

Sergio Silvestri

List of Publications by Year in descending order

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Version: 2024-02-01

119
papers

2,690
citations

218592

26
h-index

206029

48
g-index

120
all docs

120
docs citations

120
times ranked

2581
citing authors

#	ARTICLE	IF	CITATIONS
1	Contact-Based Methods for Measuring Respiratory Rate. <i>Sensors</i> , 2019, 19, 908.	2.1	259
2	Techniques for temperature monitoring during laser-induced thermotherapy: An overview. <i>International Journal of Hyperthermia</i> , 2013, 29, 609-619.	1.1	185
3	Theoretical Analysis and Experimental Evaluation of Laser-Induced Interstitial Thermotherapy in Ex Vivo Porcine Pancreas. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 2958-2964.	2.5	130
4	Biological effects of exposure to magnetic resonance imaging: an overview. <i>BioMedical Engineering OnLine</i> , 2004, 3, 11.	1.3	114
5	CT-based thermometry: An overview. <i>International Journal of Hyperthermia</i> , 2014, 30, 219-227.	1.1	104
6	Micromachined Flow Sensors in Biomedical Applications. <i>Micromachines</i> , 2012, 3, 225-243.	1.4	91
7	Microfabricated Tactile Sensors for Biomedical Applications: A Review. <i>Biosensors</i> , 2014, 4, 422-448.	2.3	88
8	EUS-guided Nd:YAG laser ablation of normal pancreatic tissue: a pilot study in a pig model. <i>Gastrointestinal Endoscopy</i> , 2010, 72, 358-363.	0.5	84
9	Contactless Monitoring of Breathing Patterns and Respiratory Rate at the Pit of the Neck: A Single Camera Approach. <i>Journal of Sensors</i> , 2018, 2018, 1-13.	0.6	80
10	Sclerostin Regulation, Microarchitecture, and Advanced Glycation End Products in the Bone of Elderly Women With Type 2 Diabetes. <i>Journal of Bone and Mineral Research</i> , 2020, 35, 2415-2422.	3.1	76
11	Feasibility of EUS-guided Nd:YAG laser ablation of unresectable pancreatic adenocarcinoma. <i>Gastrointestinal Endoscopy</i> , 2018, 88, 168-174.e1.	0.5	73
12	Optoelectronic Plethysmography in Clinical Practice and Research: A Review. <i>Respiration</i> , 2017, 93, 339-354.	1.2	70
13	Experimental assessment of CT-based thermometry during laser ablation of porcine pancreas. <i>Physics in Medicine and Biology</i> , 2013, 58, 5705-5716.	1.6	66
14	Non-Contact Monitoring of Breathing Pattern and Respiratory Rate via RGB Signal Measurement. <i>Sensors</i> , 2019, 19, 2758.	2.1	65
15	Force and pressure distribution using Macintosh and GlideScope laryngoscopes in normal and difficult airways: a manikin study. <i>British Journal of Anaesthesia</i> , 2012, 108, 146-151.	1.5	62
16	Stature estimation from scapular measurements by CT scan evaluation in an Italian population. <i>Legal Medicine</i> , 2013, 15, 202-208.	0.6	53
17	EUS-guided Nd:YAG laser ablation of a hepatocellular carcinoma in the caudate lobe. <i>Gastrointestinal Endoscopy</i> , 2011, 73, 632-636.	0.5	52
18	Facial Nerve Outcome after Vestibular Schwannoma Surgery: Our Experience. <i>Journal of Neurological Surgery, Part B: Skull Base</i> , 2012, 73, 021-027.	0.4	50

