Sylvain Gioux

List of Publications by Year
in descending order

77	3,955	159585 30	123424 61
papers	citations	h-index	g-index

77	77	77	3299
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The FLAREâ„¢ Intraoperative Near-Infrared Fluorescence Imaging System: A First-in-Human Clinical Trial in Breast Cancer Sentinel Lymph Node Mapping. Annals of Surgical Oncology, 2009, 16, 2943-2952.	1.5	628
2	Image-Guided Surgery Using Invisible Near-Infrared Light: Fundamentals of Clinical Translation. Molecular Imaging, 2010, 9, 7290.2010.00034.	1.4	444
3	Image-guided surgery using invisible near-infrared light: fundamentals of clinical translation. Molecular Imaging, 2010, 9, 237-55.	1.4	237
4	Toward Optimization of Imaging System and Lymphatic Tracer for Near-Infrared Fluorescent Sentinel Lymph Node Mapping in Breast Cancer. Annals of Surgical Oncology, 2011, 18, 2483-2491.	1.5	225
5	Near-infrared fluorescence sentinel lymph node mapping in breast cancer: a multicenter experience. Breast Cancer Research and Treatment, 2014, 143, 333-342.	2.5	150
6	First-in-human pilot study of a spatial frequency domain oxygenation imaging system. Journal of Biomedical Optics, 2011, 16, 1.	2.6	139
7	Three-dimensional surface profile intensity correction for spatially modulated imaging. Journal of Biomedical Optics, 2009, 14, 034045.	2.6	132
8	Renal Clearable Organic Nanocarriers for Bioimaging and Drug Delivery. Advanced Materials, 2016, 28, 8162-8168.	21.0	122
9	Fundamentals and developments in fluorescence-guided cancer surgery. Nature Reviews Clinical Oncology, 2022, 19, 9-22.	27.6	122
10	Real-time, near-infrared, fluorescence-guided identification of the ureters using methylene blue. Surgery, 2010, 148, 78-86.	1.9	116
11	Real-time intra-operative near-infrared fluorescence identification of the extrahepatic bile ducts using clinically available contrast agents. Surgery, 2010, 148, 87-95.	1.9	109
12	The FLARE Intraoperative Near-Infrared Fluorescence Imaging System: A First-in-Human Clinical Trial in Perforator Flap Breast Reconstruction. Plastic and Reconstructive Surgery, 2010, 126, 1472-1481.	1.4	106
13	Single snapshot imaging of optical properties. Biomedical Optics Express, 2013, 4, 2938.	2.9	102
14	Wavelength optimization for rapid chromophore mapping using spatial frequency domain imaging. Journal of Biomedical Optics, 2010, 15, 1.	2.6	94
15	Spatial frequency domain imaging in 2019: principles, applications, and perspectives. Journal of Biomedical Optics, 2019, 24, 1.	2.6	81
16	Effective Low-dose Escalation of Indocyanine Green for Near-infrared Fluorescent Sentinel Lymph Node Mapping in Melanoma. Annals of Surgical Oncology, 2013, 20, 2357-2363.	1.5	73
17	Review of structured light in diffuse optical imaging. Journal of Biomedical Optics, 2018, 24, 1.	2.6	72
18	Structured illumination enhances resolution and contrast in thick tissue fluorescence imaging. Journal of Biomedical Optics, 2010, 15, 1.	2.6	68

