Michael E Gehm

List of Publications by Citations

79 papers	3,543 citations	20 h-index	59 g-index
101 ext. papers	4,213 ext. citations	4.5 avg, IF	4.92 L-index

#	Paper	IF	Citations
79	Observation of a strongly interacting degenerate Fermi gas of atoms. *Science*, **2002**, 298, 2179-82	33.3	807
78	Evidence for superfluidity in a resonantly interacting Fermi gas. *Physical Review Letters*, **2004**, 92, 150402	7.4	617
77	Single-shot compressive spectral imaging with a dual-disperser architecture. *Optics Express*, **2007**, 15, 14013-27	3.3	361
76	All-optical production of a degenerate Fermi gas. *Physical Review Letters*, **2002**, 88, 120405	7.4	197
75	. *IEEE Transactions on Antennas and Propagation*, **2014**, 62, 1799-1807	4.9	183
74	. *IEEE Transactions on Antennas and Propagation*, **2014**, 62, 2000-2008	4.9	175
73	Multiscale gigapixel photography. *Nature*, **2012**, 486, 386-9	50.4	174
72	Dynamics of noise-induced heating in atom traps. *Physical Review A*, **1998**, 58, 3914-3921	2.6	105
71	Ultrastable CO2 Laser Trapping of Lithium Fermions. *Physical Review Letters*, **1999**, 82, 4204-4207	7.4	87
70	Terahertz electromagnetic crystal waveguide fabricated by polymer jetting rapid prototyping. *Optics Express*, **2011**, 19, 3962-72	3.3	77
69	Static two-dimensional aperture coding for multimodal, multiplex spectroscopy. *Applied Optics*, **2006**, 45, 2965-74	1.7	75
68	Rapid and inexpensive fabrication of terahertz electromagnetic bandgap structures. *Optics Express*, **2008**, 16, 16442-51	3.3	73
67	Quantum-diffractive background gas collisions in atom-trap heating and loss. *Physical Review A*, **1999**, 60, R29-R32	2.6	48
66	Stable, strongly attractive, two-state mixture of lithium fermions in an optical trap. *Physical Review Letters*, **2000**, 85, 2092-5	7.4	46
65	Coded aperture Raman spectroscopy for quantitative measurements of ethanol in a tissue phantom. *Applied Spectroscopy*, **2006**, 60, 663-71	3.1	42
64	Terahertz Horn Antenna Based on Hollow-Core Electromagnetic Crystal (EMXT) Structure. *IEEE Transactions on Antennas and Propagation*, **2012**, 60, 5557-5563	4.9	41
63	Terahertz Digital Holographic Imaging of Voids Within Visibly Opaque Dielectrics. *IEEE Transactions on Terahertz Science and Technology*, **2015**, 5, 110-116	3.4	25

