Olivier Bernard

List of Publications by Year
in descending order

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223 papers	11,815 citations	34105 52 h-index	30922 102 g-index
226 all docs	226 docs citations	226 times ranked	9772 citing authors

#	Article	IF	Citations
1	Life-Cycle Assessment of Biodiesel Production from Microalgae. Environmental Science & Technology, 2009, 43, 6475-6481.	10.0	1,239
2	Anaerobic digestion of microalgae as a necessary step to make microalgal biodiesel sustainable. Biotechnology Advances, 2009, 27, 409-416.	11.7	1,002
3	Deep Learning Techniques for Automatic MRI Cardiac Multi-Structures Segmentation and Diagnosis: Is the Problem Solved?. IEEE Transactions on Medical Imaging, 2018, 37, 2514-2525.	8.9	926
4	Dynamical model development and parameter identification for an anaerobic wastewater treatment process. Biotechnology and Bioengineering, 2001, 75, 424-438.	3.3	485
5	Interval observers for linear time-invariant systems with disturbances. Automatica, 2011, 47, 140-147.	5.0	365
6	Temperature effect on microalgae: a crucial factor for outdoor production. Reviews in Environmental Science and Biotechnology, 2013, 12, 153-164.	8.1	332
7	Deep Learning for Segmentation Using an Open Large-Scale Dataset in 2D Echocardiography. IEEE Transactions on Medical Imaging, 2019, 38, 2198-2210.	8.9	292
8	The use of fluorescent Nile red and BODIPY for lipid measurement in microalgae. Biotechnology for Biofuels, 2015, 8, 42.	6.2	280
9	Hurdles and challenges for modelling and control of microalgae for CO2 mitigation and biofuel production. Journal of Process Control, 2011, 21, 1378-1389.	3.3	273
10	Validation of a simple model accounting for light and temperature effect on microalgal growth. Bioresource Technology, 2012, 123, 520-527.	9.6	224
11	Near optimal interval observers bundle for uncertain bioreactors. Automatica, 2009, 45, 291-295.	5.0	184
12	Closed loop observers bundle for uncertain biotechnological models. Journal of Process Control, 2004, 14, 765-774.	3.3	178
13	Nonlinear adaptive control for bioreactors with unknown kinetics. Automatica, 2004, 40, 1379-1385.	5.0	154
14	Variational B-Spline Level-Set: A Linear Filtering Approach for Fast Deformable Model Evolution. IEEE Transactions on Image Processing, 2009, 18, 1179-1191.	9.8	153
15	Modelling neutral lipid production by the microalga Isochrysis aff. galbana under nitrogen limitation. Bioresource Technology, 2011, 102, 142-149.	9.6	141
16	Biodiesel from microalgae â€“ Life cycle assessment and recommendations for potential improvements. Renewable Energy, 2014, 71, 525-533.	8.9	129
17	Fast automatic myocardial segmentation in 4D cine CMR datasets. Medical Image Analysis, 2014, 18, 1115-1131.	11.6	126
18	Asymptotically Stable Interval Observers for Planar Systems With Complex Poles. IEEE Transactions on Automatic Control, 2010, 55, 523-527.	5.7	123

#	Article	IF	Citations
19	Proposed Requirements for Cardiovascular Imaging-Related Machine Learning Evaluation (PRIME): A Checklist. JACC: Cardiovascular Imaging, 2020, 13, 2017-2035.	5.3	123
20	Instrumentation and control of anaerobic digestion processes: a review and some research challenges. Reviews in Environmental Science and Biotechnology, 2015, 14, 615-648.	8.1	118
21	Screening and selection of growth-promoting bacteria for Dunaliella cultures. Algal Research, 2013, 2, 212-222.	4.6	111
22	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.	9.8	107
23	Modeling continuous cultures of microalgae colimited by nitrogen and phosphorus. Journal of Theoretical Biology, 2010, 265, 443-454.	1.7	93
24	A Virtual Imaging Platform for Multi-Modality Medical Image Simulation. IEEE Transactions on Medical Imaging, 2013, 32, 110-118.	8.9	92
25	Influence of temperature on Chlorella vulgaris growth and mortality rates in a photobioreactor. Algal Research, 2016, 18, 352-359.	4.6	92
