

# Shoji Kawahito

## List of Publications by Year in descending order

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112  
papers

2,203  
citations

279798

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docs citations

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times ranked

1540  
citing authors

#	ARTICLE	IF	CITATIONS
1	Signal-to-Noise Ratio Enhancement in Cardiac Pulse Measurements Using Multitap CMOS Image Sensors With In-Pixel Temporal Redundant Samplings. IEEE Transactions on Electron Devices, 2022, 69, 2851-2857.	3.0	1
2	Hybrid Time-of-Flight Image Sensors for Middle-Range Outdoor Applications. IEEE Open Journal of the Solid-State Circuits Society, 2022, 2, 38-49.	2.7	5
3	A Dual-Mode 303-Megaframes-per-Second Charge-Domain Time-Compressive Computational CMOS Image Sensor. Sensors, 2022, 22, 1953.	3.8	11
4	Resolving Multi-Path Interference in Compressive Time-of-Flight Depth Imaging with a Multi-Tap Macro-Pixel Computational CMOS Image Sensor. Sensors, 2022, 22, 2442.	3.8	6
5	Development of a Current Injectionâ€”Type Impedance Measurement System for Monitoring Soil Water Content and Ion Concentration. Sensors, 2022, 22, 3509.	3.8	3
6	Low-energy X-ray performance of SOI pixel sensors for astronomy, â€œXRPIXâ€• Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 986, 164745.	1.6	5
7	A Dual NIR-Band Lock-In Pixel CMOS Image Sensor With Device Optimizations for Remote Physiological Monitoring. IEEE Transactions on Electron Devices, 2021, 68, 1688-1693.	3.0	5
8	Improved Correlated Multiple Sampling by Using Interleaved Pixel Source Follower for High-Resolution and High-Framerate CMOS Image Sensor. IEEE Transactions on Electron Devices, 2021, 68, 2326-2334.	3.0	3
9	Proton radiation hardness of x-ray SOI pixel sensors with pinned depleted diode structure. Journal of Astronomical Telescopes, Instruments, and Systems, 2021, 7, .	1.8	3
10	Multi-Tap Time-Resolved CMOS Image Sensors and Their Applications. , 2021, , .		0
11	A Time-of-Flight Range Sensor Using Four-Tap Lock-In Pixels with High near Infrared Sensitivity for LiDAR Applications. Sensors, 2020, 20, 116.	3.8	20
12	Fluoroimmunoassay of influenza virus using sulfur-doped graphitic carbon nitride quantum dots coupled with Ag <sub>2</sub> S nanocrystals. Mikrochimica Acta, 2020, 187, 466.	5.0	17
13	Single-Shot Real-Time Multiple-Path Time-of-Flight Depth Imaging for Multi-Aperture and Macro-Pixel Sensors. , 2020, , .		5
14	An 8-Tap CMOS Lock-In Pixel Image Sensor for Short-Pulse Time-of-Flight Measurements. Sensors, 2020, 20, 1040.	3.8	30
15	A Sub-100 $\mu$ m-Range-Resolution Time-of-Flight Range Image Sensor With Three-Tap Lock-In Pixels, Non-Overlapping Gate Clock, and Reference Plane Sampling. IEEE Journal of Solid-State Circuits, 2019, 54, 2291-2303.	5.4	24
16	CMOS Image Sensor with Lock-In Pixels for Biomedical Applications. , 2019, , .		0
17	Noncontact heart rate measurement using a high-sensitivity camera in a low-light environment. Artificial Life and Robotics, 2019, 24, 6-11.	1.2	2
18	A Time-Resolved NIR Lock-In Pixel CMOS Image Sensor With Background Cancelling Capability for Remote Heart Rate Detection. IEEE Journal of Solid-State Circuits, 2019, 54, 978-991.	5.4	7