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19	Real-time, profile-corrected single snapshot imaging of optical properties. Biomedical Optics Express, 2015, 6, 4051.	2.9	56
20	High-Power, Computer-Controlled, Light-Emitting Diodeâ€“Based Light Sources for Fluorescence Imaging and Image-Guided Surgery. Molecular Imaging, 2009, 8, 7290.2009.00009.	1.4	46
21	High-power, computer-controlled, light-emitting diode-based light sources for fluorescence imaging and image-guided surgery. Molecular Imaging, 2009, 8, 156-65.	1.4	43
22	Ultrafast optical property map generation using lookup tables. Journal of Biomedical Optics, 2016, 21, 110501.	2.6	41
23	A Novel Pilot Study Using Spatial Frequency Domain Imaging to Assess Oxygenation of Perforator Flaps During Reconstructive Breast Surgery. Annals of Plastic Surgery, 2013, 71, 308-315.	0.9	40
24	Real-time endoscopic optical properties imaging. Biomedical Optics Express, 2017, 8, 5113.	2.9	40
25	qF-SSOP: real-time optical property corrected fluorescence imaging. Biomedical Optics Express, 2017, 8, 3597.	2.9	39
26	Design and characterization of an optimized simultaneous color and near-infrared fluorescence rigid endoscopic imaging system. Journal of Biomedical Optics, 2013, 18, 1.	2.6	38
27	Pancreas-Targeted NIR Fluorophores for Dual-Channel Image-Guided Abdominal Surgery. Theranostics, 2015, 5, 1-11.	10.0	38
28	Machine learning approach for rapid and accurate estimation of optical properties using spatial frequency domain imaging. Journal of Biomedical Optics, 2018, 24, 1.	2.6	38
29	Quantitative real-time optical imaging of the tissue metabolic rate of oxygen consumption. Journal of Biomedical Optics, 2018, 23, 1.	2.6	36
30	Real-time, wide-field and high-quality single snapshot imaging of optical properties with profile correction using deep learning. Biomedical Optics Express, 2020, 11, 5701.	2.9	34
31	OpenSFDI: an open-source guide for constructing a spatial frequency domain imaging system. Journal of Biomedical Optics, 2020, 25, 1.	2.6	31
32	Fluorescenceâ€guided surgery and intervention â€” An <scp>AAPM</scp> emerging technology blue paper. Medical Physics, 2018, 45, 2681-2688.	3.0	29
33	Bone flap perfusion assessment using near-infrared fluorescence imaging. Journal of Surgical Research, 2012, 178, e43-e50.	1.6	27
34	Real-time simultaneous single snapshot of optical properties and blood flow using coherent spatial frequency domain imaging (cSFDI). Biomedical Optics Express, 2016, 7, 870.	2.9	27
35	Endocrine-specific NIR fluorophores for adrenal gland targeting. Chemical Communications, 2016, 52, 10305-10308.	4.1	24
36	FluoSTIC: miniaturized fluorescence image-guided surgery system. Journal of Biomedical Optics, 2012, 17, 106014.	2.6	23

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37	Low-frequency wide-field fluorescence lifetime imaging using a high-power near-infrared light-emitting diode light source. Journal of Biomedical Optics, 2010, 15, 026005.	2.6	21
38	Optimization of Coded Aperture Radioscintigraphy for Sentinel Lymph Node Mapping. Molecular Imaging and Biology, 2012, 14, 173-182.	2.6	21
39	Sentinel Lymph Node Mapping of Liver. Annals of Surgical Oncology, 2015, 22, 1147-1155.	1.5	21
40	Quantitative Wide-Field Imaging Techniques for Fluorescence Guided Neurosurgery. Frontiers in Surgery, 2019, 6, 31.	1.4	21
41	Motion-gated acquisition for in vivo optical imaging. Journal of Biomedical Optics, 2009, 14, 1.	2.6	18
42	Macroscopic fluorescence lifetime topography enhanced via spatial frequency domain imaging. Optics Letters, 2020, 45, 4232.	3.3	17
43	Face transplant perfusion assessment using near-infrared fluorescence imaging. Journal of Surgical Research, 2012, 177, e83-e88.	1.6	16
44	Single snapshot of optical properties image quality improvement using anisotropic two-dimensional windows filtering. Journal of Biomedical Optics, 2019, 24, 1.	2.6	16
45	Real-time, wide-field, and quantitative oxygenation imaging using spatiotemporal modulation of light. Journal of Biomedical Optics, 2019, 24, 1.	2.6	14
46	Single snapshot imaging of optical properties using a single-pixel camera: a simulation study. Journal of Biomedical Optics, 2019, 24, 1.	2.6	14
47	Nearâ€infrared imaging for the assessment of anastomotic patency, thrombosis, and reperfusion in microsurgery: A pilot study in a porcine model. Microsurgery, 2015, 35, 309-314.	1.3	13
48	Intraoperative Hemifacial Composite Flap Perfusion Assessment Using Spatial Frequency Domain Imaging. Annals of Plastic Surgery, 2016, 76, 249-255.	0.9	12
49	Near-infrared imaging of face transplants: are both pedicles necessary?. Journal of Surgical Research, 2013, 184, 714-721.	1.6	10
50	Real-time optical properties and oxygenation imaging using custom parallel processing in the spatial frequency domain. Biomedical Optics Express, 2019, 10, 3916.	2.9	9
51	Noninvasive Near-Infrared Fluorescence Imaging of the Ureter During Robotic Surgery: A Demonstration in a Porcine Model. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2020, 30, 962-966.	1.0	7
52	A low-cost linear DC - 35 MHz high-power LED driver for continuous wave (CW) and fluorescence lifetime imaging (FLIM). , 2008, 6848, 684807.		6
53	Simultaneous multipurpose fluorescence imaging with IRDyeÂ® 800BK during laparoscopic surgery. Surgical Endoscopy and Other Interventional Techniques, 2021, 35, 4840-4848.	2.4	6
54	Contact, high-resolution spatial diffuse reflectance imaging system for skin condition diagnosis. Journal of Biomedical Optics, 2018, 23, 1.	2.6	5

