Anthony J Durkin

List of Publications by Year
in descending order

148	5,203	81743	91712
papers	citations	39 h-index	69 g-index

148	148	148	3175
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantitation and mapping of tissue optical properties using modulated imaging. Journal of Biomedical Optics, 2009, 14, 024012.	1.4	520
2	Modulated imaging: quantitative analysis and tomography of turbid media in the spatial-frequency domain. Optics Letters, 2005, 30, 1354.	1.7	387
3	Review of short-wave infrared spectroscopy and imaging methods for biological tissue characterization. Journal of Biomedical Optics, 2015, 20, 030901.	1.4	225
4	Chromophore concentrations, absorption and scattering properties of human skin in-vivo. Optics Express, 2009, 17, 14599.	1.7	163
5	In vivo Fluorescence Spectroscopy of Nonmelanoma Skin CancerÂ¶. Photochemistry and Photobiology, 2001, 73, 178.	1.3	149
6	First-in-human pilot study of a spatial frequency domain oxygenation imaging system. Journal of Biomedical Optics, 2011, 16, 1.	1.4	139
7	Noninvasive assessment of burn wound severity using optical technology: A review of current and future modalities. Burns, 2011, 37, 377-386.	1.1	135
8	Three-dimensional surface profile intensity correction for spatially modulated imaging. Journal of Biomedical Optics, 2009, 14, 034045.	1.4	132
9	Quantitative optical tomography of sub-surface heterogeneities using spatially modulated structured light. Optics Express, 2009, 17, 14780.	1.7	126
10	Fluorescence Excitation Emission Matrices of Human Tissue: A System forin vivoMeasurement and Method of Data Analysis. Applied Spectroscopy, 1999, 53, 302-311.	1.2	109
11	In vivo determination of skin near-infrared optical properties using diffuse optical spectroscopy. Journal of Biomedical Optics, 2008, 13, 014016.	1.4	100
12	Distinguishing between Benign and Malignant Melanocytic Nevi by In Vivo Multiphoton Microscopy. Cancer Research, 2014, 74, 2688-2697.	0.4	95
13	In vivo quantification of optical contrast agent dynamics in rat tumors by use of diffuse optical spectroscopy with magnetic resonance imaging coregistration. Applied Optics, 2003, 42, 2940.	2.1	94
14	Wavelength optimization for rapid chromophore mapping using spatial frequency domain imaging. Journal of Biomedical Optics, 2010, 15, 1.	1.4	94
15	Spatial frequency domain imaging of burn wounds in a preclinical model of graded burn severity. Journal of Biomedical Optics, 2013, 18, 066010.	1.4	89
16	Early Detection of Complete Vascular Occlusion in a Pedicle Flap Model Using Quantitation Spectral Imaging. Plastic and Reconstructive Surgery, 2010, 126, 1924-1935.	0.7	88
17	Fabrication and characterization of silicone-based tissue phantoms with tunable optical properties in the visible and near infrared domain. Proceedings of SPIE, 2008, , .	0.8	86
18	Reflectance-based determination of optical properties in highly attenuating tissue. Journal of Biomedical Optics, 2003, 8, 206.	1.4	76