#	ARTICLE	IF	CITATIONS
19	Widefield multifrequency fluorescence lifetime imaging using a two-tap complementary metal-oxide semiconductor camera with lateral electric field charge modulators. <i>Journal of Biophotonics</i> , 2019, 12, e201800223.	2.3	6
20	Evaluation of Kyoto's event-driven X-ray astronomical SOI pixel sensor with a large imaging area. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2019, 924, 400-403.	1.6	4
21	2. Topic (1) Multi-spectral Imaging by Plasmonic Color Filter. <i>Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers</i> , 2019, 73, 243-246.	0.1	0
22	3. Topic (2) Lock-in Pixel Based CMOS Image Sensors. <i>Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers</i> , 2019, 73, 247-251.	0.1	0
23	Noncontact pulse wave detection by two-band infrared video-based measurement on face without visible lighting. <i>Artificial Life and Robotics</i> , 2018, 23, 345-352.	1.2	4
24	Column-Parallel ADCs for CMOS Image Sensors and Their FoM-Based Evaluations. <i>IEICE Transactions on Electronics</i> , 2018, E101.C, 444-456.	0.6	22
25	A Time-Resolved Four-Tap Lock-In Pixel CMOS Image Sensor for Real-Time Fluorescence Lifetime Imaging Microscopy. <i>IEEE Journal of Solid-State Circuits</i> , 2018, 53, 2319-2330.	5.4	36
26	The Dynamic Photometric Stereo Method Using a Multi-Tap CMOS Image Sensor. <i>Sensors</i> , 2018, 18, 786.	3.8	9
27	A Low-Noise X-ray Astronomical Silicon-On-Insulator Pixel Detector Using a Pinned Depleted Diode Structure. <i>Sensors</i> , 2018, 18, 27.	3.8	26
28	A Silicon-on-Insulator-Based Dual-Gain Charge-Sensitive Pixel Detector for Low-Noise X-ray Imaging for Future Astronomical Satellite Missions. <i>Sensors</i> , 2018, 18, 1789.	3.8	5
29	Multi-Aperture-Based Probabilistic Noise Reduction of Random Telegraph Signal Noise and Photon Shot Noise in Semi-Photon-Counting Complementary-Metal-Oxide-Semiconductor Image Sensor. <i>Sensors</i> , 2018, 18, 977.	3.8	1
30	3. Ultra-Low-Noise CMOS Image Sensor with Reset-Gate-Less Pixel. <i>Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers</i> , 2018, 72, 204-207.	0.1	0
31	Development of a two-tap time-resolved CMOS lock-in pixel image sensor with high charge storability and low temporal noise. , 2017, , .		0
32	Label-Free Biomedical Imaging Using High-Speed Lock-In Pixel Sensor for Stimulated Raman Scattering. <i>Sensors</i> , 2017, 17, 2581.	3.8	8
33	A 19-bit column-parallel folding-integration/cyclic cascaded ADC with a pre-charging technique for CMOS image sensors. <i>IEICE Electronics Express</i> , 2017, 14, 20161199-20161199.	0.8	2
34	Precise and High-Speed Technique of Digital Calibration for Column-Parallel Two-Stage Cyclic ADC Suitable for 33-Mpixel 120-fps CMOS Image Sensor. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2017, 137, 65-71.	0.1	0
35	A Time-of-Flight CMOS Range Image Sensor Using 4-Tap Output Pixels with Lateral-Electric-Field Control. <i>IS&amp;T International Symposium on Electronic Imaging</i> , 2016, 28, 1-6.	0.4	14
36	A Stimulated Raman Scattering CMOS Pixel Using a High-Speed Charge Modulator and Lock-in Amplifier. <i>Sensors</i> , 2016, 16, 532.	3.8	17