26	A Pipeline for the Generation of Realistic 3D Synthetic Echocardiographic Sequences: Methodology and Open-Access Database. IEEE Transactions on Medical Imaging, 2015, 34, 1436-1451.	8.9	91
27	Standardized Evaluation System for Left Ventricular Segmentation Algorithms in 3D Echocardiography. IEEE Transactions on Medical Imaging, 2016, 35, 967-977.	8.9	82
28	Recommendations for Life Cycle Assessment of algal fuels. Applied Energy, 2015, 154, 1089-1102.	10.1	78
29	Lessons learnt from 15 years of ICA in anaerobic digesters. Water Science and Technology, 2006, 53, 25-33.	2.5	76
30	Design and study of a risk management criterion for an unstable anaerobic wastewater treatment process. Journal of Process Control, 2008, 18, 71-79.	3.3	72
31	Myocardial Motion Estimation From Medical Images Using the Monogenic Signal. IEEE Transactions on Image Processing, 2013, 22, 1084-1095.	9.8	72
32	Cardiac Segmentation With Strong Anatomical Guarantees. IEEE Transactions on Medical Imaging, 2020, 39, 3703-3713.	8.9	72
33	Nonlinear observers for a class of biological systems: application to validation of a phytoplanktonic growth model. IEEE Transactions on Automatic Control, 1998, 43, 1056-1065.	5.7	71
34	Modeling anaerobic digestion of microalgae using ADM1. Bioresource Technology, 2011, 102, 6823-6829.	9.6	69
35	Improving continuousâ€“discrete interval observers with application to microalgae-based bioprocesses. Journal of Process Control, 2009, 19, 1182-1190.	3.3	68
36	Experiment selection for the discrimination of semi-quantitative models of dynamical systems. Artificial Intelligence, 2006, 170, 472-506.	5.8	67

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37	Automated segmentation of a motion mask to preserve sliding motion in deformable registration of thoracic CT. Medical Physics, 2012, 39, 1006-1015.	3.0	67
38	Compressed Sensing Reconstruction of 3D Ultrasound Data Using Dictionary Learning and Line-Wise Subsampling. IEEE Transactions on Medical Imaging, 2015, 34, 2467-2477.	8.9	66
39	Robust interval observers for global Lipschitz uncertain chaotic systems. Systems and Control Letters, 2010, 59, 687-694.	2.3	64
40	Modeling the impact of high temperatures on microalgal viability and photosynthetic activity. Biotechnology for Biofuels, 2017, 10, 136.	6.2	63
41	Hybrid modelling of biotechnological processes using neural networks. Control Engineering Practice, 2000, 8, 821-827.	5.5	62
42	On the estimation of the pseudo-stoichiometric matrix for macroscopic mass balance modelling of biotechnological processes. Mathematical Biosciences, 2005, 193, 51-77.	1.9	62
43	Detection of the whole myocardium in 2D-echocardiography for multiple orientations using a geometrically constrained level-set. Medical Image Analysis, 2012, 16, 386-401.	11.6	62
44	DIEL VARIATIONS OF CARBOHYDRATES AND NEUTRAL LIPIDS IN NITROGENâ€SUFFICIENT AND NITROGENâ€STARVED CYCLOSTAT CULTURES OF ISOCHRYSIS SP.¹. Journal of Phycology, 2012, 48, 966-975.	2.3	59
45	DRUM: A New Framework for Metabolic Modeling under Non-Balanced Growth. Application to the Carbon Metabolism of Unicellular Microalgae. PLoS ONE, 2014, 9, e104499.	2.5	59
46	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.	1.5	58
47	A level set framework with a shape and motion prior for segmentation and region tracking in echocardiography. Medical Image Analysis, 2006, 10, 162-177.	11.6	57
48	Microalgae and cyanobacteria modeling in water resource recovery facilities: A critical review. Water Research X, 2019, 2, 100024.	6.1	57
49	A state of the art of metabolic networks of unicellular microalgae and cyanobacteria for biofuel production. Metabolic Engineering, 2015, 30, 49-60.	7.0	56
50	Temperature is a key factor in Micromonasâ€“virus interactions. ISME Journal, 2017, 11, 601-612.	9.8	56