#	Article	IF	Citations
19	Quantitative assessment of graded burn wounds in a porcine model using spatial frequency domain imaging (SFDI) and laser speckle imaging (LSI). Biomedical Optics Express, 2014, 5, 3467.	1.5	76
20	Postoperative Quantitative Assessment of Reconstructive Tissue Status in a Cutaneous Flap Model Using Spatial Frequency Domain Imaging. Plastic and Reconstructive Surgery, 2011, 127, 117-130.	0.7	72
21	Structured illumination enhances resolution and contrast in thick tissue fluorescence imaging. Journal of Biomedical Optics, 2010, 15, 1.	1.4	68
22	Lookup-table method for imaging optical properties with structured illumination beyond the diffusion theory regime. Journal of Biomedical Optics, 2010, 15, 036013.	1.4	64
23	Multispectral imaging of tissue absorption and scattering using spatial frequency domain imaging and a computed-tomography imaging spectrometer. Journal of Biomedical Optics, 2011, 16, 011015.	1.4	64
24	Quantitative fluorescence imaging of protoporphyrin IX through determination of tissue optical properties in the spatial frequency domain. Journal of Biomedical Optics, 2011, 16, 126013.	1.4	63
25	Polarization-Sensitive Hyperspectral Imaging in vivo: A Multimode Dermoscope for Skin Analysis. Scientific Reports, 2014, 4, 4924.	1.6	60
26	Utility of spatial frequency domain imaging (SFDI) and laser speckle imaging (LSI) to non-invasively diagnose burn depth in a porcine model. Burns, 2015, 41, 1242-1252.	1.1	59
27	Optically Dilute, Absorbing, and Turbid Phantoms for Fluorescence Spectroscopy of Homogeneous and Inhomogeneous Samples. Applied Spectroscopy, 1993, 47, 2114-2121.	1.2	58
28	Characterization of port wine stain skin erythema and melanin content using cross-polarized diffuse reflectance imaging. Lasers in Surgery and Medicine, 2004, 34, 174-181.	1.1	58
29	Comparison of Water and Lipid Content Measurements Using Diffuse Optical Spectroscopy and MRI in Emulsion Phantoms. Technology in Cancer Research and Treatment, 2003, 2, 563-569.	0.8	55
30	Multilayer silicone phantoms for the evaluation of quantitative optical techniques in skin imaging. Proceedings of SPIE, 2010, , .	0.8	54
31	Laser speckle imaging in the spatial frequency domain. Biomedical Optics Express, 2011, 2, 1553.	1.5	54
32	Noncontact imaging of absorption and scattering in layered tissue using spatially modulated structured light. Journal of Applied Physics, 2009, 105, .	1.1	53
33	Advanced demodulation technique for the extraction of tissue optical properties and structural orientation contrast in the spatial frequency domain. Journal of Biomedical Optics, 2014, 19, 056013.	1.4	53
34	In vivomeasurements of cutaneous melanin across spatial scales: using multiphoton microscopy and spatial frequency domain spectroscopy. Journal of Biomedical Optics, 2015, 20, 066005.	1.4	53
35	Determination of optical properties of turbid media spanning visible and near-infrared regimes via spatially modulated quantitative spectroscopy. Journal of Biomedical Optics, 2010, 15, 017012.	1.4	50
36	Method for depth-resolved quantitation of optical properties in layered media using spatially modulated quantitative spectroscopy. Journal of Biomedical Optics, 2011, 16, 077002.	1.4	50

#	Article	IF	Citations
37	Comparison of methods to determine chromophore concentrations from fluorescence spectra of turbid samples. Lasers in Surgery and Medicine, 1996, 19, 75-89.	1.1	48
38	Spatial frequency domain imaging of port wine stain biochemical composition in response to laser therapy: A pilot study. Lasers in Surgery and Medicine, 2012, 44, 611-621.	1.1	47
39	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.	0.5	40
40	Spatial frequency domain spectroscopy of two layer media. Journal of Biomedical Optics, 2011, 16, 107005.	1.4	39
41	Compressed single pixel imaging in the spatial frequency domain. Journal of Biomedical Optics, 2017, 22, 030501.	1.4	39
42	Evaluating clinical observation versus Spatial Frequency Domain Imaging (SFDI), Laser Speckle Imaging (LSI) and thermal imaging for the assessment of burn depth. Burns, 2019, 45, 450-460.	1.1	37
43	Quantitative real-time optical imaging of the tissue metabolic rate of oxygen consumption. Journal of Biomedical Optics, 2018, 23, 1.	1.4	36
44	Visible spatial frequency domain imaging with a digital light microprojector. Journal of Biomedical Optics, 2013, 18, 096007.	1.4	33
45	Quantitative short-wave infrared multispectral imaging ofin vivotissue optical properties. Journal of Biomedical Optics, 2014, 19, 086011.	1.4	33
46	Acute discrimination between superficial-partial and deep-partial thickness burns in a preclinical model with laser speckle imaging. Burns, 2015, 41, 1058-1063.	1.1	32
47	Spatial shift of spatially modulated light projected on turbid media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 2833.	0.8	31
48	Quantitative assessment of partial vascular occlusions in a swine pedicle flap model using spatial frequency domain imaging. Biomedical Optics Express, 2013, 4, 298.	1.5	31
49	Optical imaging in an Alzheimerâ€™s mouse model reveals amyloid-Î²-dependent vascular impairment. Neurophotonics, 2014, 1, 011005.	1.7	31
50	Low-cost tissue simulating phantoms with adjustable wavelength-dependent scattering properties in the visible and infrared ranges. Journal of Biomedical Optics, 2016, 21, 067001.	1.4	31
51	Coregistration of diffuse optical spectroscopy and magnetic resonance imaging in a rat tumor model. Applied Optics, 2003, 42, 2951.	2.1	29
52	Multifrequency synthesis and extraction using square wave projection patterns for quantitative tissue imaging. Journal of Biomedical Optics, 2015, 20, 116005.	1.4	28
53	Correcting for motion artifact in handheld laser speckle images. Journal of Biomedical Optics, 2018, 23, 1.	1.4	28
54	Real-time simultaneous single snapshot of optical properties and blood flow using coherent spatial frequency domain imaging (cSFDI). Biomedical Optics Express, 2016, 7, 870.	1.5	27