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37	Design of a Sub-Picosecond Jitter with Adjustable-Range CMOS Delay-Locked Loop for High-Speed and Low-Power Applications. <i>Sensors</i> , 2016, 16, 1593.	3.8	2
38	Noise Reduction Effect of Multiple-Sampling-Based Signal-Readout Circuits for Ultra-Low Noise CMOS Image Sensors. <i>Sensors</i> , 2016, 16, 1867.	3.8	20
39	Dynamic photometric stereo method using multi-tap CMOS image sensor. , 2016, , .		1
40	A variable-threshold voltage technique to enhance the linearity of folding-integration/cyclic cascaded ADCs. , 2016, , .		2
41	A review on high-resolution CMOS delay lines: towards sub-picosecond jitter performance. SpringerPlus, 2016, 5, 434.	1.2	40
42	A high time-resolution two-tap CMOS lock-in pixel image sensor for time-resolved measurements and its applications. , 2016, , .		1
43	An ultrasensitive SiO <sub>2</sub> -encapsulated alloyed CdZnSeS quantum dot-molecular beacon nanobiosensor for norovirus. <i>Biosensors and Bioelectronics</i> , 2016, 86, 135-142.	10.1	46
44	Mechanical scanner-less multi-beam confocal microscope with wavefront modulation. <i>Optical Review</i> , 2016, 23, 364-368.	2.0	3
45	A 10 ps Time-Resolution CMOS Image Sensor With Two-Tap True-CDS Lock-In Pixels for Fluorescence Lifetime Imaging. <i>IEEE Journal of Solid-State Circuits</i> , 2016, 51, 141-154.	5.4	41
46	A column-parallel clock skew self-calibration circuit for time-resolved CMOS image sensors. <i>IEICE Electronics Express</i> , 2015, 12, 20150911-20150911.	0.8	5
47	Evaluation of dual-wavelength excitation autofluorescence imaging of colorectal tumours with a high-sensitivity CMOS imager: a cross-sectional study. <i>BMC Gastroenterology</i> , 2015, 15, 110.	2.0	1
48	[Paper] A Low Noise CMOS Image Sensor with Pixel Optimization and Noise Robust Column-parallel Readout Circuits for Low-light Levels. <i>ITE Transactions on Media Technology and Applications</i> , 2015, 3, 258-262.	0.5	3
49	A Time-of-Flight Range Image Sensor With Background Canceling Lock-in Pixels Based on Lateral Electric Field Charge Modulation. <i>IEEE Journal of the Electron Devices Society</i> , 2015, 3, 267-275.	2.1	123
50	A 0.27e-rms Read Noise 220- $\hat{1}$ / <sub>4</sub> V/e-Conversion Gain Reset-Gate-Less CMOS Image Sensor With 0.11- $\hat{1}$ / <sub>4</sub> m CIS Process. <i>IEEE Electron Device Letters</i> , 2015, 36, 1344-1347.	3.9	74
51	A digital calibration technique for folding-integration/cyclic cascaded ADCs. , 2015, , .		2
52	Image recognition system using an optical Fourier transform on a dynamically reconfigurable vision architecture. , 2014, , .		0
53	RTS Noise and Dark Current White Defects Reduction Using Selective Averaging Based on a Multi-Aperture System. <i>Sensors</i> , 2014, 14, 1528-1543.	3.8	12
54	Lock-in pixels readout circuit using a high speed lateral electric field modulator with differential charge accumulation for stimulated Raman scattering imager. , 2014, , .		0

