

# Paola Saccomandi

## List of Publications by Year in Descending Order

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**Version:** 2024-04-27

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

113  
papers

2,155  
citations

26  
h-index

43  
g-index

146  
ext. papers

2,904  
ext. citations

3.1  
avg, IF

5.3  
L-index

#	Paper	IF	Citations
113	Thermophysical and mechanical properties of biological tissues as a function of temperature: a systematic literature review.. <i>International Journal of Hyperthermia</i> , <b>2022</b> , 39, 297-340	3.7	3
112	Ho:YAG laser and temperature: is it safe to use high-power settings?. <i>World Journal of Urology</i> , <b>2022</b> , 1	4	0
111	Three-Phase-Lag Bio-Heat Transfer Model of Cardiac Ablation. <i>Fluids</i> , <b>2022</b> , 7, 180	1.6	0
110	A Multidisciplinary Approach for the Designing and Realization of Customized High Performance Prostheses by Continuous Fiber Additive Manufacturing. <i>Lecture Notes in Computer Science</i> , <b>2022</b> , 379-386	0.9	0
109	Characterization of the Response of Fiber Bragg Grating Sensors Embedded in 3D Printed Continuous Fiberglass Reinforced Composite for Biomedical Applications. <i>Lecture Notes in Computer Science</i> , <b>2022</b> , 494-501	0.9	0
108	Prediction of In Vivo Laser-Induced Thermal Damage with Hyperspectral Imaging Using Deep Learning. <i>Sensors</i> , <b>2021</b> , 21,	3.8	2
107	Laser-induced thermal response and controlled release of copper oxide nanoparticles from multifunctional polymeric nanocarriers. <i>Science and Technology of Advanced Materials</i> , <b>2021</b> , 22, 218-233	7.1	6
106	Quasi-distributed fiber optic sensor-based control system for interstitial laser ablation of tissue: theoretical and experimental investigations. <i>Biomedical Optics Express</i> , <b>2021</b> , 12, 2841-2858	3.5	12
105	Two-dimensional temperature feedback control strategy for thermal ablation of biological tissue <b>2021</b> ,		1
104	Measurement of Ex Vivo Liver, Brain and Pancreas Thermal Properties as Function of Temperature. <i>Sensors</i> , <b>2021</b> , 21,	3.8	7
103	User-driven design and monitoring systems of limb prostheses: overview on the technology and on the gender-related aspects <b>2021</b> ,		1
102	Fiber Optic Sensors-Based Thermal Analysis of Perfusion-Mediated Tissue Cooling in Liver Undergoing Laser Ablation. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2021</b> , 68, 1066-1073	5	10
101	Laser-induced optothermal response of gold nanoparticles: From a physical viewpoint to cancer treatment application. <i>Journal of Biophotonics</i> , <b>2021</b> , 14, e202000161	3.1	17
100	Effects of Warmed and Humidified CO Surgical Site Insufflation in a Novel Experimental Model of Magnetic Compression Colonic Anastomosis. <i>Surgical Innovation</i> , <b>2021</b> , 28, 7-17	2	0
99	3D Shape Sensing With Multicore Optical Fibers: Transformation Matrices Versus Frenet-Serret Equations for Real-Time Application. <i>IEEE Sensors Journal</i> , <b>2021</b> , 21, 4599-4609	4	13
98	Thermomechanical Modeling of Laser Ablation Therapy of Tumors: Sensitivity Analysis and Optimization of Influential Variables. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2021</b> , PP,	5	3
97	Hyperspectral Imagery for Assessing Laser-Induced Thermal State Change in Liver. <i>Sensors</i> , <b>2021</b> , 21,	3.8	6