#	Article	IF	Citations
55	Quantitative longâ€term measurements of burns in a rat model using Spatial Frequency Domain Imaging (SFDI) and Laser Speckle Imaging (LSI). Lasers in Surgery and Medicine, 2017, 49, 293-304.	1.1	27
56	Monitoring kidney optical properties during cold storage preservation with spatial frequency domain imaging. Journal of Biomedical Optics, 2019, 24, 1.	1.4	26
57	In vivospatial frequency domain spectroscopy of two layer media. Journal of Biomedical Optics, 2012, 17, 107006.	1.4	25
58	Quantitative spectroscopy of superficial turbid media. Optics Letters, 2005, 30, 3165.	1.7	24
59	Quantitative determination of dynamical properties using coherent spatial frequency domain imaging. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 2108.	0.8	24
60	In vivoisolation of the effects of melanin from underlying hemodynamics across skin types using spatial frequency domain spectroscopy. Journal of Biomedical Optics, 2016, 21, 057001.	1.4	24
61	Optical properties of mouse brain tissue after optical clearing with FocusClearâ„¢. Journal of Biomedical Optics, 2015, 20, 095010.	1.4	23
62	Evaluation of a pointwise microcirculation assessment method using liquid and multilayered tissue simulating phantoms. Journal of Biomedical Optics, 2017, 22, 1.	1.4	23
63	Wideâ€field spatial mapping of in vivo tattoo skin optical properties using modulated imaging. Lasers in Surgery and Medicine, 2009, 41, 442-453.	1.1	21
64	Quantitative, depth-resolved determination of particle motion using multi-exposure, spatial frequency domain laser speckle imaging. Biomedical Optics Express, 2013, 4, 2880.	1.5	21
65	Imaging scattering orientation with spatial frequency domain imaging. Journal of Biomedical Optics, 2011, 16, 126001.	1.4	20
66	In vivo optical signatures of neuronal death in a mouse model of Alzheimer's disease. Lasers in Surgery and Medicine, 2014, 46, 27-33.	1.1	20
67	Separating melanin from hemodynamics in nevi using multimode hyperspectral dermoscopy and spatial frequency domain spectroscopy. Journal of Biomedical Optics, 2016, 21, 114001.	1.4	20
68	Portable (handheld) clinical device for quantitative spectroscopy of skin, utilizing spatial frequency domain reflectance techniques. Review of Scientific Instruments, 2017, 88, 094302.	0.6	20
69	Burn wound classification model using spatial frequency-domain imaging and machine learning. Journal of Biomedical Optics, 2019, 24, 1.	1.4	20
70	Investigation of a probe design for facilitating the uses of the standard photon diffusion equation at short source-detector separations: Monte Carlo simulations. Journal of Biomedical Optics, 2009, 14, 054043.	1.4	19
71	Characterizing reduced scattering coefficient of normal human skin across different anatomic locations and Fitzpatrick skin types using spatial frequency domain imaging. Journal of Biomedical Optics, 2021, 26, .	1.4	19
72	Spatial frequency domain imaging: a quantitative, noninvasive tool for in vivo monitoring of burn wound and skin graft healing. Journal of Biomedical Optics, 2019, 24, 1.	1.4	19

