Denis Friboulet

List of Publications by Year
in descending order

105 papers	1,948 citations	361045 20 h-index	288905 40 g-index
107 all docs	107 docs citations	107 times ranked	1653 citing authors

#	Article	IF	Citations
1	Variational B-Spline Level-Set: A Linear Filtering Approach for Fast Deformable Model Evolution. IEEE Transactions on Image Processing, 2009, 18, 1179-1191.	6.0	153
2	Fast automatic myocardial segmentation in 4D cine CMR datasets. Medical Image Analysis, 2014, 18, 1115-1131.	7.0	126
3	Pre-beamformed RF signal reconstruction in medical ultrasound using compressive sensing. Ultrasonics, 2013, 53, 525-533.	2.1	109
4	B-Spline Explicit Active Surfaces: An Efficient Framework for Real-Time 3-D Region-Based Segmentation. IEEE Transactions on Image Processing, 2012, 21, 241-251.	6.0	107
5	A Virtual Imaging Platform for Multi-Modality Medical Image Simulation. IEEE Transactions on Medical Imaging, 2013, 32, 110-118.	5.4	92
6	High-Quality Plane Wave Compounding Using Convolutional Neural Networks. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2017, 64, 1637-1639.	1.7	87
7	Compressed Sensing Reconstruction of 3D Ultrasound Data Using Dictionary Learning and Line-Wise Subsampling. IEEE Transactions on Medical Imaging, 2015, 34, 2467-2477.	5.4	66
8	Detection of the whole myocardium in 2D-echocardiography for multiple orientations using a geometrically constrained level-set. Medical Image Analysis, 2012, 16, 386-401.	7.0	62
9	Fast and Fully Automatic 3-D Echocardiographic Segmentation Using B-Spline Explicit Active Surfaces: Feasibility Study and Validation in a Clinical Setting. Ultrasound in Medicine and Biology, 2013, 39, 89-101.	0.7	58
10	A level set framework with a shape and motion prior for segmentation and region tracking in echocardiography. Medical Image Analysis, 2006, 10, 162-177.	7.0	57
11	Two-dimensional spatial and temporal displacement and deformation field fitting from cardiac magnetic resonance tagging. Medical Image Analysis, 2000, 4, 253-268.	7.0	55
12	Compactly Supported Radial Basis Functions Based Collocation Method for Level-Set Evolution in Image Segmentation. IEEE Transactions on Image Processing, 2007, 16, 1873-1887.	6.0	54
13	Towards ultrasound cardiac image segmentation based on the radiofrequency signal. Medical Image Analysis, 2003, 7, 353-367.	7.0	49
14	Creaseg: A free software for the evaluation of image segmentation algorithms based on level-set. , 2010, , .		49
15	Transverse oscillations for tissue motion estimation. Ultrasonics, 2010, 50, 548-555.	2.1	47
16	Tracking geometrical descriptors on 3-D deformable surfaces: application to the left-ventricular surface of the heart. IEEE Transactions on Medical Imaging, 1997, 16, 392-404.	5.4	46
17	Compressive sensing in medical ultrasound. , 2012, , .		43
18	Estimation of three-dimensional cardiac velocity fields: assessment of a differential method and application to three-dimensional CT data. Medical Image Analysis, 1997, 1, 245-261.	7.0	41

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19	Extension of Fourier-Based Techniques for Ultrafast Imaging in Ultrasound With Diverging Waves. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 2125-2137.	1.7	35
20	A Sparse Reconstruction Framework for Fourier-Based Plane-Wave Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 2092-2106.	1.7	32
21	A New Technique for the Estimation of Cardiac Motion in Echocardiography Based on Transverse Oscillations: A Preliminary Evaluation In Silico and a Feasibility Demonstration In Vivo. IEEE Transactions on Medical Imaging, 2014, 33, 1148-1162.	5.4	30
22	Compressive sensing for raw RF signals reconstruction in ultrasound. , 2010, , .		27
23	Statistics of the radio-frequency signal based on K distribution with application to echocardiography. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 1689-1694.	1.7	25
24	Assessment and visualization of the curvature of the left ventricle from 3D medical images. Computerized Medical Imaging and Graphics, 1993, 17, 257-262.	3.5	20
25	Simulation of realistic echocardiographic sequences for ground-truth validation of motion estimation. , 2012, , .		20
26	Compressed Sensing Doppler Ultrasound Reconstruction Using Block Sparse Bayesian Learning. IEEE Transactions on Medical Imaging, 2016, 35, 978-987.	5.4	20
27	Quantification of left ventricular volume and global function using a fast automated segmentation tool: validation in a clinical setting. International Journal of Cardiovascular Imaging, 2013, 29, 309-316.	0.7	19
28	The Virtual Physiological Human Tool Kit. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 3925-3936.	1.6	18
29	Assessment of a model for overall left ventricular three-dimensional motion from MRI data. International Journal of Cardiovascular Imaging, 1992, 8, 175-190.	0.2	17
30	Whole myocardium tracking in 2D-echocardiography in multiple orientations using a motion constrained level-set. Medical Image Analysis, 2014, 18, 500-514.	7.0	17
31	Real-time 3D interactive segmentation of echocardiographic data through user-based deformation of B-spline explicit active surfaces. Computerized Medical Imaging and Graphics, 2014, 38, 57-67.	3.5	17
32	Reconstruction for Diverging-Wave Imaging Using Deep Convolutional Neural Networks. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 2481-2492.	1.7	17
33	Blood Velocity Estimation Using Compressive Sensing. IEEE Transactions on Medical Imaging, 2013, 32, 1979-1988.	5.4	16
34	Processing radio frequency ultrasound images: a robust method for local spectral features estimation by a spatially constrained parametric approach. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2002, 49, 1704-1719.	1.7	15
35	Complex Convolutional Neural Networks for Ultrafast Ultrasound Imaging Reconstruction From In-Phase/Quadrature Signal. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 592-603.	1.7	15
36	Medical ultrasound image reconstruction using distributed compressive sampling. , 2013, , .		14