96	Thermal analysis of laser irradiation-gold nanorod combinations at 808 nm, 940 nm, 975 nm and 1064 nm wavelengths in breast cancer model. <i>International Journal of Hyperthermia</i> , <b>2021</b> , 38, 1099-1110	3.7	3
95	Fiber Bragg Grating Sensors-based Thermometry of Gold Nanorod-enhanced Photothermal Therapy in Tumor Model. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	7
94	PID Controlling Approach Based on FBG Array Measurements for Laser Ablation of Pancreatic Tissues. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2021</b> , 70, 1-9	5.2	2
93	Distributed Sensing Network Enabled by High-Scattering MgO-Doped Optical Fibers for 3D Temperature Monitoring of Thermal Ablation in Liver Phantom. <i>Sensors</i> , <b>2021</b> , 21,	3.8	1
92	Towards temperature-controlled laser ablation based on fiber Bragg grating array temperature measurements <b>2020</b> ,		2
91	Highly dense FBG arrays for millimeter-scale thermal monitoring during nanocomposite-enhanced laser ablation <b>2020</b> ,		5
90	Hyperspectral image-based analysis of thermal damage in living liver undergoing laser ablation <b>2020</b> ,		1
89	Fiber Optic Sensors for Distributed and Quasi-distributed Temperature Measurement <b>2020</b> ,		1
88	Fiber Bragg Grating Sensors for Thermometry during Gold Nanorods-mediated Photothermal Therapy in Tumor Model <b>2020</b> ,		3
87	New Horizons for Laser Ablation: Nanomedicine, Thermometry, and Hyperthermal Treatment Planning Tools <b>2020</b> , 145-151		1
86	A Machine-Learning-Based Approach to Solve Both Contact Location and Force in Soft Material Tactile Sensors. <i>Soft Robotics</i> , <b>2020</b> , 7, 409-420	9.2	27
85	Applications of Elastography in Ablation Therapies: An Animal Model Study. <i>Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A</i> , <b>2020</b> , 30, 980-986	2.1	1
84	Closed-Loop Temperature Control Based on Fiber Bragg Grating Sensors for Laser Ablation of Hepatic Tissue. <i>Sensors</i> , <b>2020</b> , 20,	3.8	14
83	Fiber Bragg Grating Sensors for Performance Evaluation of Fast Magnetic Resonance Thermometry on Synthetic Phantom. <i>Sensors</i> , <b>2020</b> , 20,	3.8	1
82	Distributed 2D temperature sensing during nanoparticles assisted laser ablation by means of high-scattering fiber sensors. <i>Scientific Reports</i> , <b>2020</b> , 10, 12593	4.9	5
81	Spatially resolved thermometry during laser ablation in tissues: Distributed and quasi-distributed fiber optic-based sensing. <i>Optical Fiber Technology</i> , <b>2020</b> , 58, 102295	2.4	17
80	Application of Nanoparticles and Nanomaterials in Thermal Ablation Therapy of Cancer. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	37
79	Influence of motion artifacts on a smart garment for monitoring respiratory rate <b>2019</b> ,		4