62	High-throughput, multiplexed pushbroom hyperspectral microscopy. *Optics Express*, **2008**, 16, 11032-43	3.3	22
61	Single-shot multispectral imaging through a thin scatterer. *Optica*, **2019**, 6, 864	8.6	22
60	Performance comparison of aperture codes for multimodal, multiplex spectroscopy. *Applied Optics*, **2007**, 46, 4932-42	1.7	21
59	Order of Magnitude Signal Gain in Magnetic Sector Mass Spectrometry Via Aperture Coding. *Journal of the American Society for Mass Spectrometry*, **2015**, 26, 1633-40	3.5	20
58	Adaptive feature specific spectroscopy for rapid chemical identification. *Optics Express*, **2011**, 19, 4595-610	3.3	20
57	Large-Aperture Raman Spectroscopy for Quantitative Chemometrics. *Optics and Photonics News*, **2006**, 17, 42	1.9	20
56	Longwave infrared (LWIR) coded aperture dispersive spectrometer. *Optics Express*, **2007**, 15, 5742-53	3.3	18
55	Multiple order coded aperture spectrometer. *Optics Express*, **2007**, 15, 5625-30	3.3	15
54	Two-dimensional aperture coding for magnetic sector mass spectrometry. *Journal of the American Society for Mass Spectrometry*, **2015**, 26, 248-56	3.5	13
53	Development of a scalable image formation pipeline for multiscale gigapixel photography. *Optics Express*, **2012**, 20, 22048-62	3.3	13
52	Compatibility of Spatially Coded Apertures with a Miniature Mattauch-Herzog Mass Spectrograph. *Journal of the American Society for Mass Spectrometry*, **2016**, 27, 578-84	3.5	10
51	Millimeter wave luneburg lens antenna fabricated by polymer jetting rapid prototyping **2014**,		10
50	Optically Trapped Fermi Gases. *American Scientist*, **2004**, 92, 238	2.7	10
49	Proof of Concept Coded Aperture Miniature Mass Spectrometer Using a Cycloidal Sector Mass Analyzer, a Carbon Nanotube (CNT) Field Emission Electron Ionization Source, and an Array Detector. *Journal of the American Society for Mass Spectrometry*, **2018**, 29, 360-372	3.5	10
48	Gigapixel Imaging with the AWARE Multiscale Camera. *Optics and Photonics News*, **2012**, 23, 31	1.9	9
47	Novel Applications of Rapid Prototyping in Gamma-ray and X-ray Imaging. *IEEE Nuclear Science Symposium Conference Record*, **2009**, 2009, 3322-3326		9
46	Experimental demonstration of an adaptive architecture for direct spectral imaging classification. *Optics Express*, **2016**, 24, 18307-21	3.3	9
45	Coded Apertures in Mass Spectrometry. *Annual Review of Analytical Chemistry*, **2017**, 10, 141-156	12.5	8

44	Compressive mass analysis on quadrupole ion trap systems. *Journal of the American Society for Mass Spectrometry*, **2014**, 25, 1295-304	3.5	8
43	Direct rapid-prototyping fabrication of computer-generated volume holograms in the millimeter-wave and terahertz regime. *Optics Express*, **2014**, 22, 3349-55	3.3	8
42	High gain dielectric reflectarray antennas for THz applications **2013**,		8
41	Investigation of several terahertz electromagnetic band gap structures. *Microwave and Optical Technology Letters*, **2010**, 52, 678-686	1.2	8
40	Three-dimensionally-printed anthropomorphic physical phantom for mammography and digital breast tomosynthesis with custom materials, lesions, and uniform quality control region. *Journal of Medical Imaging*, **2019**, 6, 021604	2.6	8
39	Rapid simulation of X-ray transmission imaging for baggage inspection via GPU-based ray-tracing. *Nuclear Instruments & Methods in Physics Research B*, **2018**, 415, 100-109	1.2	8
38	Measurement-efficient optical wavemeters. *Optics Express*, **2004**, 12, 6219-29	3.3	7
37	Third generation anthropomorphic physical phantom for mammography and DBT: incorporating voxelized 3D printing and uniform chest wall QC region **2017**,		6
36	Raman-induced magnetic resonance imaging of atoms in a magneto-optical trap. *Physical Review A*, **1999**, 60, 4788-4795	2.6	6
35	Second generation anthropomorphic physical phantom for mammography and DBT: Incorporating voxelized 3D printing and inkjet printing of iodinated lesion inserts **2016**,		6
34	Single-shot memory-effect video. *Scientific Reports*, **2018**, 8, 13402	4.9	6
33	Rapid simulation of X-ray scatter measurements for threat detection via GPU-based ray-tracing. *Nuclear Instruments & Methods in Physics Research B*, **2019**, 449, 86-93	1.2	5
32	Information-theoretic analysis of a stimulated-Brillouin-scattering-based slow-light system. *Applied Optics*, **2011**, 50, 6063-72	0.2	5
31	Multi-carrier channeled polarimetry for photoelastic modulator systems. *Optics Letters*, **2018**, 43, 5789-5792	3	5
30	Effects of Magnetic and Electric Field Uniformity on Coded Aperture Imaging Quality in a Cycloidal Mass Analyzer. *Journal of the American Society for Mass Spectrometry*, **2018**, 29, 352-359	3.5	4
29	Systematic design study of an all-optical delay line based on Brillouin scattering enhanced cascade coupled ring resonators. *Journal of Optics (United Kingdom)*, **2010**, 12, 104012	1.7	4
28	Static compressive tracking. *Optics Express*, **2012**, 20, 21160-72	3.3	4
27	The all-seeing baggage scanner. *IEEE Spectrum*, **2020**, 57, 22-27	1.7	3