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55	A low-noise high-sensitivity CMOS image sensor for scientific and industrial applications. , 2014, , .		7
56	A Low Dark Leakage Current High-Sensitivity CMOS Image Sensor With STI-Less Shared Pixel Design. IEEE Transactions on Electron Devices, 2014, 61, 2093-2097.	3.0	15
57	Optical Vehicle-to-Vehicle Communication System Using LED Transmitter and Camera Receiver. IEEE Photonics Journal, 2014, 6, 1-14.	2.0	206
58	Extremely small differential non-linearity in a DMOS capacitor based cyclic ADC for CMOS image sensors. IEICE Electronics Express, 2014, 11, 20140893-20140893.	0.8	2
59	[Paper] Dark Current Characterization of Low-noise CMOS Global Shutter Pixels Using Pinned Storage Diodes. ITE Transactions on Media Technology and Applications, 2014, 2, 108-113.	0.5	0
60	CMOS Image Sensors. IEJ Transactions on Sensors and Micromachines, 2014, 134, 199-205.	0.1	0
61	Thermal analysis of a cooling module for an image sensor with thermally isolated pixel area. , 2013, , .		0
62	Multi-aperture high-speed CMOS imager. , 2013, , .		0
63	A Low Noise Wide Dynamic Range CMOS Image Sensor With Low-Noise Transistors and 17b Column-Parallel ADCs. IEEE Sensors Journal, 2013, 13, 2922-2929.	4.7	22
64	RTS noise reduction of CMOS image sensors using amplifier-selection pixels. IEICE Electronics Express, 2013, 10, 20130299-20130299.	0.8	2
65	Design of a Digitally Error-Corrected Pipeline ADC Using Incomplete Settling of Pre-Charged Residue Amplifiers. IEICE Transactions on Electronics, 2013, E96.C, 828-837.	0.6	0
66	A Time-Resolved CMOS Image Sensor With Draining-Only Modulation Pixels for Fluorescence Lifetime Imaging. IEEE Transactions on Electron Devices, 2012, 59, 2715-2722.	3.0	104
67	A distributed ramp signal generator of column-parallel single-slope ADCs for CMOS image sensors. IEICE Electronics Express, 2012, 9, 1893-1899.	0.8	2
68	A single-ended CMOS chopper amplifier for 1/f noise reduction of n-channel MOS transistors. IEICE Electronics Express, 2012, 9, 98-103.	0.8	1
69	Gray-level image recognition on a dynamically reconfigurable vision architecture. , 2012, , .		0
70	A 33-Megapixel 120-Frames-Per-Second 2.5-Watt CMOS Image Sensor With Column-Parallel Two-Stage Cyclic Analog-to-Digital Converters. IEEE Transactions on Electron Devices, 2012, 59, 3426-3433.	3.0	84
71	A Low-Noise High-Dynamic-Range 17-b 1.3-Megapixel 30-fps CMOS Image Sensor With Column-Parallel Two-Stage Folding-Integration/Cyclic ADC. IEEE Transactions on Electron Devices, 2012, 59, 3396-3400.	3.0	94
72	A low noise wide dynamic range CMOS image sensor with low-noise transistors and 17b column-parallel ADC. , 2012, , .		3

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73	A Low-Noise High Intrasene Dynamic Range CMOS Image Sensor With a 13 to 19b Variable-Resolution Column-Parallel Folding-Integration/Cyclic ADC. IEEE Journal of Solid-State Circuits, 2012, 47, 272-283.	5.4	270
74	Response-Time Acceleration of a Frontend Amplifier for High Output Impedance Sensors. IEICE Transactions on Electronics, 2012, E95.C, 1543-1548.	0.6	0
75	Parallel template matching operations on a dynamically reconfigurable vision-chip architecture. , 2011, , .		2
76	Selection of amplifier for optimized charge transfer in active pixel CMOS time of flight (TOF) image sensors. IEICE Electronics Express, 2011, 8, 1913-1919.	0.8	1
77	A Two-Stage Charge Transfer Active Pixel CMOS Image Sensor With Low-Noise Global Shuttering and a Dual-Shuttering Mode. IEEE Transactions on Electron Devices, 2011, 58, 740-747.	3.0	29
78	Effects of Negative-Bias Operation and Optical Stress on Dark Current in CMOS Image Sensors. IEEE Transactions on Electron Devices, 2010, 57, 1512-1518.	3.0	25
79	Low-noise readout circuits with a response time acceleration technique for high output impedance sensors. , 2010, , .		2
80	Image Sensing Technology and Their Applications: Empirical Verification of Range Resolution for a TOF Range Image Sensor with Periodical Charge Draining Operation Under Influence of Ambient Light. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2010, 64, 373-380.	0.1	1
81	A Range-Shift Technique for TOF Range Image Sensors. IEEJ Transactions on Sensors and Micromachines, 2009, 129, 421-425.	0.1	4
82	A CMOS Image Sensor With In-Pixel Two-Stage Charge Transfer for Fluorescence Lifetime Imaging. IEEE Transactions on Electron Devices, 2009, 56, 214-221.	3.0	50
83	A High-Speed Low-Noise CMOS Image Sensor With 13-b Column-Parallel Single-Ended Cyclic ADCs. IEEE Transactions on Electron Devices, 2009, 56, 2414-2422.	3.0	102
84	A CMOS imager and 2-D light pulse receiver array for spatial optical communication. , 2009, , .		9
85	A High-Speed CMOS Image Sensor with Global Electronic Shutter Pixels Using Pinned Diodes. IEEJ Transactions on Sensors and Micromachines, 2009, 129, 321-327.	0.1	0
86	A New Calibration Method for Sampling Clock Skew in Time-interleaved ADC. , 2008, , .		1
87	TOF range image sensor using a range-shift technique. , 2008, , .		6
88	A Dynamic Range Expansion Technique for CMOS Image Sensors with Dual Charge Storage in a Pixel and Multiple Sampling. Sensors, 2008, 8, 1915-1926.	3.8	13
89	Image Electronics; Information Sising. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2008, 62, 1189-1197.	0.1	0
90	A CMOS Time-of-Flight Range Image Sensor With Gates-on-Field-Oxide Structure. IEEE Sensors Journal, 2007, 7, 1578-1586.	4.7	144