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19	Determination of stature from skeletal and skull measurements by CT scan evaluation. Forensic Science International, 2012, 222, 398.e1-398.e9.	1.3	46
20	A Needlelike Probe for Temperature Monitoring During Laser Ablation Based on Fiber Bragg Grating: Manufacturing and Characterization. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.4	46
21	US-guided application of Nd:YAG laser in porcine pancreatic tissue: an ex vivo study and numerical simulation. Gastrointestinal Endoscopy, 2013, 78, 750-755.	0.5	45
22	Temperature monitoring and lesion volume estimation during double-applicator laser-induced thermotherapy in ex vivo swine pancreas: a preliminary study. Lasers in Medical Science, 2014, 29, 607-614.	1.0	44
23	Magnetic resonance-based thermometry during laser ablation on ex-vivo swine pancreas and liver. Medical Engineering and Physics, 2015, 37, 631-641.	0.8	35
24	Feedforward Neural Network for Force Coding of an MRI-Compatible Tactile Sensor Array Based on Fiber Bragg Grating. Journal of Sensors, 2015, 2015, 1-9.	0.6	33
25	A high sensitivity fiber optic macro-bend based gas flow rate transducer for low flow rates: Theory, working principle, and static calibration. Review of Scientific Instruments, 2013, 84, 024301.	0.6	30
26	A novel target-type low pressure drop bidirectional optoelectronic air flow sensor for infant artificial ventilation: Measurement principle and static calibration. Review of Scientific Instruments, 2011, 82, 024301.	0.6	27
27	Laser Interstitial Thermotherapy for pancreatic tumor ablation: Theoretical model and experimental validation. , 2011, 2011, 5585-8.		26
28	Optical-Fiber Measurement Systems for Medical Applications. , 0, , .		26
29	Non-Contact Respiratory Monitoring Using an RGB Camera for Real-World Applications. Sensors, 2021, 21, 5126.	2.1	22
30	Validation of a Wearable Device and an Algorithm for Respiratory Monitoring During Exercise. IEEE Sensors Journal, 2019, 19, 4652-4659.	2.4	21
31	Experimental evaluation of errors in the measurement of respiratory parameters of the newborn performed by a continuous flow neonatal ventilator. Journal of Medical Engineering and Technology, 2006, 30, 31-40.	0.8	20
32	Analysis of breathing via optoelectronic systems: comparison of four methods for computing breathing volumes and thoraco-abdominal motion pattern. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 1678-1689.	0.9	20
33	Contactless Vital Signs Monitoring From Videos Recorded With Digital Cameras: An Overview. Frontiers in Physiology, 2022, 13, 801709.	1.3	20
34	Measurement system based on RGB camera signal for contactless breathing pattern and respiratory rate monitoring. , 2018, , .		19
35	A transistor based air flow transducer for thermohygrometric control of neonatal ventilatory applications. Review of Scientific Instruments, 2008, 79, 104301.	0.6	18
36	Ecological Sucking Monitoring of Newborns. IEEE Sensors Journal, 2013, 13, 4561-4568.	2.4	18