78	. <i>IEEE Sensors Journal</i> , <b>2019</b> , 19, 7718-7725	4	35
77	Laser ablation in biliary tree: analysis of the intraductal and superficial thermal effects during the treatment. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2019</b> , 2019, 162-165	0.9	0
76	Hyperspectral imaging for thermal effect monitoring in in vivo liver during laser ablation. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2019</b> , 2019, 1851-1854	0.9	6
75	Modular laser-based endoluminal ablation of the gastrointestinal tract: in vivo dose-effect evaluation and predictive numerical model. <i>Surgical Endoscopy and Other Interventional Techniques</i> , <b>2019</b> , 33, 3200-3208	5.2	3
74	Agar-Coated Fiber Bragg Grating Sensor for Relative Humidity Measurements: Influence of Coating Thickness and Polymer Concentration. <i>IEEE Sensors Journal</i> , <b>2019</b> , 19, 3335-3342	4	16
73	Discrimination between arterial and venous bowel ischemia by computer-assisted analysis of the fluorescent signal. <i>Surgical Endoscopy and Other Interventional Techniques</i> , <b>2019</b> , 33, 1988-1997	5.2	13
72	Feasibility of EUS-guided Nd:YAG laser ablation of unresectable pancreatic adenocarcinoma. <i>Gastrointestinal Endoscopy</i> , <b>2018</b> , 88, 168-174.e1	5.2	44
71	Fiber Bragg Grating Probe for Relative Humidity and Respiratory Frequency Estimation: Assessment During Mechanical Ventilation. <i>IEEE Sensors Journal</i> , <b>2018</b> , 18, 2125-2130	4	21
70	Thermal Treatments of Tumors <b>2018</b> , 199-228		6
69	Laser ablation of the biliary tree: in vivo proof of concept as potential treatment of unresectable cholangiocarcinoma. <i>International Journal of Hyperthermia</i> , <b>2018</b> , 34, 1372-1380	3.7	6
68	Smart textile for respiratory monitoring and thoraco-abdominal motion pattern evaluation. <i>Journal of Biophotonics</i> , <b>2018</b> , 11, e201700263	3.1	66
67	Detection of thermal gradients through fiber-optic Chirped Fiber Bragg Grating (CFBG): Medical thermal ablation scenario. <i>Optical Fiber Technology</i> , <b>2018</b> , 41, 48-55	2.4	30
66	New intraoperative imaging technologies: Innovating the surgeon's eye toward surgical precision. <i>Journal of Surgical Oncology</i> , <b>2018</b> , 118, 265-282	2.8	28
65	<b>2018</b> ,		3
64	Multidimensional thermal mapping during radiofrequency ablation treatments with minimally invasive fiber optic sensors. <i>Biomedical Optics Express</i> , <b>2018</b> , 9, 5891-5902	3.5	7
63	Polymer-coated fiber optic probe for the monitoring of breathing pattern and respiratory rate. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2018</b> , 2018, 1616-1619	0.9	7
62	Design and fabrication of a non-invasive, wireless system for monitoring needle insertion during epidural puncture. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 1026, 012010	0.3	0
61	Wearable textile based on silver plated knitted sensor for respiratory rate monitoring. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2018</b> , 2018, 2865-2868	0.9	16

60	Thermal ablation of pancreatic cancer: A systematic literature review of clinical practice and pre-clinical studies. <i>International Journal of Hyperthermia</i> , <b>2018</b> , 35, 398-418	3.7	41
59	<b>2018</b> ,		1
58	. <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , <b>2018</b> , 2, 172-178	2.8	6
57	Optoelectronic Plethysmography in Clinical Practice and Research: A Review. <i>Respiration</i> , <b>2017</b> , 93, 339-354	3.7	45
56	A wearable textile for respiratory monitoring: Feasibility assessment and analysis of sensors position on system response. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2017</b> , 2017, 4423-4426	0.9	8
55	Assessment of a linearly chirped fiber Bragg grating sensor under linear and non-linear temperature gradient <b>2017</b> ,		2
54	. <i>IEEE Sensors Journal</i> , <b>2017</b> , 17, 6037-6043	4	57
53	A New Pressure Guided Management Tool for Epidural Space Detection: Feasibility Assessment on a Simulator. <i>Artificial Organs</i> , <b>2017</b> , 41, E320-E325	2.6	14
52	Fabrication and preliminary assessment of a fiber optic-based relative humidity sensor for application in mechanical ventilation <b>2017</b> ,		2
51	Respiratory and cardiac rates monitoring during MR examination by a sensorized smart textile <b>2017</b> ,		9
50	Real-time temperature monitoring and estimation of thermal damage in pancreas undergoing magnetic resonance-guided laser ablation: First in vivo study <b>2017</b> ,		1
49	<b>2017</b> ,		4
48	Endoluminal Nd:YAG laser application in ex vivo biliary porcine tissue. <i>Lasers in Medical Science</i> , <b>2017</b> , 32, 1411-1415	3.1	5
47	<b>2017</b> ,		4
46	Gold nanorod-mediated near-infrared laser ablation: in vivo experiments on mice and theoretical analysis at different settings. <i>International Journal of Hyperthermia</i> , <b>2017</b> , 33, 150-159	3.7	33
45	Tapered fiber optic applicator for laser ablation: Theoretical and experimental assessment of thermal effects on ex vivo model. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2017</b> , 2017, 1533-1536	0.9	
44	Novel carbon fiber probe for temperature monitoring during thermal therapies. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2017</b> , 2017, 873-876	0.9	4
43	Ex vivo animal-model assessment of a non-invasive system for loss of resistance detection during epidural blockade. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2017</b> , 2017, 759-762	0.9	6