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91	A High-Speed CMOS Image Sensor with On-chip Parallel Image Compression Circuits. , 2007, , .		18
92	A low-power transmitter design for inductive data link with class-F switching operation. IEICE Electronics Express, 2007, 4, 42-47.	0.8	2
93	A High-Speed, High-Sensitivity Digital CMOS Image Sensor With a Global Shutter and 12-bit Column-Parallel Cyclic A/D Converters. IEEE Journal of Solid-State Circuits, 2007, 42, 766-774.	5.4	109
94	A Low-Power Low-Voltage 10-bit 100-MSample/s Pipeline A/D Converter Using Capacitance Coupling Techniques. IEEE Journal of Solid-State Circuits, 2007, 42, 757-765.	5.4	45
95	A 14b Low-power Pipeline A/D Converter Using a Pre-charging Technique. , 2007, , .		5
96	A Wide-Dynamic-Range CMOS Image Sensor Based on Multiple Short Exposure-Time Readout With Multiple-Resolution Column-Parallel ADC. IEEE Sensors Journal, 2007, 7, 151-158.	4.7	44
97	A Digital-Calibration Technique for Redundant Radix-4 Pipelined Analog-to-Digital Converters. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 2301-2311.	4.7	6
98	Shielded-Loop-Type Onchip Magnetic-Field Probe to Evaluate Radiated Emission From Thin-Film Noise Suppressor. IEEE Transactions on Magnetics, 2007, 43, 2370-2372.	2.1	22
99	Timing Error Calibration in Time-Interleaved ADC by Sampling Clock Phase Adjustment. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	3
100	Design of Parallel Image Compression Circuits for High-speed CMOS Image Sensors. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2007, 61, 369-377.	0.1	0
101	A CMOS Image Sensor for Fluorescence Lifetime Imaging. , 2006, , .		1
102	A CMOS One-chip Wireless Camera with Digital Image Transmission Function for Capsule Endoscopes. IEIJ Transactions on Sensors and Micromachines, 2006, 126, 318-324.	0.1	6
103	Sensor array characteristics of MOS Hall-plates and the comparison with split-drain MAGFETs. IEICE Electronics Express, 2006, 3, 328-332.	0.8	2
104	Circuit and Device Technologies for CMOS functional Image Sensors. , 2006, , .		5
105	1-1 Information Sensing. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2006, 60, 1160-1168.	0.1	0
106	Effectiveness of a correlated multiple sampling differential averager for reducing 1/f noise. IEICE Electronics Express, 2005, 2, 379-383.	0.8	31
107	A new active pixel structure with a pinned photodiode for wide dynamic range image sensors. IEICE Electronics Express, 2005, 2, 482-487.	0.8	1
108	A 142dB Dynamic Range CMOS Image Sensor with Multiple Exposure Time Signals. , 2005, , .		21

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109	A JFET-CMOS Technology for Low-Noise Sensor Interface Circuits. IEEJ Transactions on Sensors and Micromachines, 2003, 123, 422-428.	0.1	2
110	Recent Developments of CMOS Image Sensors. IEEJ Transactions on Sensors and Micromachines, 2003, 123, 387-391.	0.1	0
111	A Bidirectional Multiple Charge Transfer Active Pixel Image Sensor for Low-Power Focal Plane Motion Vector Estimation. IEEJ Transactions on Sensors and Micromachines, 2001, 121, 1-7.	0.1	2
112	A Method for Integrating Gamma Correction and Gain Control Functions Using a Logarithmic Compression CMOS Image Sensor. IEEJ Transactions on Electronics, Information and Systems, 2001, 121, 1312-1317.	0.2	0