51	Fast and Fully Automatic Left Ventricular Segmentation and Tracking in Echocardiography Using Shape-Based B-Spline Explicit Active Surfaces. IEEE Transactions on Medical Imaging, 2017, 36, 2287-2296.	8.9	56
52	Transient behavior of biological loop models with application to the Droop model. Mathematical Biosciences, 1995, 127, 19-43.	1.9	54
53	Compactly Supported Radial Basis Functions Based Collocation Method for Level-Set Evolution in Image Segmentation. IEEE Transactions on Image Processing, 2007, 16, 1873-1887.	9.8	54
54	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

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55	ALBA: A comprehensive growth model to optimize algae-bacteria wastewater treatment in raceway ponds. Water Research, 2021, 190, 116734.	11.3	53
56	NEUTRAL LIPID AND CARBOHYDRATE PRODUCTIVITIES AS A RESPONSE TO NITROGEN STATUS IN ISOCHRYSIS SP. (Tâ€ISO; HAPTOPHYCEAE): STARVATION VERSUS LIMITATION¹. Journal of Phycology, 2012, 48, 647-656.	2.3	52
57	Creaseg: A free software for the evaluation of image segmentation algorithms based on level-set. , 2010, , .		49
58	Modeling the temperature effect on the specific growth rate of phytoplankton: a review. Reviews in Environmental Science and Biotechnology, 2017, 16, 625-645.	8.1	48
59	Real-Time Automatic Ejection Fraction and Foreshortening Detection Using Deep Learning. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 2595-2604.	3.0	48
60	Mathematical modeling of unicellular microalgae and cyanobacteria metabolism for biofuel production. Current Opinion in Biotechnology, 2015, 33, 198-205.	6.6	45
61	Identification of reaction networks for bioprocesses: determination of a partially unknown pseudo-stoichiometric matrix. Bioprocess and Biosystems Engineering, 2005, 27, 293-301.	3.4	43
62	Can we assess the model complexity for a bioprocess: theory and example of the anaerobic digestion process. Water Science and Technology, 2006, 53, 85-92.	2.5	43
63	Compressive sensing in medical ultrasound. , 2012, , .		43
64	Exponentially Stable Interval Observers for Linear Systems with Delay. SIAM Journal on Control and Optimization, 2012, 50, 286-305.	2.1	43
65	Coupling and uncoupling of triglyceride and beta-carotene production by Dunaliella salina under nitrogen limitation and starvation. Biotechnology for Biofuels, 2017, 10, 25.	6.2	43
66	A mechanistic modelling and data assimilation approach to estimate the carbon/chlorophyll and carbon/nitrogen ratios in a coupled hydrodynamical-biological model. Nonlinear Processes in Geophysics, 2004, 11, 515-533.	1.3	42
67	Dynamic coupling of photoacclimation and photoinhibition in a model of microalgae growth. Journal of Theoretical Biology, 2016, 390, 61-72.	1.7	42
68	Influence of CO₂ and nitrogen limitation on the coccolith volume of <I>Emiliania huxleyi</I> (Haptophyta). Biogeosciences, 2012, 9, 4155-4167.	3.3	40
69	Detailed Evaluation of Five 3D Speckle Tracking Algorithms Using Synthetic Echocardiographic Recordings. IEEE Transactions on Medical Imaging, 2016, 35, 1915-1926.	8.9	40
70	Phytoplankton growth formulation in marine ecosystem models: Should we take into account photo-acclimation and variable stoichiometry in oligotrophic areas?. Journal of Marine Systems, 2013, 125, 29-40.	2.1	38
71	Optimal strategies for biomass productivity maximization in a photobioreactor using natural light. Automatica, 2014, 50, 359-368.	5.0	38
72	Modelling of Microalgae Culture Systems with Applications to Control and Optimization. Advances in Biochemical Engineering/Biotechnology, 2015, 153, 59-87.	1.1	36

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73	Theory of turbid microalgae cultures. Journal of Theoretical Biology, 2018, 456, 190-200.	1.7	36