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37	Ultrasound Fourier slice imaging: a novel approach for ultrafast imaging technique. , 2014, , .		14
38	Fast Tracking of the Left Ventricle Using Global Anatomical Affine Optical Flow and Local Recursive Block Matching. , 2014, , .		13
39	Tangential oscillations for motion estimation in echocardiography. , 2008, , .		12
40	Tangential sound field oscillations for 2D motion estimation in echocardiography. , 2009, , .		12
41	Using a geometric formulation of annular-like shape priors for constraining variational level-sets. Pattern Recognition Letters, 2011, 32, 1240-1249.	2.6	12
42	Left-Atrial Segmentation From 3-D Ultrasound Using B-Spline Explicit Active Surfaces With Scale Uncoupling. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 212-221.	1.7	12
43	Statistical Modeling of the Radio-Frequency Signal for Partially- and Fully-Developed Speckle Based on a Generalized Gaussian Model with Application to Echocardiography. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 2189-2194.	1.7	11
44	Analysis of motion tracking in echocardiographic image sequences: Influence of system geometry and point-spread function. Ultrasonics, 2010, 50, 373-386.	2.1	11
45	OntoVIP: An ontology for the annotation of object models used for medical image simulation. Journal of Biomedical Informatics, 2014, 52, 279-292.	2.5	11
46	Variational B-spline level-set method for fast image segmentation. , 2008, , .		10
47	Nonlinear propagation effects on broadband attenuation measurements and its implications for ultrasonic tissue characterization. Journal of the Acoustical Society of America, 1999, 106, 1126-1133.	0.5	9
48	Prostate segmentation in echographic images: A variational approach using deformable super-ellipse and rayleigh distribution. , 2008, , .		9
49	Fast Left Ventricle Tracking in 3D Echocardiographic Data Using Anatomical Affine Optical Flow. Lecture Notes in Computer Science, 2013, , 191-199.	1.0	9
50	A Sparse regularization approach for ultrafast ultrasound imaging. , 2015, , .		9
51	Fast Diverging Wave Imaging Using Deep-Learning-Based Compounding. , 2019, , .		7
52	Multi-modality medical image simulation of biological models with the Virtual Imaging Platform (VIP). , 2011, , .		6
53	Compressive sensing ultrasound imaging using overcomplete dictionaries. , 2013, , .		6
54	Segmentation of Myocardial Regions in Echocardiography Using the Statistics of the Radio-Frequency Signal. , 2007, , 433-442.		6

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55	Transverse oscillations for tissue motion estimation. Physics Procedia, 2010, 3, 235-244.	1.2	5
56	Blood velocity estimation using compressed sensing. , 2011, , .		5
57	Sharing object models for multi-modality medical image simulation: A semantic approach. , 2011, , .		5
58	Fast and fully automatic 3D echocardiographic segmentation using B-spline explicit active surfaces. , 2012, , .		5
59	Fast Fully Automatic Segmentation of the Myocardium in 2D Cine MR Images. Lecture Notes in Computer Science, 2013, , 71-79.	1.0	5
60	Complex Convolutional Neural Networks for Fast Diverging Wave Imaging. , 2020, , .		5
61	Motion decorrelation in echocardiography: Analysis from a realistic simulation. , 2008, , .		4
62	Level-set segmentation of myocardium and epicardium in ultrasound images using localized Bhattacharyya distance. , 2009, , .		4
63	Monogenic phase based myocardial motion analysis from cardiac ultrasound with transverse oscillations. , 2012, , .		4
64	A GPU level-set segmentation framework for 3D Echocardiography. , 2012, , .		4
65	B-spline explicit active tracking of surfaces (BEATS): Application to real-time 3D segmentation and tracking of the left ventricle in 3D echocardiography. , 2012, , .		4
66	Multi-modality image simulation with the Virtual Imaging Platform: Illustration on cardiac echography and MRI. , 2012, , .		4
67	Extension of Ultrasound Fourier Slice Imaging theory to sectorial acquisition. , 2015, , .		4
68	Comparison Between Multiline Transmission and Diverging Wave Imaging: Assessment of Image Quality and Motion Estimation Accuracy. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 1560-1572.	1.7	4
69	Coupled B-spline active geometric functions for myocardial segmentation: A localized region-based approach. , 2010, , .		3
70	Transverse oscillations beamformer design for sector scan using back-propagation. , 2012, , .		3
71	OntoVIP: An Ontology for the Annotation of Object Models Used for Medical Image Simulation. , 2012, , .		3
72	Fast medical image segmentation through an approximation of narrow-band B-spline level-set and multiresolution. , 2009, , .		2

