

# Adrien Desjardins

## List of Publications by Year in descending order

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Version: 2024-02-01

117  
papers

4,372  
citations

126907

33  
h-index

114465

63  
g-index

121  
all docs

121  
docs citations

121  
times ranked

3731  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comprehensive volumetric optical microscopy in vivo. Nature Medicine, 2006, 12, 1429-1433.	30.7	413
2	Three-Dimensional Coronary Artery Microscopy by Intracoronary Optical Frequency Domain Imaging. JACC: Cardiovascular Imaging, 2008, 1, 752-761.	5.3	279
3	Ultrasensitive plano-concave optical microresonators for ultrasound sensing. Nature Photonics, 2017, 11, 714-719.	31.4	255
4	Comprehensive esophageal microscopy by using optical frequency domain imaging (with video). Gastrointestinal Endoscopy, 2007, 65, 898-905.	1.0	192
5	Removal of Confounding Effects of Global Signal in Functional MRI Analyses. NeuroImage, 2001, 13, 751-758.	4.2	183
6	High-speed polarization sensitive optical frequency domain imaging with frequency multiplexing. Optics Express, 2008, 16, 1096.	3.4	160
7	Angle-resolved Optical Coherence Tomography with sequential angular selectivity for speckle reduction. Optics Express, 2007, 15, 6200.	3.4	124
8	Carbon Nanotube PDMS Composite Coatings on Optical Fibers for All-Optical Ultrasound Imaging. Advanced Functional Materials, 2016, 26, 8390-8396.	14.9	120
9	All-optical forward-viewing photoacoustic probe for high-resolution 3D endoscopy. Light: Science and Applications, 2018, 7, 75.	16.6	119
10	Estimation of lipid and water concentrations in scattering media with diffuse optical spectroscopy from 900 to 1600 nm. Journal of Biomedical Optics, 2010, 15, 037015.	2.6	112
11	Estimation of biological chromophores using diffuse optical spectroscopy: benefit of extending the UV-VIS wavelength range to include 1000 to 1600 nm. Biomedical Optics Express, 2010, 1, 1432.	2.9	106
12	Speckle Reduction in OCT using Massively-Parallel Detection and Frequency-Domain Ranging. Optics Express, 2006, 14, 4736.	3.4	103
13	Laser-generated ultrasound with optical fibres using functionalised carbon nanotube composite coatings. Applied Physics Letters, 2014, 104, .	3.3	101
14	Broadband miniature optical ultrasound probe for high resolution vascular tissue imaging. Biomedical Optics Express, 2015, 6, 1502.	2.9	99
15	Computational fluid dynamics with imaging of cleared tissue and of in vivo perfusion predicts drug uptake and treatment responses in tumours. Nature Biomedical Engineering, 2018, 2, 773-787.	22.5	91
16	Through-needle all-optical ultrasound imaging in vivo: a preclinical swine study. Light: Science and Applications, 2017, 6, e17103-e17103.	16.6	90
17	Minimally invasive photoacoustic imaging: Current status and future perspectives. Photoacoustics, 2019, 16, 100146.	7.8	89
18	Polydimethylsiloxane Composites for Optical Ultrasound Generation and Multimodality Imaging. Advanced Functional Materials, 2018, 28, 1704919.	14.9	81

