

# Aymeric Robert

## List of Publications by Year in descending order

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93  
papers

3,889  
citations

159585

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h-index

128289

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g-index

94  
all docs

94  
docs citations

94  
times ranked

5023  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonuniform Flow Dynamics Probed by Nanosecond X-Ray Speckle Visibility Spectroscopy. Physical Review Letters, 2021, 127, 058001.	7.8	9
2	Time-resolved in situ visualization of the structural response of zeolites during catalysis. Nature Communications, 2020, 11, 5901.	12.8	11
3	Speckle correlation as a monitor of X-ray free-electron laser induced crystal lattice deformation. Journal of Synchrotron Radiation, 2020, 27, 1470-1476.	2.4	1
4	Femtosecond electronic structure response to high intensity XFEL pulses probed by iron X-ray emission spectroscopy. Scientific Reports, 2020, 10, 16837.	3.3	13
5	Double-pulse speckle contrast correlations with near Fourier transform limited free-electron laser light using hard X-ray split-and-delay. Scientific Reports, 2020, 10, 5054.	3.3	7
6	Realizing split-pulse x-ray photon correlation spectroscopy to measure ultrafast dynamics in complex matter. Physical Review Research, 2020, 2, .	3.6	12
7	Disentangling transient charge order from structural dynamics contributions during coherent atomic motion studied by ultrafast resonant x-ray diffraction. Physical Review B, 2019, 99, .	3.2	7
8	Design of a compact hard x-ray split-delay system based on variable-gap channelcut crystals. AIP Conference Proceedings, 2019, , .	0.4	2
9	Compact hard x-ray split-delay system based on variable-gap channel-cut crystals. Optics Letters, 2019, 44, 2582.	3.3	18
10	Measurement of the absolute number of photons of the hard X-ray beamline at the Linac Coherent Light Source. Journal of Synchrotron Radiation, 2019, 26, 320-327.	2.4	7
11	Higher order modes at FELs: a machine interpretation. , 2019, , .		0
12	Pulse power measurements and attenuator characterization of the hard X-ray beamline at the Linac Coherent Light Source. , 2019, , .		0
13	Towards ultrafast dynamics with split-pulse X-ray photon correlation spectroscopy at free electron laser sources. Nature Communications, 2018, 9, 1704.	12.8	55
14	Coherent X-rays reveal the influence of cage effects on ultrafast water dynamics. Nature Communications, 2018, 9, 1917.	12.8	59
15	Performance of a hard X-ray split-and-delay optical system with a wavefront division. Journal of Synchrotron Radiation, 2018, 25, 20-25.	2.4	25
16	Pulse intensity characterization of the LCLS nanosecond double-bunch mode of operation. Journal of Synchrotron Radiation, 2018, 25, 642-649.	2.4	14
17	Direct experimental observation of the gas density depression effect using a two-bunch X-ray FEL beam. Journal of Synchrotron Radiation, 2018, 25, 145-150.	2.4	2
18	Characterization of the LCLS "nanosecond two-bunch" mode for x-ray speckle visibility spectroscopy experiments. , 2017, , .		7