74	Non-linear qualitative signal processing for biological systems: application to the algal growth in bioreactors. Mathematical Biosciences, 1999, 157, 357-372.	1.9	35
75	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.	3.0	35
76	Picoeukaryotes of the Micromonas genus: sentinels of a warming ocean. ISME Journal, 2019, 13, 132-146.	9.8	35
77	Global qualitative description of a class of nonlinear dynamical systems. Artificial Intelligence, 2002, 136, 29-59.	5.8	34
78	Threeâ€reaction model for the anaerobic digestion of microalgae. Biotechnology and Bioengineering, 2012, 109, 415-425.	3.3	34
79	Longâ€term adaptive response to highâ€frequency light signals in the unicellular photosynthetic eukaryote Dunaliella salina. Biotechnology and Bioengineering, 2015, 112, 1111-1121.	3.3	33
80	Realistic Vendor-Specific Synthetic Ultrasound Data for Quality Assurance of 2-D Speckle Tracking Echocardiography: Simulation Pipeline and Open Access Database. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 411-422.	3.0	33
81	Continuous â€•discrete interval observers for monitoring microalgae cultures. Biotechnology Progress, 2009, 25, 667-675.	2.6	32
82	Optimizing microalgal production in raceway systems. Biotechnology Progress, 2013, 29, 543-552.	2.6	32
83	A Sparse Reconstruction Framework for Fourier-Based Plane-Wave Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 2092-2106.	3.0	32
84	Reducing the Anaerobic Digestion Model No. 1 for its application to an industrial wastewater treatment plant treating winery effluent wastewater. Bioresource Technology, 2013, 132, 244-253.	9.6	31
85	A Framework for the Generation of Realistic Synthetic Cardiac Ultrasound and Magnetic Resonance Imaging Sequences From the Same Virtual Patients. IEEE Transactions on Medical Imaging, 2018, 37, 741-754.	8.9	31
86	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.	8.9	30
87	A restoration framework for ultrasonic tissue characterization. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 2344-2360.	3.0	29
88	Description of partition equilibria for uranyl nitrate, nitric acid and water extracted by tributyl phosphate in dodecane. Hydrometallurgy, 2011, 109, 97-105.	4.3	29
89	Dynamic metabolic modeling of heterotrophic and mixotrophic microalgal growth on fermentative wastes. PLoS Computational Biology, 2017, 13, e1005590.	3.2	29
90	Concomitant effects of light and temperature diel variations on the growth rate and lipid production of Dunaliella salina. Algal Research, 2016, 14, 72-78.	4.6	28

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91	Getting the most out of it: Optimal experiments for parameter estimation of microalgae growth models. Journal of Process Control, 2014, 24, 991-1001.	3.3	27
92	Nonlinear control for algae growth models in the chemostat. Bioprocess and Biosystems Engineering, 2005, 27, 319-327.	3.4	26
93	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.	3.0	25
94	The effect of photosynthesis time scales on microalgae productivity. Bioprocess and Biosystems Engineering, 2014, 37, 17-25.	3.4	25
95	Exploiting meteorological forecasts for the optimal operation of algal ponds. Journal of Process Control, 2017, 55, 55-65.	3.3	24
96	Cardiac MRI Segmentation with Strong Anatomical Guarantees. Lecture Notes in Computer Science, 2019, , 632-640.	1.3	24
97	Continuous selection pressure to improve temperature acclimation of Tisochrysis lutea. PLoS ONE, 2017, 12, e0183547.	2.5	24
98	LU-Net: A Multistage Attention Network to Improve the Robustness of Segmentation of Left Ventricular Structures in 2-D Echocardiography. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 2519-2530.	3.0	23
99	Software sensors to monitor the dynamics of microbial communities: application to anaerobic digestion. Acta Biotheoretica, 2000, 48, 197-205.	1.5	22