#	ARTICLE	IF	CITATIONS
19	Handheld Real-Time LED-Based Photoacoustic and Ultrasound Imaging System for Accurate Visualization of Clinical Metal Needles and Superficial Vasculature to Guide Minimally Invasive Procedures. <i>Sensors</i> , 2018, 18, 1394.	3.8	75
20	<i>In vivo</i> optic nerve head biomechanics: performance testing of a three-dimensional tracking algorithm. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20130459.	3.4	69
21	Pencil beam all-optical ultrasound imaging. <i>Biomedical Optics Express</i> , 2016, 7, 3696.	2.9	54
22	Optical fiber ultrasound transmitter with electrospun carbon nanotube-polymer composite. <i>Applied Physics Letters</i> , 2017, 110, 223701.	3.3	54
23	Anatomically realistic ultrasound phantoms using gel wax with 3D printed moulds. <i>Physics in Medicine and Biology</i> , 2018, 63, 015033.	3.0	52
24	Gel wax-based tissue-mimicking phantoms for multispectral photoacoustic imaging. <i>Biomedical Optics Express</i> , 2018, 9, 1151.	2.9	51
25	Performance characteristics of an interventional multispectral photoacoustic imaging system for guiding minimally invasive procedures. <i>Journal of Biomedical Optics</i> , 2015, 20, 1.	2.6	50
26	All-Optical Rotational Ultrasound Imaging. <i>Scientific Reports</i> , 2019, 9, 5576.	3.3	47
27	In-plane ultrasonic needle tracking using a fiber-optic hydrophone. <i>Medical Physics</i> , 2015, 42, 5983-5991.	3.0	44
28	Interventional multispectral photoacoustic imaging with a clinical ultrasound probe for discriminating nerves and tendons: an <i>ex vivo</i> pilot study. <i>Journal of Biomedical Optics</i> , 2015, 20, 110503.	2.6	43
29	Real-Time FPGA Processing for High-Speed Optical Frequency Domain Imaging. <i>IEEE Transactions on Medical Imaging</i> , 2009, 28, 1468-1472.	8.9	42
30	Instrumentation for Multi-modal Spectroscopic Diagnosis of Epithelial Dysplasia. <i>Technology in Cancer Research and Treatment</i> , 2003, 2, 505-514.	1.9	41
31	Identification and removal of laser-induced noise in photoacoustic imaging using singular value decomposition. <i>Biomedical Optics Express</i> , 2017, 8, 68.	2.9	38
32	Epidural needle with embedded optical fibers for spectroscopic differentiation of tissue: <i>ex vivo</i> feasibility study. <i>Biomedical Optics Express</i> , 2011, 2, 1452.	2.9	37
33	Photoacoustic imaging of the human placental vasculature. <i>Journal of Biophotonics</i> , 2020, 13, e201900167.	2.3	36
34	Refractive Two-View Reconstruction for Underwater 3D Vision. <i>International Journal of Computer Vision</i> , 2020, 128, 1101-1117.	15.6	36
35	Looking beyond the imaging plane: 3D needle tracking with a linear array ultrasound probe. <i>Scientific Reports</i> , 2017, 7, 3674.	3.3	33
36	Small Amplitude Red Variables in the AAVSO Photoelectric Program: Light Curves and Periods. <i>Publications of the Astronomical Society of the Pacific</i> , 1996, 108, 139.	3.1	31