42	Effects of Nd:YAG laser for the controlled and localized treatment of early gastrointestinal tumors: Preliminary in vivo study. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2017, 2017, 4533-4536</i>	0.9	2
41	Laser Ablation for Cancer: Past, Present and Future. <i>Journal of Functional Biomaterials, 2017, 8,</i>	4.8	69
40	Linearly chirped fiber Bragg grating response to thermal gradient: from bench tests to the real-time assessment during in vivo laser ablations of biological tissue. <i>Journal of Biomedical Optics, 2017, 22, 1-9</i>	3.5	21
39	Performances of heated wire humidifiers during adult mechanical ventilation: Estimation of the amount of condensation <b>2016,</b>		3
38	Design and Feasibility Assessment of a Magnetic Resonance-Compatible Smart Textile Based on Fiber Bragg Grating Sensors for Respiratory Monitoring. <i>IEEE Sensors Journal, 2016, 16, 8103-8110</i>	4	50
37	Bronchial blockers under pressure: in vitro model and ex vivo model. <i>British Journal of Anaesthesia, 2016, 117 Suppl 1, i92-i96</i>	5.4	10
36	Feasibility assessment of magnetic resonance-thermometry on pancreas undergoing laser ablation: Sensitivity analysis of three sequences. <i>Measurement: Journal of the International Measurement Confederation, 2016, 80, 21-28</i>	4.6	5
35	Intra-Tissue Pressure Measurement in Ex Vivo Liver Undergoing Laser Ablation with Fiber-Optic Fabry-Perot Probe. <i>Sensors, 2016, 16,</i>	3.8	17
34	Fiber Optic Sensors for Temperature Monitoring during Thermal Treatments: An Overview. <i>Sensors, 2016, 16,</i>	3.8	103
33	<b>2016,</b>		1
32	Error of a Temperature Probe for Cancer Ablation Monitoring Caused by Respiratory Movements: Ex Vivo and In Vivo Analysis. <i>IEEE Sensors Journal, 2016, 16, 5934-5941</i>	4	24
31	Effect of diagnostic cone-beam computed tomography protocols on image quality, patient dose, and lesion detection. <i>Physica Medica, 2016, 32, 1575-1583</i>	2.7	3
30	<b>2016,</b>		7
29	Ultrasound estimation of pleural effusion in geriatric patients <b>2016,</b>		1
28	<b>2016,</b>		3
27	Estimation of optical properties of neuroendocrine pancreas tumor with double-integrating-sphere system and inverse Monte Carlo model. <i>Lasers in Medical Science, 2016, 31, 1041-50</i>	3.1	5
26	Magnetic resonance-based thermometry during laser ablation on ex-vivo swine pancreas and liver. <i>Medical Engineering and Physics, 2015, 37, 631-41</i>	2.4	25
25	Medical smart textiles based on fiber optic technology: an overview. <i>Journal of Functional Biomaterials, 2015, 6, 204-21</i>	4.8	100