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55	Improved optical sub-systems for intraoperative near-infrared fluorescence imaging. , 2005, 6009, 39.		4
56	Laser line scanning for fluorescence reflectance imaging: a phantom study andin vivovalidation of the enhancement of contrast and resolution. Journal of Biomedical Optics, 2014, 19, 106003.	2.6	4
57	Laser line illumination scheme allowing the reduction of background signal and the correction of absorption heterogeneities effects for fluorescence reflectance imaging. Journal of Biomedical Optics, 2015, 20, 106003.	2.6	4
58	Single Snapshot Imaging of Optical Properties (SSOP) for Perfusion Assessment during Gastric Conduit Creation for Esophagectomy: An Experimental Study on Pigs. Cancers, 2021, 13, 6079.	3.7	4
59	Depth-enhanced fluorescence imaging using masked detection of structured illumination. Journal of Biomedical Optics, 2014, 19, 116008.	2.6	3
60	Real-time imaging of tissue optical properties and surface profile using 3D-SSOP. , 2015, , .		3
61	Quantitative dynamic near-infrared fluorescence imaging using indocyanine green for analysis of bowel perfusion after mesenteric resection. Journal of Biomedical Optics, 2021, 26, .	2.6	3
62	Contact, high-resolution spatial diffuse reflectance imaging system for skin condition diagnosis: a first-in-human clinical trial. Journal of Biomedical Optics, 2021, 26, .	2.6	3
63	Preclinical and clinical validation of a novel oxygenation imaging system. , 2011, , .		2
64	Masked detection of structured illumination (MDSI): depth sensitive fluorescence measurement. , 2013, , .		2
65	Fluorescence-guided surgery imaging systems: basics and advanced concepts. , 2020, , 141-160.		2
66	The design and integration of a custom broadband 15x zoom lens for NIR fluorescence-guided surgery. , 2013, , .		1
67	Real-time endoscopic oxygenation imaging using single snapshot of optical properties (SSOP) imaging (Conference Presentation). , 2016, , .		1
68	Special Section Guest Editorial: Special Section on Spatial Frequency Domain Imaging. Journal of Biomedical Optics, 2019, 24, 1.	2.6	1
69	A low-cost, universal, and cumulative gating circuit for small and large animal clinical imaging. Proceedings of SPIE, 2008, 6848, 6481I.	0.8	1
70	A dual oxygenation and fluorescence imaging platform for reconstructive surgery. Proceedings of SPIE, 2013, , .	0.8	0
71	Molecular-guided surgery. Proceedings of SPIE, 2015, , .	0.8	0
72	Real-time imaging of tissue optical properties and surface profile using 3D-SSOP. , 2015, , .		0

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73	Real-time quantitative fluorescence imaging using a single snapshot optical properties technique for neurosurgical guidance. Proceedings of SPIE, 2015, , .	0.8	0
74	Towards real-time quantitative optical imaging for surgery. , 2017, , .		0
75	In vivo testing of a CMOS-based diffuse reflectance device for skin condition monitoring. , 2019, , .		0
76	Real-time multispectral optical imaging using GPGPU processing. , 2019, , .		0
77	Multimodal imaging platform for surgery: application to tissue status assessment. , 2021, , .		0