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37	Identification of the Epidural Space with Optical Spectroscopy. <i>Anesthesiology</i> , 2010, 113, 1406-1418.	2.5	30
38	Construction of 3-Dimensional Printed Ultrasound Phantoms With Wall-less Vessels. <i>Journal of Ultrasound in Medicine</i> , 2016, 35, 1333-1339.	1.7	30
39	A directional fibre optic ultrasound transmitter based on a reduced graphene oxide and polydimethylsiloxane composite. <i>Applied Physics Letters</i> , 2019, 114, 113505.	3.3	30
40	Interventional Photoacoustic Imaging of the Human Placenta with Ultrasonic Tracking for Minimally Invasive Fetal Surgeries. <i>Lecture Notes in Computer Science</i> , 2015, 9349, 371-378.	1.3	29
41	Comparison of manual and semi-automatic registration in augmented reality image-guided liver surgery: a clinical feasibility study. <i>Surgical Endoscopy and Other Interventional Techniques</i> , 2020, 34, 4702-4711.	2.4	29
42	Needle stylet with integrated optical fibers for spectroscopic contrast during peripheral nerve blocks. <i>Journal of Biomedical Optics</i> , 2011, 16, 077004.	2.6	28
43	Optical Detection of the Brachial Plexus for Peripheral Nerve Blocks. <i>Regional Anesthesia and Pain Medicine</i> , 2011, 36, 350-357.	2.3	26
44	All-optical dual photoacoustic and optical coherence tomography intravascular probe. <i>Photoacoustics</i> , 2018, 11, 65-70.	7.8	26
45	Video-rate all-optical ultrasound imaging. <i>Biomedical Optics Express</i> , 2018, 9, 3481.	2.9	25
46	Catheter manipulation analysis for objective performance and technical skills assessment in transcatheter aortic valve implantation. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 1121-1131.	2.8	23
47	A reconfigurable all-optical ultrasound transducer array for 3D endoscopic imaging. <i>Scientific Reports</i> , 2017, 7, 1208.	3.3	23
48	Coded excitation ultrasonic needle tracking: An <i>in vivo</i> study. <i>Medical Physics</i> , 2016, 43, 4065-4073.	3.0	21
49	Adaptive Light Modulation for Improved Resolution and Efficiency in All-Optical Pulse-Echo Ultrasound. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016, 63, 83-90.	3.0	21
50	Miniature all-optical flexible forward-viewing photoacoustic endoscopy probe for surgical guidance. <i>Optics Letters</i> , 2020, 45, 6238.	3.3	21
51	The influences of Ih on temporal summation in hippocampal CA1 pyramidal neurons: a modeling study. <i>Journal of Computational Neuroscience</i> , 2003, 15, 131-142.	1.0	20
52	Estimation of the scattering coefficients of turbid media using angle-resolved optical frequency-domain imaging. <i>Optics Letters</i> , 2007, 32, 1560.	3.3	17
53	Preliminary Evaluation of Noninvasive Microscopic Imaging Techniques for the Study of Vocal Fold Development. <i>Journal of Voice</i> , 2009, 23, 269-276.	1.5	17
54	Optical Detection of Vascular Penetration During Nerve Blocks. <i>Regional Anesthesia and Pain Medicine</i> , 2012, 37, 3-7.	2.3	17

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55	Quantification of light attenuation in optically cleared mouse brains. <i>Journal of Biomedical Optics</i> , 2015, 20, 080503.	2.6	17
56	Increased ranging depth in optical frequency domain imaging by frequency encoding. <i>Optics Letters</i> , 2007, 32, 2768.	3.3	16
57	Haptic Guidance Based on All-Optical Ultrasound Distance Sensing for Safer Minimally Invasive Fetal Surgery. <i>Journal of Medical Robotics Research</i> , 2018, 03, 1841001.	1.2	14
58	Ultrasonic Needle Tracking with a Fibre-Optic Ultrasound Transmitter for Guidance of Minimally Invasive Fetal Surgery. <i>Lecture Notes in Computer Science</i> , 2017, 10434, 637-645.	1.3	14
59	Broadband All-Optical Plane-Wave Ultrasound Imaging System Based on a Fabry-Pérot Scanner. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2021, 68, 1007-1016.	3.0	13
60	CuInS <sub>2</sub> Quantum Dot and Polydimethylsiloxane Nanocomposites for All-Optical Ultrasound and Photoacoustic Imaging. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100518.	3.7	13
61	Backscattering spectroscopic contrast with angle-resolved optical coherence tomography. <i>Optics Letters</i> , 2007, 32, 3158.	3.3	12
62	Identification of liver metastases with probe-based confocal laser endomicroscopy at two excitation wavelengths. <i>Lasers in Surgery and Medicine</i> , 2017, 49, 280-292.	2.1	12
63	Improving needle visibility in LED-based photoacoustic imaging using deep learning with semi-synthetic datasets. <i>Photoacoustics</i> , 2022, 26, 100351.	7.8	12
64	Precision-Microfabricated Fiber-Optic Probe for Intravascular Pressure and Temperature Sensing. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-12.	2.9	11
65	Versatile and scalable fabrication method for laser-generated focused ultrasound transducers. <i>Optics Letters</i> , 2019, 44, 6005.	3.3	11
66	Dynamic physiological temperature and pressure sensing with phase-resolved low-coherence interferometry. <i>Optics Express</i> , 2019, 27, 5641.	3.4	11
67	Epidural catheter with integrated light guides for spectroscopic tissue characterization. <i>Biomedical Optics Express</i> , 2013, 4, 2619.	2.9	10
68	Utilizing confocal laser endomicroscopy for evaluating the adequacy of laparoscopic liver ablation. <i>Lasers in Surgery and Medicine</i> , 2016, 48, 299-310.	2.1	10
69	Freehand and video-rate all-optical ultrasound imaging. <i>Ultrasonics</i> , 2021, 116, 106514.	3.9	10
70	A Survey on the Current Status and Future Challenges Towards Objective Skills Assessment in Endovascular Surgery. <i>Journal of Medical Robotics Research</i> , 2016, 01, 1640010.	1.2	9
71	Source Density Apodization: Image Artifact Suppression Through Source Pitch Nonuniformity. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2020, 67, 497-504.	3.0	9
72	Neural Network Kalman Filtering for 3-D Object Tracking From Linear Array Ultrasound Data. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2022, 69, 1691-1702.	3.0	9