#	Article	IF	Citations
73	Hyperspectral imaging in the spatial frequency domain with a supercontinuum source. Journal of Biomedical Optics, 2019, 24, 1.	1.4	18
74	Detection of bruises on golden delicious apples using spatial- frequency-domain imaging. , 2007, , .		17
75	In vivo Fluorescence Spectroscopy of Nonmelanoma Skin CancerÂ¶. Photochemistry and Photobiology, 2007, 73, 178-183.	1.3	16
76	Characterisation of impaired wound healing in a preclinical model of induced diabetes using wideâ€field imaging and conventional immunohistochemistry assays. International Wound Journal, 2019, 16, 144-152.	1.3	16
77	Effects of motion on optical properties in the spatial frequency domain. Journal of Biomedical Optics, 2011, 16, 126009.	1.4	15
78	Method using in vivo quantitative spectroscopy to guide design and optimization of low-cost, compact clinical imaging devices: emulation and evaluation of multispectral imaging systems. Journal of Biomedical Optics, 2018, 23, 1.	1.4	15
79	Quantifying the Optical Properties and Chromophore Concentrations of Turbid Media by Chemometric Analysis of Hyperspectral Diffuse Reflectance Data Collected Using a Fourier Interferometric Imaging System. Applied Spectroscopy, 2001, 55, 1035-1045.	1.2	14
80	Determination of Optical Properties of Superficial Volumes of Layered Tissue Phantoms. IEEE Transactions on Biomedical Engineering, 2008, 55, 335-339.	2.5	14
81	Hybrid diffusion and two-flux approximation for multilayered tissue light propagation modeling. Applied Optics, 2011, 50, 4237.	2.1	14
82	Impact of hemoglobin breakdown products in the spectral analysis of burn wounds using spatial frequency domain spectroscopy. Journal of Biomedical Optics, 2019, 24, 1.	1.4	14
83	Determination of optimal view angles for quantitative facial image analysis. Journal of Biomedical Optics, 2005, 10, 024002.	1.4	13
84	Quantitative near infrared spectroscopic analysis of Qâ€Šswitched Nd:YAG treatment of generalized argyria. Lasers in Surgery and Medicine, 2013, 45, 15-21.	1.1	13
85	Solid tissue simulating phantoms having absorption at 970Ânm for diffuse optics. Journal of Biomedical Optics, 2017, 22, 076013.	1.4	13
86	Spatial Frequency Domain Imaging (SFDI) of clinical burns: A case report. Burns Open, 2020, 4, 67-71.	0.2	13
87	Chemometric analysis of frequency-domain photon migration data: quantitative measurements of optical properties and chromophore concentrations in multicomponent turbid media. Applied Optics, 2000, 39, 1659.	2.1	12
88	Evaluating visual perception for assessing reconstructed flap health. Journal of Surgical Research, 2015, 197, 210-217.	0.8	10
89	Description and Performance of a Fiber-Optic Confocal Fluorescence Spectrometer. Applied Spectroscopy, 1994, 48, 350-355.	1.2	9
90	Implementation of an LED-based clinical spatial frequency domain imaging system. , 2012, , .		9

