Alyosha Molnar

List of Publications by Year
in descending order

53 papers	1,511 citations	516710 16 h-index	580821 25 g-index
53 all docs	53 docs citations	53 times ranked	1390 citing authors

#	Article	IF	Citations
1	Low-Power 2.4-GHz Transceiver With Passive RX Front-End and 400-mV Supply. IEEE Journal of Solid-State Circuits, 2006, 41, 2757-2766.	5.4	233
2	Parallel Processing in Retinal Ganglion Cells: How Integration of Space-Time Patterns of Excitation and Inhibition Form the Spiking Output. Journal of Neurophysiology, 2006, 95, 3810-3822.	1.8	144
3	The In-Crowd Algorithm for Fast Basis Pursuit Denoising. IEEE Transactions on Signal Processing, 2011, 59, 4595-4605.	5.3	117
4	Optimized Design of N-Phase Passive Mixer-First Receivers in Wideband Operation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 2759-2770.	5.4	93
5	Light field image sensors based on the Talbot effect. Applied Optics, 2009, 48, 5897.	2.1	81
6	Crossover inhibition in the retina: circuitry that compensates for nonlinear rectifying synaptic transmission. Journal of Computational Neuroscience, 2009, 27, 569-590.	1.0	77
7	Inhibitory Feedback Shapes Bipolar Cell Responses in the Rabbit Retina. Journal of Neurophysiology, 2007, 98, 3423-3435.	1.8	74
8	Prospects for Wide Bandgap and Ultrawide Bandgap CMOS Devices. IEEE Transactions on Electron Devices, 2020, 67, 4010-4020.	3.0	73
9	Amacrine-to-Amacrine Cell Inhibition in the Rabbit Retina. Journal of Neurophysiology, 2008, 100, 2077-2088.	1.8	65
10	An Orthogonal Current-Reuse Amplifier for Multi-Channel Sensing. IEEE Journal of Solid-State Circuits, 2013, 48, 1487-1496.	5.4	56
11	A Light-Field Image Sensor in 180 nm CMOS. IEEE Journal of Solid-State Circuits, 2012, 47, 257-271.	5.4	47
12	A microscale camera using direct Fourier-domain scene capture. Optics Letters, 2011, 36, 2949.	3.3	42
13	Impedance, filtering and noise in n-phase passive CMOS mixers. , 2012, , .		37
14	ASP Vision: Optically Computing the First Layer of Convolutional Neural Networks Using Angle Sensitive Pixels. , 2016, , .		33
15	A switchable light field camera architecture with Angle Sensitive Pixels and dictionary-based sparse coding. , 2014, , .		28
16	Circuit Techniques for Enhanced Channel Selectivity in Passive Mixer-First Receivers. , 2018, , .		27
17	Effects of LO harmonics and overlap shunting on N-phase passive mixer based receivers. , 2012, , .		26
18	A Wideband Fully Integrated Software-Defined Transceiver for FDD and TDD Operation. IEEE Journal of Solid-State Circuits, 2017, 52, 1274-1285.	5.4	25

#	Article	IF	Citations
19	Zero-power sensors with near-zero-power wakeup switches for reliable sensor platforms. , 2017, , .		25
20	A 768-Channel CMOS Microelectrode Array With Angle Sensitive Pixels for Neuronal Recording. IEEE Sensors Journal, 2013, 13, 3211-3218.	4.7	20
21	A 72 Ã— 60 Angle-Sensitive SPAD Imaging Array for Lens-less FLIM. Sensors, 2016, 16, 1422.	3.8	19
22	A Low-Power Edge Detection Image Sensor Based on Parallel Digital Pulse Computation. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 1043-1047.	3.0	17
23	Angle sensitive pixels in CMOS for lensless 3D imaging. , 2009, , .		16
24	The Impact of LO Phase Noise in N-Path Filters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 1481-1494.	5.4	16
25	Design and Characterization of Enhanced Angle Sensitive Pixels. IEEE Transactions on Electron Devices, 2016, 63, 113-119.	3.0	15
26	Depth Fields: Extending Light Field Techniques to Time-of-Flight Imaging. , 2015, , .		12
27	Dual light field and polarization imaging using CMOS diffractive image sensors. Optics Letters, 2015, 40, 2433.	3.3	11
28	A 50&#x00B5;m pitch, 1120-channel, 20kHz frame rate microelectrode array for slice recording. , 2013, , .		10
29	Enhanced angle sensitive pixels for light field imaging. , 2011, , .		9
30	Fluorescent imaging and localization with angle sensitive pixel arrays in standard CMOS. , 2010, , .		7
31	PZT lateral bimorph based sensor cuboid for near zero power sensor nodes. , 2017, , .		7
32	A low-power orthogonal current-reuse amplifier for parallel sensing applications. , 2010, , .		6
33	Zero Power, Tunable Resonant Microphone with Nanowatt Classifier for Wake-Up Sensing. , 2018, , .		6
34	Modeling and Circuit Design of Associative Memories With Spinâ€"Orbit Torque FETs. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2019, 5, 197-205.	1.5	6
35	Angle sensitive single photon avalanche diode. Applied Physics Letters, 2015, 106, .	3.3	4
36	Impedance Transparency and Performance Metrics of HBT-Based *N*-Path Mixers for mmWave Applications. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 2210-2223.	5.4	4

#	Article	IF	Citations
37	A 3.7-6.5GHz 8-Phase N-Path Mixer-First Receiver with LO Overlap Suppression Achieving <5dB NF and >5dBm OOB B1dB. , 2021, , .		4
38	Self-quenching, Forward-bias-reset for Single Photon Avalanche Detectors in 1.8V, 0.18&#x00B5;m process. , 2011, , .		3
39	Angle-sensitive pixels: a new paradigm for low-power, low-cost 2D and 3D sensing. Proceedings of SPIE, 2012, , .	0.8	3
40	A &#60;12mW, 0.7&#x2013;3.2GHz receiver with resonant multi-phase LO and current reuse harmonic rejection baseband. , 2012, , .		3
41	A scalable CMOS sensor array for neuronal recording and imaging. , 2011, , .		2
42	Scaling Properties of Well-Tiled PFCAs. , 2012, , .		1
43	Broadly tunable frequency division duplex transceiver: Theory and operation. , 2016, , .		1
44	Challenges and approaches to software defined duplexing radio. , 2016, , .		1
45	A Polar Symmetric CMOS Image Sensor for Rotation Invariant Measurement. IEEE Sensors Journal, 2016, 16, 1190-1199.	4.7	1
46	Synthetic Diversity To Mitigate Out-of-Band Interference in Widely Tunable Wireless Receivers. , 2019, , .		1
47	An Integrated, Software-Defined FDD Transceiver: Distributed Duplexing Theory and Operation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 271-283.	5.4	1
48	A Resolution-Adaptive 8 mm^2 9.98 Gb/s 39.7 pJ/b 32-Antenna All-Digital Spatial Equalizer for mmWave Massive MU-MIMO in 65nm CMOS. , 2021, , .		1
49	Mapping Unknown Environments With Instrumented Honey Bees. , 2022, , .		1
50	A sub-threshold voltage ladder rectifier for orthogonal current-reuse neural amplifier. , 2013, , .		0
51	A high-speed polar-symmetric imager for real-time calibration of rotational inertial sensors. , 2013, , .		0
52	Introduction to the Special Issue on the 2017 IEEE International Solid-State Circuits Conference. IEEE Journal of Solid-State Circuits, 2017, 52, 3115-3118.	5.4	0
53	Resolution-Adaptive All-Digital Spatial Equalization for mmWave Massive MU-MIMO. , 2021, , .		0