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73	High-resolution sub-millimetre diameter side-viewing all-optical ultrasound transducer based on a single dual-clad optical fibre. <i>Biomedical Optics Express</i> , 2022, 13, 4047.	2.9	9
74	Pulsation Mode Switching in the Small-Amplitude Red Variable W Bootis. <i>Publications of the Astronomical Society of the Pacific</i> , 1996, 108, 847.	3.1	8
75	Wall-less vascular poly(vinyl) alcohol gel ultrasound imaging phantoms using 3D printed vessels. , 2019, , .		8
76	Use of a flexible optical fibre bundle to interrogate a Fabryâ€“Perot sensor for photoacoustic imaging. <i>Optics Express</i> , 2019, 27, 37886.	3.4	8
77	Photoacoustic endoscopy probe using a coherent fibre optic bundle. , 2015, , .		7
78	3D Ultrasonic Needle Tracking with a 1.5D Transducer Array for Guidance of Fetal Interventions. <i>Lecture Notes in Computer Science</i> , 2016, 9900, 353-361.	1.3	7
79	Patient-Specific Polyvinyl Alcohol Phantom Fabrication with Ultrasound and X-Ray Contrast for Brain Tumor Surgery Planning. <i>Journal of Visualized Experiments</i> , 2020, , .	0.3	7
80	Deep Learning for Instrumented Ultrasonic Tracking: From Synthetic Training Data to <i>In Vivo</i> Application. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2022, 69, 543-552.	3.0	7
81	Ultrasonic Needle Tracking with Dynamic Electronic Focusing. <i>Ultrasound in Medicine and Biology</i> , 2022, 48, 520-529.	1.5	7
82	Robotic Control of a Multi-Modal Rigid Endoscope Combining Optical Imaging with All-Optical Ultrasound. , 2019, , .		6
83	Flexible and directional fibre optic ultrasound transmitters using photostable dyes. <i>OSA Continuum</i> , 2021, 4, 2488.	1.8	6
84	PDMS composites with photostable NIR dyes for multi-modal ultrasound imaging. <i>MRS Advances</i> , 2022, 7, 499-503.	0.9	6
85	All-optical endoscopic probe for high resolution 3D photoacoustic tomography. , 2017, , .		5
86	Acoustical characterisation of carbon nanotube-loaded polydimethylsiloxane used for optical ultrasound generation. , 2017, , .		5
87	Developing patient-specific carotid artery ultrasound imaging phantoms for clinical training using 3D printing. <i>Clinical Radiology</i> , 2019, 74, e9-e10.	1.1	5
88	Optically Generated Ultrasound for Intracoronary Imaging. <i>Frontiers in Cardiovascular Medicine</i> , 2020, 7, 525530.	2.4	5
89	Photoacoustic endoscopy probe using a coherent fibre-optic bundle. , 2015, , .		5
90	Dynamic Characterisation of Fibre-Optic Temperature Sensors for Physiological Monitoring. <i>Sensors</i> , 2021, 21, 221.	3.8	5

