63	Interventional Endocardial Motion Estimation from Electroanatomical Mapping Data: Application to Scar Characterization. IEEE Transactions on Biomedical Engineering, 2013, 60, 1217-1224.	4.2	8
64	Temporal Diffeomorphic Free Form Deformation to Quantify Changes Induced by Left and Right Bundle Branch Block and Pacing. Lecture Notes in Computer Science, 2013, , 134-141.	1.3	4
65	Manifold Learning Characterization of Abnormal Myocardial Motion Patterns: Application to CRT-Induced Changes. Lecture Notes in Computer Science, 2013, , 450-457.	1.3	1
66	Patient-Specific Manifold Embedding of Multispectral Images Using Kernel Combinations. Lecture Notes in Computer Science, 2013, , 82-89.	1.3	1
67	Myocardial Motion Estimation Combining Tissue Doppler and B-mode Echocardiographic Images. Lecture Notes in Computer Science, 2013, 16, 484-491.	1.3	2
68	Endocardial motion estimation from electro-anatomical data. , 2012, , .		2
69	SPM to the heart: Mapping of 4D continuous velocities for motion abnormality quantification. , 2012, , .		11
70	Temporal Diffeomorphic Free Form Deformation (TDFFD) Applied to Motion and Deformation Quantification of Tagged MRI Sequences. Lecture Notes in Computer Science, 2012, , 68-77.	1.3	12
71	Atlas-Based Quantification of Myocardial Motion Abnormalities: Added-Value for Understanding the Effect of Cardiac Resynchronization Therapy. Ultrasound in Medicine and Biology, 2012, 38, 2186-2197.	1.5	8
72	Constrained manifold learning for the characterization of pathological deviations from normality. Medical Image Analysis, 2012, 16, 1532-1549.	11.6	33

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73	Temporal diffeomorphic free-form deformation: Application to motion and strain estimation from 3D echocardiography. <i>Medical Image Analysis</i> , 2012, 16, 427-450.	11.6	123
74	A spatiotemporal statistical atlas of motion for the quantification of abnormal myocardial tissue velocities. <i>Medical Image Analysis</i> , 2011, 15, 316-328.	11.6	68
75	Multiview Diffeomorphic Registration for Motion and Strain Estimation from 3D Ultrasound Sequences. <i>Lecture Notes in Computer Science</i> , 2011, , 375-383.	1.3	3
76	Characterizing Pathological Deviations from Normality Using Constrained Manifold-Learning. <i>Lecture Notes in Computer Science</i> , 2011, 14, 256-263.	1.3	4
77	Caracterización de la deformación miocárdica en pacientes con hipertrofia ventricular izquierda de diferente etiología mediante el uso de distribuciones de strain obtenidas de imágenes de resonancia magnética. <i>Revista Española De Cardiología</i> , 2010, 63, 1281-1291.	1.2	12
78	Temporal Diffeomorphic Free-Form Deformation for Strain Quantification in 3D-US Images. <i>Lecture Notes in Computer Science</i> , 2010, 13, 1-8.	1.3	16
79	Atlas Construction and Image Analysis Using Statistical Cardiac Models. <i>Lecture Notes in Computer Science</i> , 2010, , 1-13.	1.3	0
80	Atlas-Based Quantification of Myocardial Motion Abnormalities: Added-value for the Understanding of CRT Outcome?. <i>Lecture Notes in Computer Science</i> , 2010, , 65-74.	1.3	0
81	Image Fusion for Enhanced Visualization: A Variational Approach. <i>International Journal of Computer Vision</i> , 2009, 83, 1-11.	15.6	129
82	Multi-sequence Registration of Cine, Tagged and Delay-Enhancement MRI with Shift Correction and Steerable Pyramid-Based Detagging. <i>Lecture Notes in Computer Science</i> , 2009, , 330-338.	1.3	6
83	Towards content-oriented patent document processing. <i>World Patent Information</i> , 2008, 30, 21-33.	1.7	73
84	Combining Seminorms in Adaptive Lifting Schemes and Applications to Image Analysis and Compression. <i>Journal of Mathematical Imaging and Vision</i> , 2006, 25, 203-226.	1.3	16
85	ADAPTIVE WAVELETS FOR IMAGE COMPRESSION USING UPDATE LIFTING: QUANTIZATION AND ERROR ANALYSIS. <i>International Journal of Wavelets, Multiresolution and Information Processing</i> , 2006, 04, 41-63.	1.3	11
86	Modified M-band synthesis filter bank for fractional scalability of images. <i>IEEE Signal Processing Letters</i> , 2006, 13, 345-348.	3.6	9
87	Building nonredundant adaptive wavelets by update lifting. <i>Applied and Computational Harmonic Analysis</i> , 2005, 18, 252-281.	2.2	35
88	Gradient-driven update lifting for adaptive wavelets. <i>Signal Processing: Image Communication</i> , 2005, 20, 813-831.	3.2	15
89	Adaptive lifting schemes combining seminorms for lossless image compression. , 2005, , .		11
90	A general framework for multiresolution image fusion: from pixels to regions. <i>Information Fusion</i> , 2003, 4, 259-280.	19.1	692

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91	Adaptive lifting schemes with perfect reconstruction. IEEE Transactions on Signal Processing, 2002, 50, 1620-1630.	5.3	90
92	Adaptive update lifting with a decision rule based on derivative filters. IEEE Signal Processing Letters, 2002, 9, 329-332.	3.6	47
93	A region-based multiresolution image fusion algorithm. , 0, , .		63