24	Estimation of anisotropy coefficient of swine pancreas, liver and muscle at 1064nm based on goniometric technique. <i>Journal of Biophotonics</i> , <b>2015</b> , 8, 422-8	3.1	9
23	Smart Textile Based on Fiber Bragg Grating Sensors for Respiratory Monitoring: Design and Preliminary Trials. <i>Biosensors</i> , <b>2015</b> , 5, 602-15	5.9	79
22	Emerging clinical applications of computed tomography. <i>Medical Devices: Evidence and Research</i> , <b>2015</b> , 8, 265-78	1.5	21
21	Experimental Assessment of a Variable Orifice Flowmeter for Respiratory Monitoring. <i>Journal of Sensors</i> , <b>2015</b> , 2015, 1-7	2	27
20	Feedforward Neural Network for Force Coding of an MRI-Compatible Tactile Sensor Array Based on Fiber Bragg Grating. <i>Journal of Sensors</i> , <b>2015</b> , 2015, 1-9	2	19
19	Metrological properties evaluation of a chest wall simulator during simulated quiet breathing <b>2015</b> ,		3
18	<b>2015</b> ,		1
17	A Needlelike Probe for Temperature Monitoring During Laser Ablation Based on Fiber Bragg Grating: Manufacturing and Characterization. <i>Journal of Medical Devices, Transactions of the ASME</i> , <b>2015</b> , 9,	1.3	31
16	Flow measurement in mechanical ventilation: a review. <i>Medical Engineering and Physics</i> , <b>2015</b> , 37, 257-64.	2.4	79
15	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> , <b>2014</b> , 28, 625-32	2	1
14	CT-based thermometry: an overview. <i>International Journal of Hyperthermia</i> , <b>2014</b> , 30, 219-27	3.7	73
13	Temperature monitoring and lesion volume estimation during double-applicator laser-induced thermotherapy in ex vivo swine pancreas: a preliminary study. <i>Lasers in Medical Science</i> , <b>2014</b> , 29, 607-14	3.1	37
12	Microfabricated tactile sensors for biomedical applications: a review. <i>Biosensors</i> , <b>2014</b> , 4, 422-48	5.9	68
11	Development and characterization of a Fibre Bragg Grating temperature probe for medical Laser Ablation therapy <b>2014</b> ,		2
10	Techniques for temperature monitoring during laser-induced thermotherapy: an overview. <i>International Journal of Hyperthermia</i> , <b>2013</b> , 29, 609-19	3.7	134
9	US-guided application of Nd:YAG laser in porcine pancreatic tissue: an ex vivo study and numerical simulation. <i>Gastrointestinal Endoscopy</i> , <b>2013</b> , 78, 750-5	5.2	33
8	Optical fiber-based MR-compatible sensors for medical applications: an overview. <i>Sensors</i> , <b>2013</b> , 13, 1410-20	5.20	133
7	Mechanical ventilation with heated humidifiers: measurements of condensed water mass within the breathing circuit according to ventilatory settings. <i>Physiological Measurement</i> , <b>2013</b> , 34, 813-21	2.9	16

6	A high sensitivity fiber optic macro-bend based gas flow rate transducer for low flow rates: theory, working principle, and static calibration. <i>Review of Scientific Instruments</i> , <b>2013</b> , 84, 024301	1.7	24
5	Sa1513 US-Guided Nd:YAG Laser Ablation in Porcine Pancreatic Tissue: an Ex Vivo Study and Numerical Simulation. <i>Gastrointestinal Endoscopy</i> , <b>2012</b> , 75, AB187	5.2	3
4	Theoretical analysis and experimental evaluation of laser-induced interstitial thermotherapy in ex vivo porcine pancreas. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2012</b> , 59, 2958-64	5	96
3	A novel control strategy to improve the performances of heated wire humidifiers in artificial neonatal ventilation. <i>Physiological Measurement</i> , <b>2012</b> , 33, 1199-211	2.9	14
2	<b>2011,</b>		7
1	A novel target-type low pressure drop bidirectional optoelectronic air flow sensor for infant artificial ventilation: measurement principle and static calibration. <i>Review of Scientific Instruments</i> , <b>2011</b> , 82, 024301	1.7	24