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91	Real-time needle guidance with photoacoustic and laser-generated ultrasound probes. Proceedings of SPIE, 2015, , .	0.8	4
92	Real-Time, Video-Rate and Depth-Resolved Imaging of Radio-Frequency Ablation Using All-Optical Ultrasound. , 2018, , .		4
93	Three-Dimensional Ultrasonic Needle Tip Tracking with a Fiber-Optic Ultrasound Receiver. Journal of Visualized Experiments, 2018, , .	0.3	4
94	Large area all-optical ultrasound imaging using robotic control. , 2019, , .		4
95	Fiber optic photoacoustic probe with ultrasonic tracking for guiding minimally invasive procedures. , 2015, , .		4
96	Real-Time Ultrasonic Tracking of an Intraoperative Needle Tip with Integrated Fibre-Optic Hydrophone. , 2021, , .		4
97	Angularly resolved backscattering of light from turbid suspensions of dielectric spheres. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 102, 139-151.	2.3	2
98	Modelling and measurement of laser-generated focused ultrasound: Can interventional transducers achieve therapeutic effects?. Journal of the Acoustical Society of America, 2021, 149, 2732-2742.	1.1	2
99	Robot-Assisted Optical Ultrasound Scanning. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 948-958.	3.2	2
100	Fibre optic intravascular measurements of blood flow: A review. Sensors and Actuators A: Physical, 2021, 332, 113162.	4.1	2
101	3D printed micro-scale fiber optic probe for intravascular pressure sensing. , 2018, , .		2
102	Single Sensor Interventional All-Optical Ultrasound Imaging: Beam Characteristics and Bandwidth Performance. , 2021, , .		2
103	A patient-specific multi-modality abdominal aortic aneurysm imaging phantom. International Journal of Computer Assisted Radiology and Surgery, 2022, , .	2.8	2
104	Fabrication and characterisation of miniature parabolic acoustic lenses. , 2015, , .		1
105	Laparoscopic Manipulation of a Probe-based Confocal Laser Endomicroscope Using a Steerable Intravascular Catheter. Surgical Laparoscopy, Endoscopy and Percutaneous Techniques, 2015, 25, e83-e85.	0.8	1
106	Real-time all-optical ultrasound imaging of a dynamic heart valve phantom. , 2021, , .		1
107	Enhancing photoacoustic visualization of medical devices with elastomeric nanocomposite coatings. , 2019, , .		1
108	Real-time and Freehand Multimodal Imaging: Combining White Light Endoscopy with All-Optical Ultrasound. , 2020, , .		1

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109	Studies of Small-Amplitude Red Variables. International Astronomical Union Colloquium, 1995, 155, 401-402.	0.1	0
110	Notice of Removal: Acoustical characterisation of carbon nanotube-loaded polydimethylsiloxane used for optical ultrasound generation. , 2017, , .		0
111	Source density apodisation in 2D all-optical ultrasound imaging. , 2017, , .		0
112	Microwave Oscillator Ultrasound Receivers. , 2018, , .		0
113	Interventional photoacoustics: using light to sound out the path to safe, effective interventions. Physics in Medicine and Biology, 2019, 64, 220401.	3.0	0
114	TCT CONNECT-373 Optical Ultrasound: A New Imaging Paradigm Allowing Real-Time Visualization of In Situ Fenestration of Aortic Endovascular Grafts During Aneurysm Repair. Journal of the American College of Cardiology, 2020, 76, B160-B161.	2.8	0
115	CuInS <sub>2</sub> Quantum Dot and Polydimethylsiloxane Nanocomposites for All-Optical Ultrasound and Photoacoustic Imaging (Adv. Mater. Interfaces 20/2021). Advanced Materials Interfaces, 2021, 8, 2170114.	3.7	0
116	LED-Based Photoacoustic Imaging for Guiding Peripheral Minimally Invasive Procedures. Progress in Optical Science and Photonics, 2020, , 321-334.	0.5	0
117	Multispectral tissue mapping: developing a concept for the optical evaluation of liver disease. Journal of Medical Imaging, 2020, 7, 066001.	1.5	0