#	Article	IF	Citations
91	Assessing multimodal optical imaging of perfusion in burn wounds. Burns, 2022, 48, 799-807.	1.1	6
92	Recovery of layered tissue optical properties from spatial frequency-domain spectroscopy and a deterministic radiative transport solver. Journal of Biomedical Optics, 2018, 24, 1.	1.4	6
93	Topics in biomedical optics: introduction. Applied Optics, 2003, 42, 2869.	2.1	5
94	Differential pathlength factor informs evoked stimulus response in a mouse model of Alzheimerâ€™s disease. Neurophotonics, 2015, 2, 045001.	1.7	5
95	Spatial frequency domain imager based on a compact multiaperture camera: testing and feasibility for noninvasive burn severity assessment. Journal of Biomedical Optics, 2021, 26, .	1.4	5
96	Quantifying the confounding effect of pigmentation on measured skin tissue optical properties: a comparison of colorimetry with spatial frequency domain imaging. Journal of Biomedical Optics, 2022, 27, .	1.4	5
97	Multimode optical dermoscopy (SkinSpect) analysis for skin with melanocytic nevus. Proceedings of SPIE, 2016, , .	0.8	4
98	A Quantitative Assessment of Wound Healing With Oxygenated Micro/Nanobubbles in a Preclinical Burn Model. Annals of Plastic Surgery, 2021, 87, 421-426.	0.5	3
99	Evaluation of a multi-layer diffuse reflectance spectroscopy system using optical phantoms. , 2017, , .		3
100	A simple burn wound severity assessment classifier based on spatial frequency domain imaging (SFDI) and machine learning. , 2019, , .		3
101	Early detection of complete venous occlusion in a rodent and swine pedicle flap model using modulated imaging, a new novel multispectral imaging technique. Journal of the American College of Surgeons, 2009, 209, S77-S78.	0.2	2
102	Preclinical and clinical validation of a novel oxygenation imaging system. , 2011, , .		2
103	Quantifying the optical properties and chromophore concentrations of turbid media using polarization sensitive hyperspectral imaging: optical phantom studies. Proceedings of SPIE, 2013, , .	0.8	2
104	A Critical Evaluation of Human Perception in Conventional Flap Monitoring Versus Spatial Frequency Domain Imaging. Plastic and Reconstructive Surgery, 2014, 134, 73.	0.7	2
105	Quantifying the optical properties of turbid media using polarization sensitive hyperspectral imaging (SkinSpect): two-layer optical phantom studies. Proceedings of SPIE, 2015, , .	0.8	2
106	Depth-Sectioned Imaging and Quantitative Analysis in Turbid Media Using Spatially Modulated Illumination. , 2004, , .		2
107	Spatial-Frequency-Domain Imaging for quality assessment of apples. , 2006, , .		1
108	Diffuse optical spectroscopy of melanoma-simulating silicone phantoms. Proceedings of SPIE, 2009, , .	0.8	1

#	Article	IF	Citations
109	Towards spatial frequency domain optical imaging of neurovascular coupling in a mouse model of Alzheimer's disease. , 2012, , .		1
110	Quantitative longitudinal measurement in a rat model of controlled burn severity using spatial frequency domain imaging. , 2013, , .		1
111	Comparison of methods to determine chromophore concentrations from fluorescence spectra of turbid samples. , 1996, 19, 75.		1
112	Characterization of debrided burn wounds using spatial frequency domain imaging. , 2019, , .		1
113	Development of Spatial Frequency Domain Instrument for the Quantification of Layer Specific Optical Properties of Pigmented Lesions. , 2012, , .		1
114	A LED based spatial frequency domain imaging system for optimization of photodynamic therapy of Basal Cell Carcinoma (BCC). , 2010, , .		1
115	hyperspectral characterization of tissue simulating phantoms using a supercontinuum laser in a spatial frequency domain imaging instrument. , 2018, , .		1
116	Assessing the predictive capability of optical imaging techniques, Spatial Frequency Domain Imaging (SFDI) and Laser Speckle Imaging (LSI), to the gold standard of clinical assessment in a controlled animal model. , 2018, , .		1
117	Spatial frequency domain imaging using a snap-shot filter mosaic camera with multi-wavelength sensitive pixels. , 2018, , .		1
118	Special Section Guest Editorial: Special Section on Spatial Frequency Domain Imaging. Journal of Biomedical Optics, 2019, 24, 1.	1.4	1
119	Comparing reduced scattering variation by skin type and tissue location using spatial frequency domain imaging for clinical burn wound imaging. , 2020, , .		1
120	A 2x2-aperture 4-tap multi-modal tissue imager for multi-band SFDI and MELSCI. , 2022, , .		1
121	Demonstration of 3-band spatial frequency domain imaging using an 8-tap CMOS image sensor resistant to subject motion and ambient light. , 2022, , .		1
122	<title>Application of the method of partial least squares to determine chromophore concentrations from fluorescence spectra of turbid samples</title>. , 1996, , .		0
123	<title>Raman spectroscopy for quanitification of polydimethylsiloxane concentration in turbid samples</title>. Proceedings of SPIE, 1997, , .	0.8	0
124	<title>Determination of optical properties in highly attenuating media with an endoscope-compatible reflectance approach</title>. , 2002, , .		0
125	Monitoring temperature non-invasively using broadband Diffuse Optical Spectroscopy. , 2004, , FTuK4.		0
126	Effects of curvature and view angle on quantitative imaging of erythema and melanin content in facial port wine stain skin. , 2004, , .		0