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73	Fast 3D echocardiographic segmentation using B-Spline Explicit Active Surfaces: A validation study in a clinical setting. , 2011, , .		2
74	Hybrid energy approach for real-time b-spline explicit active tracking of surfaces (heartBEATS). , 2013, , .		2
75	Back-Propagation Beamformer Design for Motion Estimation in Echocardiography. Ultrasonic Imaging, 2015, 37, 179-204.	1.4	2
76	heartBEATS: A hybrid energy approach for real-time B-spline explicit active tracking of surfaces. Computerized Medical Imaging and Graphics, 2017, 62, 26-33.	3.5	2
77	<title>Three-dimensional curvature features of the left ventricle from CT volumic images</title>. , 1992, , .		1
78	An Autoregressive Model-Based Method for Contrast Agent Detection in Ultrasound Radiofrequency Images. Ultrasonic Imaging, 2005, 27, 37-53.	1.4	1
79	P5C-3 Field Simulation Parameters Design for Realistic Statistical Parameters of Radio - Frequency Ultrasound Images. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	1
80	Autoregressive modeling application for vascular zones detection in the contrast echographic images. , 2007, , .		1
81	Classification of Contrast Ultrasound Images using Autoregressive Model Coupled to Gaussian Mixture Model. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 331-4.	0.5	1
82	Influence of system geometry on motion tracking in echocardiographic image sequences. , 2009, , .		1
83	Multiview myocardial segmentation in echocardiographic images using a piecewise parametric shape prior. , 2011, , .		1
84	Sparse regularization methods in ultrafast ultrasound imaging. , 2016, , .		1
85	Multi-line transmission for 3D ultrasound imaging: An experimental study. , 2017, , .		1
86	Inverse problem approaches for coded high frame rate ultrasound imaging. , 2017, , .		1
87	Towards 3-D tissue doppler ultrafast echocardiography: An in vitro study. , 2017, , .		1
88	Vortex Ring Phantom for Investigation of Ultrasound Vector Flow Imaging. , 2018, , .		1
89	<title>Model of the left ventricle 3-D global motion: application to MRI data</title>. , 1991, , .		0
90	P2F-5 Statistical Modeling of the Radio-Frequency Signal in Echocardiographic Images Using Modified K-Distribution and Generalized Generalized Gaussian Distribution. , 2006, , .		0

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91	Using a geometric formulation of annular-like shape priors for constraining variational level-sets. , 2010, , .		0
92	Real-time region-based segmentation of 3D inhomogeneous objects in medical images. , 2011, , .		0
93	Towards real-time 3D region-based segmentation: B-spline explicit active surfaces. , 2011, , .		0
94	An integrated solution for semi-automatic segmentation of volumetric ultrasound data based on B-spline explicit active surfaces. , 2012, , .		0
95	Towards online real-time strain estimation in volumetric us data: Feasibility study and initial clinical validation. , 2013, , .		0
96	Speckle decorrelation of motion in Ultrasound Fourier images. , 2014, , .		0
97	Semi-automatic left-atrial segmentation from volumetric ultrasound using B-spline explicit active surfaces. , 2014, , .		0
98	Compressed sensing reconstruction of line-wise sub-sampled 3D echographic images based on dictionary learning: an experimental study. , 2015, , .		0
99	Sub-sampled Doppler ultrasound reconstruction using block sparse Bayesian learning. , 2015, , .		0
100	A measure of confidence for Phase-Based Motion Estimator applied to 2D US-TO images. , 2016, , .		0
101	A Fourier-based formalism for 3D ultrafast imaging with diverging waves. , 2016, , .		0
102	Simultaneous coded plane wave imaging: Implementation on a research echograph. , 2017, , .		0
103	Experimental Cross-Talk Reduction for 3D Multi Line Transmission. , 2018, , .		0
104	Jointly Optimized Modulatiion/Filtering Technique for Pseudo-Orthogonal Binary Sequences. , 2018, , .		0
105	A Resolution Enhancement Technique for Ultrafast Coded Medical Ultrasound. , 2018, , .		0