Tetsuya Hayashi

List of Publications by Year
in descending order

100	3,008	430754 18	552653 26
papers	citations	h-index	g-index

101	101	101	1133
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Uncoupled Multi-core Fiber Design for Practical Bidirectional Optical Communications. , 2022, , .		13
2	Accuracy of analytical expressions for Rayleigh backscattered crosstalk in bidirectional multi-core fiber transmissions. Optics Express, 2022, 30, 23943.	1.7	3
3	Randomly-Coupled Multi-Core Fiber Technology. Proceedings of the IEEE, 2022, 110, 1786-1803.	16.4	18
4	Highly Spectral Efficient C + L-Band Transmission Over a 38-Core-3-Mode Fiber. Journal of Lightwave Technology, 2021, 39, 1048-1055.	2.7	22
5	Simple-structure low-loss multi-core fiber LC connector using an align-by-contact method. Optics Express, 2021, 29, 9157.	1.7	6
6	Characterization and stability measurement of deployed multicore fibers for quantum applications. Photonics Research, 2021, 9, 1992.	3.4	8
7	Measurement of Mode Dependent Loss of Randomly-Coupled Multi-Core Fiber using Scrambling Method. , 2021, , .		2
8	Transfer Matrix Characterization and Mode-Dependent Loss Optimization of Packaged 7-Core Coupled-Core EDFA. , 2021, , .		3
9	Characterisation of a Coupled-Core Fiber Using Dual-Comb Swept-Wavelength Interferometry. , 2021, , .		3
10	Advances in low-loss, large-area, and multicore fibers. , 2020, , 3-50.		20
11	Random Polarization-Mode Coupling Explains Inter-Core Crosstalk in Uncoupled Multi-Core Fibers. , 2020, , .		5
12	Role of polarization-mode coupling in the crosstalk between cores of weakly-coupled multi-core fibers. Optics Express, 2020, 28, 12847.	1.7	23
13	10.66 Peta-Bit/s Transmission over a 38-Core-Three-Mode Fiber. , 2020, , .		84
14	Evaluation of Dynamic Skew on Spooled and Deployed Multicore Fibers Using O-Band Signals. , 2020, , .		5
15	Transmission over Randomly-Coupled 4-Core Fiber in Field-Deployed Multi-Core Fiber Cable. , 2020, , .		10
16	Multi-Span Transmission over 65 km 38-Core 3-Mode Fiber. , 2020, , .		4
17	Transfer Matrix Characterization of Field-Deployed MCFs. , 2020, , .		5
18	Simple-Structure LC-Type Multi-Core Fiber Connector with Low Insertion Loss. , 2020, , .		4

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19	MCF-SMF Hybrid Low-Latency Circuit-Switched Optical Network for Disaggregated Data Centers. Journal of Lightwave Technology, 2019, 37, 4017-4029.	2.7	8
20	228-Spatial-Channel Bi-Directional Data Communication System Enabled by 39-Core 3-Mode Fiber. Journal of Lightwave Technology, 2019, 37, 1756-1763.	2.7	31
21	Stable Measurement of Near/Far Field Profiles of Coupled Multi-Core Fiber. , 2019, , .		1
22	Field-Deployed Multi-Core Fiber Testbed. , 2019, , .		44
23	Multi-core Fibers for Space Division Multiplexing. , 2019, , 99-145.		3
24	Low-Loss Uncoupled Two-Core Fiber for Power Efficient Practical Submarine Transmission. , 2019, , .		17
25	Spatial Mode Dispersion Suppressed Randomly-Coupled Multi-Core Fiber in Straightened Loose-Tube Cable. , 2019, , .		6
26	Coupled-Core Transmission over 7-Core Fiber. , 2019, , .		58
27	Experimental Investigation of Static and Dynamic Crosstalk in Trench-Assisted Multi-Core Fiber. , 2019, , .		8
28	Multi-core Fibers for Space Division Multiplexing. , 2019, , 1-47.		0
29	Characterization of Coupled-Core Fiber Amplifiers Using Swept-Wavelength Interferometer. , 2019, , .		1
30	Modal Dynamics in Spatially Multiplexed Links. , 2019, , .		3
31	10.16-Peta-bit/s Dense SDM/WDM Transmission over 6-Mode 19-Core Fiber across the C+L Band. Journal of Lightwave Technology, 2018, , 1-1.	2.7	77
32	Accurate Passive Rotational Alignment of Multi-Core Fibre with Double-D-Shape Cladding on V Groove. , 2018, , .		0
33	Multi-core Fibers for Space Division Multiplexing. , 2018, , 1-46.		1
34	Design of Multi-Core and Coupled-Core Fibers. , 2018, , .		1
35	Multi-core Fibers for Space Division Multiplexing. , 2018, , 1-46.		2
36	Effective area measurement of few-mode fiber using far field scan technique with Hankel transform generalized for circularly-asymmetric mode. Optics Express, 2018, 26, 11137.	1.7	7