#	Article	IF	Citations
127	Motion correction in spatial frequency domain imaging; optical property determination in pigmented lesions. Proceedings of SPIE, 2011, , .	0.8	0
128	Quantitative long term measurements of burns in a rat model using spatial frequency domain imaging and laser speckle imaging (Conference Presentation). , 2016, , .		0
129	Low-cost tissue simulating phantoms with tunable, wavelength-dependent scattering properties (Conference Presentation). , 2016, , .		0
130	Handheld spatial frequency domain spectrographic imager for depth-sensitive, quantitative spectroscopy of skin tissue. Proceedings of SPIE, 2017, , .	0.8	0
131	Design and fabrication of solid phantoms for NIR water fraction studies. Proceedings of SPIE, 2017, , .	0.8	0
132	Chemometric analysis of FDPM data: Using training sets instead of diffusion theory. , 2000, , .		0
133	Depth-sectioned subsurface imaging in turbid media using spatially modulated illumination. , 2003, , .		0
134	In-vivo optical contrast agent dynamics in tumors with MRI co-registration. , 2003, , .		0
135	Water and Lipid Content Measurements Using Diffuse Optical Spectroscopy and MRI in Emulsion Phantoms. , 2004, , .		0
136	A Diffusive Light Source for Quantification of Optical Properties of Superficial Layers. , 2004, , .		0
137	A Diffusive Light Source for Quantification of Optical Properties of Superficial Layers. , 2004, , .		0
138	Quantitative Recovery of Tissue Optical Properties in the Spatial Frequency Domain Using Modulated Imaging. , 2005, , .		0
139	Diffuse Optical Spectroscopy of Superficial Volumes: Sensitivity to Optical Properties and Sample Thickness. , 2006, , .		0
140	Modulated Imaging: Advancements in Diffuse Optical Tomography and Spectroscopy. , 2006, , .		0
141	Towards 3D mapping and correction of optical properties in turbid media based on spatially modulated illumination. , 2006, , .		0
142	Quantitative determination of blood volume, oxygenation, and edema in port wine stain lesions. , 2006, , .		0
143	Towards functional optical imaging in layered tissues using modulated imaging. , 2006, , .		0
144	Modulated Imaging in a Pre-Clinical Model of Wound Healing. , 2007, , .		0

#	Article	IF	Citations
145	Quantitative Near Infrared Imaging of Skin Flaps. , 2008, , .		0
146	Noncontact imaging of seizures using multispectral spatial frequency domain imaging. , 2010, , .		0
147	Determination of Silicone Concentrations from Raman Spectra using the Method of Partial Least Squares (PLS). , 1998, , .		0
148	Quantitative measurement of optical properties and Hb concentration in a rodent model of inflammatory Meibomian gland dysfunction using spatial frequency domain imaging. Biomedical Optics Express, 2022, 13, 1261.	1.5	0