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37	A Novel Method to Compute Breathing Volumes via Motion Capture Systems: Design and Experimental Trials. <i>Journal of Applied Biomechanics</i> , 2017, 33, 361-365.	0.3	18
38	Mechanical ventilation with heated humidifiers: measurements of condensed water mass within the breathing circuit according to ventilatory settings. <i>Physiological Measurement</i> , 2013, 34, 813-821.	1.2	17
39	Design and evaluation of a methodology to perform personalized visual biofeedback for reducing respiratory amplitude in radiation treatment. <i>Medical Physics</i> , 2009, 36, 1467-1472.	1.6	16
40	A novel control strategy to improve the performances of heated wire humidifiers in artificial neonatal ventilation. <i>Physiological Measurement</i> , 2012, 33, 1199-1211.	1.2	16
41	An orifice meter for bidirectional air flow measurements: Influence of gas thermo-hygrometric content on static response and bidirectionality. <i>Flow Measurement and Instrumentation</i> , 2013, 34, 105-112.	1.0	16
42	Mathematical model and minimal measurement system for optimal control of heated humidifiers in neonatal ventilation. <i>Medical Engineering and Physics</i> , 2010, 32, 475-481.	0.8	15
43	Linearity dependence on oxygen fraction and gas temperature of a novel Fleisch pneumotachograph for neonatal ventilation at low flow rates. <i>Measurement: Journal of the International Measurement Confederation</i> , 2012, 45, 2064-2071.	2.5	15
44	Theoretical model and design of a device to reduce the influence of environmental factors on refractive surgery outcomes. , 2006, 2006, 343-6.		14
45	The influence of flow rate on breathing circuit compliance and tidal volume delivered to patients in mechanical ventilation. <i>Physiological Measurement</i> , 2006, 27, 23-33.	1.2	14
46	Comparison of marker models for the analysis of the volume variation and thoracoabdominal motion pattern in untrained and trained participants. <i>Journal of Biomechanics</i> , 2018, 76, 247-252.	0.9	14
47	Multi-ROI Spectral Approach for the Continuous Remote Cardio-Respiratory Monitoring from Mobile Device Built-In Cameras. <i>Sensors</i> , 2022, 22, 2539.	2.1	13
48	An open-loop controlled active lung simulator for preterm infants. <i>Medical Engineering and Physics</i> , 2011, 33, 47-55.	0.8	12
49	Calibration and Uncertainty Evaluation Using Monte Carlo Method of a Simple 2D Sound Localization System. <i>IEEE Sensors Journal</i> , 2013, 13, 3312-3318.	2.4	12
50	Estimation of anisotropy coefficient of swine pancreas, liver and muscle at 1064Ånm based on goniometric technique. <i>Journal of Biophotonics</i> , 2015, 8, 422-428.	1.1	12
51	Comparison of two methods for estimating respiratory waveforms from videos without contact. , 2019, , .		12
52	Circuit compliance compensation in lung protective ventilation. , 2006, 2006, 5603-6.		11
53	A preliminary efficacy evaluation performed by opto-electronic plethysmography of asymmetric respiratory rehabilitation. , 2009, 2009, 849-52.		11
54	A novel preterm respiratory mechanics active simulator to test the performances of neonatal pulmonary ventilators. <i>Review of Scientific Instruments</i> , 2002, 73, 2411-2416.	0.6	10

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55	Theoretical assessment of principal factors influencing laser interstitial thermotherapy outcomes on pancreas. , 2012, 2012, 5687-90.		10
56	Magnetic Resonance-compatible needle-like probe based on Bragg grating technology for measuring temperature during Laser Ablation. , 2015, 2015, 1287-90.		10
57	Evaluation of optoelectronic Plethysmography accuracy and precision in recording displacements during quiet breathing simulation. , 2015, 2015, 1291-4.		9
58	On the robust utilization of non-parametric tests for evaluation of combined cyclical and monotonic drift. Measurement Science and Technology, 2001, 12, 1439-1444.	1.4	8
59	Estimation of optical properties of neuroendocrine pancreas tumor with double-integrating-sphere system and inverse Monte Carlo model. Lasers in Medical Science, 2016, 31, 1041-1050.	1.0	8
60	Feasibility assessment of magnetic resonance-thermometry on pancreas undergoing laser ablation: Sensitivity analysis of three sequences. Measurement: Journal of the International Measurement Confederation, 2016, 80, 21-28.	2.5	8
61	Proportional mechanical ventilation through PWM driven on/off solenoid valve. , 2010, 2010, 1222-5.		7
62	An optical fiber based flow transducer for infant ventilation: Measurement principle and calibration. , 2011, , .		7
63	Monitoring of temperature increase and tissue vaporization during laser interstitial thermotherapy of ex vivo swine liver by computed tomography. , 2013, 2013, 378-81.		7
64	Design of fiber optic applicators for laser interstitial thermotherapy: Theoretical evaluation of thermal outcomes. , 2013, 2013, 3733-6.		7
65	Optical measurement of breathing: Algorithm volume calibration and preliminary validation on healthy trained subjects. , 2016, 2016, 2153-2156.		7
66	A Novel Methodology for the Experimental Evaluation of Pulmonary Ventilator Performance Drift. Journal of Clinical Engineering, 1997, 22, 163-170.	0.1	6
67	Gas pre-warming for improving performances of heated humidifiers in neonatal ventilation. , 2011, 2011, 1205-8.		6
68	A micromachined intensity-modulated fiber optic sensor for strain measurements: Working principle and static calibration. , 2012, 2012, 5790-3.		6
69	Design and development of a rheometer for biological fluids of limited availability. Review of Scientific Instruments, 2014, 85, 105105.	0.6	6
70	Design and characterization of a measurement system for monitoring pressure exerted by bronchial blockers: In vitro trials. , 2015, 2015, 1691-4.		6
71	Preliminary analysis of ultrasound elastography imaging-based thermometry on non-perfused ex vivo swine liver. Journal of Ultrasound, 2020, 23, 69-75.	0.7	6
72	Experimental Analysis of the Airway Circuit Effects on Breathing Pattern Generated by Neonatal Pulmonary Ventilators. Journal of Clinical Engineering, 2004, 29, 134-137.	0.1	5