26	Terahertz all-dielectric EMXT waveguide to planar microstrip transition structure **2011**,		3
25	Compressive sampling strategies for integrated microspectrometers **2006**,		3
24	Resolution and sampling analysis in digital in-line holography with spherical wave illumination. *Optical Engineering*, **2019**, 59, 1	1.1	3
23	Improving the Performance of a Cycloidal Coded-Aperture Miniature Mass Spectrometer. *Journal of the American Society for Mass Spectrometry*, **2021**, 32, 509-518	3.5	3
22	Design, fabrication, and implementation of voxel-based 3D printed textured phantoms for task-based image quality assessment in CT **2016**,		2
21	Model-Based Multiscale Gigapixel Image Formation Pipeline on GPU. *IEEE Transactions on Computational Imaging*, **2017**, 3, 493-502	4.5	2
20	An X-band Luneburg Lens antenna fabricated by rapid prototyping technology **2011**,		2
19	Terahertz electromagnetic crystal (EMXT) based waveguide and horn antenna **2010**,		2
18	Hollow-core electromagnetic band gap (EBG) waveguide fabricated by rapid prototyping for low-loss terahertz guiding **2010**,		2
17	All-dielectric low-loss terahertz waveguide fabricated by rapid prototyping **2009**,		2
16	3D printed anthropomorphic physical phantom for mammography and DBT with high contrast custom materials, lesions and uniform chest wall region **2018**,		2
15	Comparison of thermionic filament and carbon nanotube field emitter-based electron ionization sources in cycloidal coded aperture mass analyzers. *International Journal of Mass Spectrometry*, **2020**, 457, 116415	1.9	2
14	Creating an experimental testbed for information-theoretic analysis of architectures for x-ray anomaly detection **2017**,		1
13	Implementing Sparse Sub-Sampling Methods for Low-Dose/High Speed STEM. *Microscopy and Microanalysis*, **2018**, 24, 1952-1953	0.5	1
12	Comparison of photoconductive antenna performance on LT-GaAs and SI-GaAs substrates **2014**,		1
11	Compressive Classification for TEM-EELS. *Microscopy and Microanalysis*, **2017**, 23, 108-109	0.5	1
10	Petapixel photography and the limits of camera information capacity **2013**,		1
9	Computational optical sensing and imaging: introduction to feature issue. *Applied Optics*, **2013**, 52, COSI1-2		1

8	Compressive measurement for target tracking in persistent, pervasive surveillance applications **2009**,		1
7	Hyperspectral Unmixing using the AFSSI-C **2015**,		1
6	An information theoretic approach to system optimization accounting for material variability **2018**,		1
5	Motivations and methods for the analysis of multi-modality x-ray systems for explosives detection **2019**,		1
4	Simulation-based x-ray system design and analysis: past, present, and future **2019**,		1
3	Computational hyperspectral unmixing using the AFSSI-C **2016**,		1
2	The Long Neglected Cycloidal Mass Analyzer. *Analytical Chemistry*, **2021**, 93, 11357-11363	7.8	1
1	A novel sector mass spectrograph design for high-order coded aperture Mass Spectrometry with stigmatic aberration correction. *International Journal of Mass Spectrometry*, **2020**, 455, 116374	1.9	