100	Effect of gaseous cement industry effluents on four species of microalgae. Bioresource Technology, 2013, 143, 353-359.	9.6	22
101	How do microalgae perceive light in a high-rate pond? Towards more realistic Lagrangian experiments. Royal Society Open Science, 2018, 5, 180523.	2.4	22
102	Stability analysis of a wastewater treatment plantwith saturated control. Water Science and Technology, 2006, 53, 149-157.	2.5	21
103	A Simplified Design for Strict Lyapunov Functions Under Matrosov Conditions. IEEE Transactions on Automatic Control, 2009, 54, 177-183.	5.7	21
104	Modelling microalgae growth in nitrogen limited photobiorector for estimating biomass, carbohydrate and neutral lipid productivities. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10591-10596.	0.4	21
105	Compressed delay-and-sum beamforming for ultrafast ultrasound imaging. , 2016, , .		21
106	Simulation of realistic echocardiographic sequences for ground-truth validation of motion estimation. , 2012, , .		20
107	ISS interval observers for nonlinear systems transformed into triangular systems. International Journal of Robust and Nonlinear Control, 2014, 24, 1241-1261.	3.7	20
108	A Pilot Study on Convolutional Neural Networks for Motion Estimation From Ultrasound Images. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 2565-2573.	3.0	20

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109	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.	1.5	19
110	Monogenic Phase Based Optical Flow Computation for Myocardial Motion Analysis in 3D Echocardiography. Lecture Notes in Computer Science, 2013, , 159-168.	1.3	18
111	A non-linear software sensor to monitor the internal nitrogen quota of phytoplanktonic cells. Oceanologica Acta: European Journal of Oceanology - Revue Europeene De Oceanologie, 2001, 24, 435-442.	0.7	17
112	Whole myocardium tracking in 2D-echocardiography in multiple orientations using a motion constrained level-set. Medical Image Analysis, 2014, 18, 500-514.	11.6	17
113	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.	5.8	17
114	A time-space model for the growth of microalgae biofilms for biofuel production. Journal of Theoretical Biology, 2017, 432, 55-79.	1.7	17
115	Microalgal biomass surface productivity optimization based on a photobioreactor model. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 180-185.	0.4	16
116	Blood Velocity Estimation Using Compressive Sensing. IEEE Transactions on Medical Imaging, 2013, 32, 1979-1988.	8.9	16
117	Life-Cycle Assessment of Microalgal-Based Biofuels. , 2014, , 287-312.		15
118	Estimation of neutral lipid and carbohydrate quotas in microalgae using adaptive interval observers. Bioprocess and Biosystems Engineering, 2014, 37, 51-61.	3.4	15
119	3D harmonic phase tracking with anatomical regularization. Medical Image Analysis, 2015, 26, 70-81.	11.6	15
120	Optimizing CO2 transfer in algal open ponds. Algal Research, 2018, 35, 530-538.	4.6	15
121	The impact of light supply to moving photosynthetic biofilms. Algal Research, 2019, 44, 101674.	4.6	15
122	Medical ultrasound image reconstruction using distributed compressive sampling. , 2013, , .		14
123	A 2D model for hydrodynamics and biology coupling applied to algae growth simulations. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 1387-1412.	1.9	14
124	Ultrasound Fourier slice imaging: a novel approach for ultrafast imaging technique. , 2014, , .		14
125	Modelling the effect of temperature on phytoplankton growth across the global ocean. IFAC-PapersOnLine, 2015, 48, 228-233.	0.9	14
126	Competition between phytoplankton and bacteria: exclusion and coexistence. Journal of Mathematical Biology, 2015, 70, 959-1006.	1.9	14

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127	dynamic Flux Balance Analysis of the Metabolism of Microalgae under a Diurnal Light Cycle. IFAC-PapersOnLine, 2016, 49, 791-796.	0.9	14