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73	Linear Model and Algorithm to Automatically Estimate the Pressure Limit of Pressure Controlled Ventilation for Delivering a Target Tidal Volume. <i>Journal of Clinical Monitoring and Computing</i> , 2006, 20, 1-10.	0.7	5
74	Influence of FBC sensors length on temperature measures in laser-irradiated pancreas: Theoretical and experimental evaluation. , 2013, 2013, 3737-40.		5
75	Influence of gas temperature on the performances of a low dead space capillary type pneumotachograph for neonatal ventilation. , 2009, 2009, 1226-9.		4
76	Non-invasive Estimation of Cardiac Output in Mechanically Ventilated Patients: A Prolonged Expiration Method. <i>Annals of Biomedical Engineering</i> , 2012, 40, 1777-1789.	1.3	4
77	Accuracy evaluation of dynamic volume measurements performed by opto-electronic plethysmograph, by using a pulmonary simulator. , 2013, 2013, 930-3.		4
78	Metrological properties evaluation of a chest wall simulator during simulated quiet breathing. , 2015, , .		4
79	Static forces variation and pressure distribution in laryngoscopy performed by straight and curved blades. , 2009, 2009, 865-8.		3
80	Evaluation of pulmonary rehabilitation after lung resection through opto-electronic plethysmography. , 2010, 2010, 2481-4.		3
81	Uncertainty evaluation of a calibration method for metabolic analyzer in mechanical ventilation. , 2011, , .		3
82	Influence of ventilatory settings on indirect calorimetry in mechanically ventilated patients. , 2011, 2011, 1245-8.		3
83	Force and pressure distribution using Macintosh and GlideScope laryngoscopes. <i>British Journal of Anaesthesia</i> , 2012, 108, 698.	1.5	3
84	Sa1513 US-Guided Nd:YAG Laser Ablation in Porcine Pancreatic Tissue: an Ex Vivo Study and Numerical Simulation. <i>Gastrointestinal Endoscopy</i> , 2012, 75, AB187.	0.5	3
85	Performances of heated humidifiers in mechanical ventilation: A preliminary intra-breath analysis. , 2013, 2013, 934-7.		3
86	A micro opto-mechanical displacement sensor based on micro-diffraction gratings: Design and characterization. , 2013, 2013, 4714-7.		3
87	Feasibility assessment of CT-based thermometry for temperature monitoring during thermal procedure: Influence of ROI size and scan setting on metrological properties. , 2015, 2015, 7893-6.		3
88	Ultrasound estimation of pleural effusion in geriatric patients. , 2016, , .		3
89	270 EUS-Guided Nd:YAG Laser Ablation of Locally Advanced Pancreatic Adenocarcinoma: Feasibility and Safety Study. <i>Gastrointestinal Endoscopy</i> , 2016, 83, AB135.	0.5	3
90	Optoelectronic plethysmography (OEP) in the assessment of dysfunctional breathing (DB) in athletes. , 2016, , .		3