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37	Ultra-High-Density MCF Connector Technology. , 2018, , .		3
38	Stable Measurement of Effective Area in Coupled Multi-core Fiber. , 2018, , .		5
39	Low Loss Splicing Between Coupled Multi-Core Fibers with Thermally Expanded Cores. , 2018, , .		2
40	Physical-contact 256-core MPO Connector with Flat Polished Multi-core Fibers. , 2018, , .		2
41	Cladding-Pumped Coupled-Core EDFA. , 2018, , .		0
42	Coupled multicore fiber for space-division multiplexed transmission. Proceedings of SPIE, 2017, , .	0.8	5
43	Six-Mode 19-Core Fiber With 114 Spatial Modes for Weakly-Coupled Mode-Division-Multiplexed Transmission. Journal of Lightwave Technology, 2017, 35, 748-754.	2.7	25
44	Record-Low Spatial Mode Dispersion and Ultra-Low Loss Coupled Multi-Core Fiber for Ultra-Long-Haul Transmission. Journal of Lightwave Technology, 2017, 35, 450-457.	2.7	126
45	Multi-Core Fibre with Concaved Double-D Shape Cross Section. , 2017, , .		6
46	Long-Haul Transmission over Multi-Core Fibers with Coupled Cores. , 2017, , .		31
47	End-to-End Multi-Core Fibre Transmission Link Enabled by Silicon Photonics Transceiver with Grating Coupler Array. , 2017, , .		17
48	10.16 Peta-bit/s Dense SDM/WDM transmission over Low-DMD 6-Mode 19-Core Fibre Across C+L Band. , 2017, , .		85
49	Bandwidth density as a figure of merit for few-mode multi-core fibers. Optics Express, 2017, 25, 24983.	1.7	3
50	Coupled-Core Optical Amplifier. , 2017, , .		22
51	MCF-enabled Ultra-High-Density 256-core MT Connector and 96-core Physical-Contact MPO Connector. , 2017, , .		6
52	Dispersion Impact on the Crosstalk Amplitude Response of Homogeneous Multi-Core Fibers. IEEE Photonics Technology Letters, 2016, 28, 1858-1861.	1.3	36
53	Ultra-low loss fiber for practicable trans-oceanic high capacity transmission. , 2016, , .		0
54	Multi-core optical fibers realizing high-density/-capacity transmissions. , 2016, , .		6

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55	Characterization of interconnect multi-core fiber cable: Mechanical/thermal characteristics and inter-core crosstalk of the straightened cable. , 2016, , .		8
56	Demonstration of Cladding-Pumped Six-Core Erbium-Doped Fiber Amplifier. Journal of Lightwave Technology, 2016, 34, 1654-1660.	2.7	25
57	125-Î¼m-Cladding Eight-Core Multi-Core Fiber Realizing Ultra-High-Density Cable Suitable for O-Band Short-Reach Optical Interconnects. Journal of Lightwave Technology, 2016, 34, 85-92.	2.7	71
58	Large Spatial Channel (36-Core Ã— 3 mode) Heterogeneous Few-Mode Multicore Fiber. Journal of Lightwave Technology, 2016, 34, 93-103.	2.7	97
59	Time and Modulation Frequency Dependence of Crosstalk in Homogeneous Multi-Core Fibers. Journal of Lightwave Technology, 2016, 34, 441-447.	2.7	90
60	Minimizing the Modal Delay Spread in Coupled-Core Two-Core Fiber. , 2016, , .		12
61	125-Âµm-cladding Coupled Multi-core Fiber with Ultra-low Loss of 0.158 dB/km and Record-low Spatial Mode Dispersion of 6.1 ps/km1/2. , 2016, , .		25
62	6-mode 19-core Fiber for Weakly-coupled Mode-multiplexed Transmission over Uncoupled Cores. , 2016, , .		18
63	Effective Area Measurement of Few-Mode Fiber Using Far Field Scan Technique with Hankel Transform Generalized for Circularly-Asymmetric Mode. , 2016, , .		2
64	Transmission over coupled six-core fiber with two in-line cladding-pumped six-core EDFAs. , 2015, , .		5
65	Experimental Evaluation of the Time and Frequency Crosstalk Dependency in a 7-Core Multi-Core Fiber. , 2015, , .		5
66	2.15 Pb/s transmission using a 22 core homogeneous single-mode multi-core fiber and wideband optical comb. , 2015, , .		189
67	Coupled-core multi-core fibers: High-spatial-density optical transmission fibers with low differential modal properties. , 2015, , .		20
68	Spatial-Spectral-Efficiency-enhanced Multi-Core Fiber. , 2015, , .		9
69	125-Âµm-Cladding 8-Core Multi-Core Fiber Realizing Ultra-High-Density Cable Suitable for O-Band Short-Reach Optical Interconnects. , 2015, , .		20
70	Realizing a 36-core, 3-mode Fiber with 108 Spatial Channels. , 2015, , .		90
71	Space-Division Multiplexed Transmission Over 3Ã—3 Coupled-Core Multicore Fiber. , 2014, , .		20
72	Dependence of Crosstalk Increase due to Tight Bend on Core Layout of Multi-Core Fiber. , 2014, , .		4