128	Calibration of a productivity model for the microalgae Dunaliella salina accounting for light and temperature. Algal Research, 2017, 21, 156-160.	4.6	14
129	Full-scale validation of an algal productivity model including nitrogen limitation. Algal Research, 2018, 31, 377-386.	4.6	14
130	Determination of the adequate minimum model complexity required in anaerobic bioprocesses using experimental data. Journal of Chemical Technology and Biotechnology, 2008, 83, 1694-1702.	3.2	13
131	Advanced dynamical risk analysis for monitoring anaerobic digestion process. Biotechnology Progress, 2009, 25, 643-653.	2.6	13
132	Phytoplankton plasticity drives large variability in carbon fixation efficiency. Geophysical Research Letters, 2014, 41, 8994-9000.	4.0	13
133	Cardiac Chamber Volumetric Assessment Using 3D Ultrasound - A Review. Current Pharmaceutical Design, 2015, 22, 105-121.	1.9	13
134	Adaptive control of light attenuation for optimizing microalgae production. Journal of Process Control, 2015, 30, 117-124.	3.3	13
135	Production of a methyl ester from the microalgae Nannochloropsis grown in raceways on the French west coast. Fuel, 2015, 153, 640-649.	6.4	13
136	Modeling the Influence of Temperature, Light Intensity and Oxygen Concentration on Microalgal Growth Rate. Processes, 2021, 9, 496.	2.8	13
137	Fast Tracking of the Left Ventricle Using Global Anatomical Affine Optical Flow and Local Recursive Block Matching. , 2014, , .		13
138	Using a geometric formulation of annular-like shape priors for constraining variational level-sets. Pattern Recognition Letters, 2011, 32, 1240-1249.	4.2	12
139	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.	3.0	12
140	RU-Net: A refining segmentation network for 2D echocardiography. , 2019, , .		12
141	Probabilistic observers for a class of uncertain biological processes. International Journal of Robust and Nonlinear Control, 2006, 16, 157-171.	3.7	11
142	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.	3.0	11
143	Analysis of motion tracking in echocardiographic image sequences: Influence of system geometry and point-spread function. Ultrasonics, 2010, 50, 373-386.	3.9	11
144	Segmentation of apical long axis, four- and two-chamber views using deep neural networks. , 2019, , .		11

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145	Motion Estimation by Deep Learning in 2D Echocardiography: Synthetic Dataset and Validation. IEEE Transactions on Medical Imaging, 2022, 41, 1911-1924.	8.9	11
146	Optimization of a photobioreactor biomass production using natural light. , 2010, , .		10
147	Modelling the dynamics of carbonâ€“nitrogen metabolism in the unicellular diazotrophic cyanobacterium Crocosphaera watsonii WH8501, under variable light regimes. Ecological Modelling, 2014, 291, 121-133.	2.5	10
148	Standardized Delineation of Endocardial Boundaries in Three-Dimensional Left VentricularÂEchocardiograms. Journal of the American Society of Echocardiography, 2017, 30, 1059-1069.	2.8	10
149	Maximizing microalgae productivity in a light-limited chemostat âž âžThis work was supported by the CONICYT doctoral grant (Carlos MartÃnez), and by the Phycover (ANR-14-CE04-0011) and IPL Algae in silico (INRIA) projects.. IFAC-PapersOnLine, 2018, 51, 735-740.	0.9	10
150	Meteorological Data-Based Optimal Control Strategy for Microalgae Cultivation in Open Pond Systems. Complexity, 2019, 2019, 1-12.	1.6	10
151	Fast Left Ventricle Tracking in 3D Echocardiographic Data Using Anatomical Affine Optical Flow. Lecture Notes in Computer Science, 2013, , 191-199.	1.3	9
152	A Sparse regularization approach for ultrafast ultrasound imaging. , 2015, , .		9