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91	Reliability Analysis of Non-Parametric Statistical Tests for the Evaluation of Linear Drift in Experimental Data. <i>Strain</i> , 2001, 37, 67-72.	1.4	2
92	Cardiac output estimation in mechanically ventilated patients: A comparison between prolonged expiration method and thermodilution. , 2012, 2012, 2708-11.		2
93	Measurement of condensed water mass during mechanical ventilation with heated wire humidifiers: Experiments with and without pre-warming. , 2014, 2014, 2135-8.		2
94	Estimation of liver iron concentration by dual energy CT images: Influence of X-ray energy on sensitivity. , 2014, 2014, 5129-32.		2
95	Development and characterization of a Fibre Bragg Grating temperature probe for medical Laser Ablation therapy. , 2014, , .		2
96	Non-invasive cardiac output evaluation in postoperative cardiac surgery patients, using a new prolonged expiration-based technique. <i>Journal of Clinical Monitoring and Computing</i> , 2014, 28, 625-632.	0.7	2
97	Goniometric measurement for the estimation of anisotropy coefficient of human and animal pancreas. , 2015, 2015, 1283-6.		2
98	Thermocouples for temperature monitoring during pancreatic laser ablation: Analysis of the measurement error. , 2015, , .		2
99	Influence of fiber Bragg grating length on temperature measurements in laser-irradiated organs. , 2016, , .		2
100	Influence of the length of lead lines on the response of a variable orifice meter: analysis of sensitivity and settling time. , 2018, , .		2
101	Estimation of Pleural Effusion Volume through Chest Ultrasound: Validation of Two Multiplanar Models. <i>Ultrasound in Medicine and Biology</i> , 2020, 46, 1960-1967.	0.7	2
102	Design and experimental characterization of a gas flow generator to calibrate flow meters for neonatal ventilation. , 2012, , .		1
103	Sa1541 EUS-Guided Nd:YAG Laser Ablation of Normal Pancreatic Tissue: A Survival Study in Porcine Model. <i>Gastrointestinal Endoscopy</i> , 2012, 75, AB195-AB196.	0.5	1
104	A new methodology for intra-breath control of mechanical ventilation. <i>Medical Engineering and Physics</i> , 2012, 34, 256-260.	0.8	1
105	An algorithm to improve the estimation accuracy of a non-invasive method for cardiac output measurement based on prolonged expiration. , 2013, 2013, 1823-6.		1
106	Estimation of anisotropy coefficient and total attenuation of swine liver at 850 nm based on a goniometric technique: Influence of sample thickness. , 2014, 2014, 5332-5.		1
107	Temperature monitoring during Laser Ablation by FBC sensors encapsulated within a metallic needle: Experiments on healthy swine tissue. , 2015, , .		1
108	Intra-tissue pressure measurement during laser ablation with fiber-optic extrinsic Fabry-Perot sensor. , 2016, , .		1

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109	A novel tool and procedure for in-situ volumetric calibration of motion capture systems for breathing analysis. , 2016, 2016, 5797-5800.		1
110	Fiber Bragg grating sensors for spatially resolved measurements in ex-vivo pancreatic laser ablation. , 2016, , .		1
111	Optoelectronic Plethysmography Characterises Thoracic Excursion In The Evaluation Of Dysfunctional Breathing (DB). Medicine and Science in Sports and Exercise, 2017, 49, 653.	0.2	1
112	Design Criteria for a Mechatronic Handle for Measuring Visco-Elastic Properties of the Human Arm. , 0, , .		0
113	Facial Nerve Outcome after Vestibular Schwannoma Surgery: Our Experience. Skull Base, 2012, 21, e8-e8.	0.4	0
114	MRI-thermometry on ex vivo swine liver: Preliminary trials to assess the sensitivity of two sequences. , 2015, , .		0
115	Fibre optic sensors for temperature and pressure monitoring in laser ablation: experiments on ex-vivo animal model. Proceedings of SPIE, 2016, , .	0.8	0
116	Analysys of Measurement Methods for Static Magnetic Field Uniformity Assessment in Clinical Magnetic Resonance Imaging. , 2018, , .		0
117	Is age rating enough to investigate changes in breathing motion pattern associated with aging of physically active women?. Journal of Biomechanics, 2021, 125, 110582.	0.9	0
118	1983-P: WNT Pathway and Bone Fragility in Postmenopausal Women with Type 2 Diabetes. Diabetes, 2019, 68, .	0.3	0
119	Theoretical model and design of a device to reduce the influence of environmental factors on refractive surgery outcomes. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0