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73	Behavior of Inter-Core Crosstalk as a Noise and Its Effect on <i>Q</i>-Factor in Multi-Core Fiber. IEICE Transactions on Communications, 2014, E97.B, 936-944.	0.4	63
74	Design strategy of uncoupled multicore fiber enabling high spatial capacity transmission. , 2013, , .		7
75	Multi-Core Optical Fibers. , 2013, , 321-352.		9
76	Crosstalk Increase in Tightly Bent Multi-Core Fiber Due to Power Coupling Mediated by Cladding Modes. , 2013, , .		0
77	Physical interpretation of intercore crosstalk in multicore fiber: effects of macrobend, structure fluctuation, and microbend. Optics Express, 2013, 21, 5401.	1.7	87
78	Ultra-Low-Crosstalk Multi-Core Fiber Realizing Space-Division Multiplexed Ultra-Long-Haul Transmission. , 2012, , .		4
79	Space-Division Multiplexed Transmission over 4200-km 3-Core Microstructured Fiber. , 2012, , .		67
80	Multi-core fibers and their crosstalk characteristics. , 2012, , .		1
81	Uncoupled multi-core fiber enhancing signal-to-noise ratio. Optics Express, 2012, 20, B94.	1.7	71
82	Characterization of Crosstalk in Ultra-Low-Crosstalk Multi-Core Fiber. Journal of Lightwave Technology, 2012, 30, 583-589.	2.7	170
83	Space Division Multiplexed Transmission of 109-Tb/s Data Signals Using Homogeneous Seven-Core Fiber. Journal of Lightwave Technology, 2012, 30, 658-665.	2.7	94
84	Low-Loss and Large-Aeff Multi-core Fiber for SNR Enhancement. , 2012, , .		7
85	Multi-Core Fibers for High Capacity Transmission. , 2012, , .		16
86	Design and fabrication of ultra-low crosstalk and low-loss multi-core fiber. Optics Express, 2011, 19, 16576.	1.7	493
87	Propagation of Laguerre-Gaussian mode light through multi-core fiber at telecom wavelength. , 2011, , .		2
88	Ultra-Low-Crosstalk Multi-Core Fiber Feasible to Ultra-Long-Haul Transmission. , 2011, , .		20
89	Propagation Characteristics of Seven-core Fiber for Spatial and Wavelength Division Multiplexed 10-Gbit/s Channels. , 2011, , .		12
90	Coherent 1200-km 6 Ã— 6 MIMO Mode-Multiplexed Transmission over 3-core Microstructured Fiber. , 2011, , .		22

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91	MIMO-based Signal Processing of Spatially Multiplexed 112-Gb/s PDM-QPSK Signals using Strongly-Coupled 3-Core Fiber. , 2011, , .		13
92	109-Tb/s (7Ã—97Ã—172-Gb/s SDM/WDM/PDM) QPSK transmission through 16.8-km homogeneous multi-core fiber. , 2011, , .		49
93	Microbending-induced Crosstalk Increase in Heterogeneous Multi-Core Fiber. , 2011, , .		5
94	World first mode/spatial division multiplexing in multi-core fiber using Laguerre-Gaussian mode. , 2011, , .		11
95	Low-Crosstalk and Low-Loss Multi-Core Fiber Utilizing Fiber Bend. , 2011, , .		37
96	Ultra-Low-Crosstalk Multi-Core Fiber Feasible to Ultra-Long-Haul Transmission. , 2011, , .		22
97	Crosstalk variation of multi-core fibre due to fibre bend. , 2010, , .		67
98	Relation between Fiber Parameters and Polarization Changes due to Mechanical Vibrations. , 2009, , .		0
99	Multiplexed FBG Sensor System by Synthesis of Optical Coherence Function with Active Beat Compensation. , 2006, , .		3
100	High-speed interrogation of multiplexed fiber Bragg grating sensors with similar Bragg wavelength by synthesis of optical coherence function. , 2005, 6004, 65.		4