153	Maximizing microalgae productivity by shading outdoor cultures * *This work was supported by the CONICYT doctoral grant (Carlos MartÃnez), and by the Phycover (ANR-14-CE04-0011) and Purple Sun (ANR-13-BIME-0004) projects. F. Mairet is grateful to â€œFMJH Program Gaspard Monge in optimization and operation researchâ€•. IFAC-PapersOnLine, 2017, 50, 8734-8739.	0.9	9
154	Interval observer with near optimal adaptation dynamics. Application to the estimation of lipid quota in microalgae. International Journal of Robust and Nonlinear Control, 2014, 24, 1142-1157.	3.7	8
155	Metabolic modeling of C. sorokiniana diauxic heterotrophic growth. IFAC-PapersOnLine, 2016, 49, 330-335.	0.9	8
156	A fully automatic and multi-structural segmentation of the left ventricle and the myocardium on highly heterogeneous 2D echocardiographic data. , 2017, , .		8
157	Twelve quick tips for designing sound dynamical models for bioprocesses. PLoS Computational Biology, 2019, 15, e1007222.	3.2	8
158	Multimodel analysis of the response of the coccolithophore Emiliania huxleyi to an elevation of under nitrate limitation. Ecological Modelling, 2008, 211, 324-338.	2.5	7
159	Solutions of Alkylammonium and Bulky Anions: Description of Osmotic Coefficients within the Binding Mean Spherical Approximation. Industrial & Engineering Chemistry Research, 2012, 51, 9661-9668.	3.7	7
160	Challenge on Endocardial Three-dimensional Ultrasound Segmentation (CETUS). , 2014, , .		7
161	Effect of ionic condensation and interactions between humic substances on their mobility: An experimental and simulation study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 436, 408-416.	4.7	6
162	Compressive sensing ultrasound imaging using overcomplete dictionaries. , 2013, , .		6

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163	Generation of ultra-realistic synthetic echocardiographic sequences to facilitate standardization of deformation imaging. , 2015, , .		6
164	Hybrid Strategy to Simulate 3-D Nonlinear Radio-Frequency Ultrasound Using a Variant Spatial PSF. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1390-1398.	3.0	6
165	Deep Learning Applied to Multi-Structure Segmentation in 2D Echocardiography: A Preliminary Investigation of the Required Database Size. , 2018, , .		6
166	Evaluation of the feasibility of photosynthetic biogas upgrading: Simulation of a large-scale system. Energy, 2019, 189, 116313.	8.8	6
167	Segmentation of Myocardial Regions in Echocardiography Using the Statistics of the Radio-Frequency Signal. , 2007, , 433-442.		6
168	Physics-constrained intraventricular vector flow mapping by color Doppler. Physics in Medicine and Biology, 2021, 66, 245019.	3.0	6
169	Optimal Darwinian Selection of Microorganisms with Internal Storage. Processes, 2022, 10, 461.	2.8	6
170	A Dynamic Model for Anaerobic Digestion of Microalgae*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5034-5039.	0.4	5
171	Fast Fully Automatic Segmentation of the Myocardium in 2D Cine MR Images. Lecture Notes in Computer Science, 2013, , 71-79.	1.3	5
172	Adaptive control for optimizing microalgae production. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 297-302.	0.4	5
173	Driving Species Competition in a Light-limited Chemostat. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 175-180.	0.4	5
174	Compressed sensing reconstruction of 3D ultrasound data using dictionary learning. , 2014, , .		5
175	The Photoinhibistat: Operating Microalgae Culture under Photoinhibition for Strain Selection**This work was supported by the French ANR Facteur 4 (ANR-12-BIME-0004) and Purple Sun (ANR-13-BIME-0004) projects.. IFAC-PapersOnLine, 2016, 49, 1068-1073.	0.9	5
176	Optimal operation of algal ponds accounting for future meteorology. IFAC-PapersOnLine, 2016, 49, 1062-1067.	0.9	5
177	A Pipeline for the Generation of Synthetic Cardiac Color Doppler. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 932-941.	3.0	5
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