#	ARTICLE	IF	CITATIONS
19	Development of a hard x-ray split-delay system at the Linac Coherent Light Source. Proceedings of SPIE, 2017, , .	0.8	21
20	Single-shot beam profile diagnostics for x-ray FEL's using gas fluorescence. , 2017, , .		0
21	Design of a Multi-DOF Motion System for X-Ray Split and Delay. , 2017, , .		0
22	X-ray spectrometer based on a bent diamond crystal for high repetition rate free-electron laser applications. Optics Express, 2017, 25, 2852.	3.4	18
23	Characterization of temporal coherence of hard X-ray free-electron laser pulses with single-shot interferograms. IUCr, 2017, 4, 728-733.	2.2	32
24	ePix100 camera: Use and applications at LCLS. AIP Conference Proceedings, 2016, , .	0.4	14
25	A liquid jet setup for x-ray scattering experiments on complex liquids at free-electron laser sources. Review of Scientific Instruments, 2016, 87, 063905.	1.3	9
26	Ultrafast energy- and momentum-resolved dynamics of magnetic correlations in the photo-doped Mott insulator Sr2IrO4. Nature Materials, 2016, 15, 601-605.	27.5	120
27	Itinerant and Localized Magnetization Dynamics in Antiferromagnetic Ho. Physical Review Letters, 2016, 116, 257202.	7.8	27
28	Linac Coherent Light Source: The first five years. Reviews of Modern Physics, 2016, 88, .	45.6	477
29	Application of an ePix100 detector for coherent scattering using a hard X-ray free-electron laser. Journal of Synchrotron Radiation, 2016, 23, 1171-1179.	2.4	17
30	Phonon spectroscopy with sub-meV resolution by femtosecond x-ray diffuse scattering. Physical Review B, 2015, 92, .	3.2	34
31	Sequential Single Shot X-ray Photon Correlation Spectroscopy at the SACLA Free Electron Laser. Scientific Reports, 2015, 5, 17193.	3.3	30
32	Focus characterization at an X-ray free-electron laser by coherent scattering and speckle analysis. Journal of Synchrotron Radiation, 2015, 22, 599-605.	2.4	18
33	Demonstration of simultaneous experiments using thin crystal multiplexing at the Linac Coherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 626-633.	2.4	20
34	Photon-in photon-out hard X-ray spectroscopy at the Linac Coherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 612-620.	2.4	35
35	Following the dynamics of matter with femtosecond precision using the X-ray streaking method. Scientific Reports, 2015, 5, 7644.	3.3	24
36	The Linac Coherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 472-476.	2.4	48

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37	The X-ray Correlation Spectroscopy instrument at the Linac Coherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 508-513.	2.4	54
38	The X-ray Pump-Probe instrument at the Linac Coherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 503-507.	2.4	159
39	Field induced anisotropic cooperativity in a magnetic colloidal glass. Soft Matter, 2015, 11, 7165-7170.	2.7	12
40	Experience with the CSPAD during dedicated detector runs at LCLS. Journal of Physics: Conference Series, 2014, 493, 012011.	0.4	15
41	Performance of a beam-multiplexing diamond crystal monochromator at the Linac Coherent Light Source. Review of Scientific Instruments, 2014, 85, 063106.	1.3	55
42	All-diamond optical assemblies for a beam-multiplexing X-ray monochromator at the Linac Coherent Light Source. Journal of Applied Crystallography, 2014, 47, 1329-1336.	4.5	39
43	A time-dependent order parameter for ultrafast photoinduced phase transitions. Nature Materials, 2014, 13, 923-927.	27.5	214
44	Single Shot Coherence Properties of the Free-Electron Laser SACLA in the Hard X-ray Regime. Scientific Reports, 2014, 4, 5234.	3.3	69
45	Intensity interferometry measurements with hard x-ray FEL pulses at the Linac Coherent Light Source. , 2014, , .		3
46	Studies of the ePix100 low-noise x-ray camera at SLAC. , 2014, , .		4
47	Demonstration of Feasibility of X-Ray Free Electron Laser Studies of Dynamics of Nanoparticles in Entangled Polymer Melts. Scientific Reports, 2014, 4, 6017.	3.3	41
48	A detailed view of an ultrafast phase transition using femtosecond resonant x-ray diffraction. , 2014, , .		0
49	The cage elasticity and under-field structure of concentrated magnetic colloids probed by small angle X-ray scattering. Soft Matter, 2013, 9, 11480.	2.7	16
50	CSPAD-140k: A versatile detector for LCLS experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 718, 550-553.	1.6	106
51	Single shot speckle and coherence analysis of the hard X-ray free electron laser LCLS. Optics Express, 2013, 21, 24647.	3.4	37
52	Recent development of thin diamond crystals for X-ray FEL beam-sharing. Proceedings of SPIE, 2013, , .	0.8	8
53	Measurements at synchrotrons and FELs: Some differences observed with the CSPAD. , 2013, , .		1
54	Experimental Measurements of Ultra-Thin Bragg Crystals for LCLS Beam-Sharing Operation. Journal of Physics: Conference Series, 2013, 425, 052002.	0.4	4

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55	Design and operation of a hard x-ray transmissive single-shot spectrometer at LCLS. Journal of Physics: Conference Series, 2013, 425, 052033.	0.4	9
56	Timepix detector at the X-ray Correlation Spectroscopy instrument at LCLS. Journal of Physics: Conference Series, 2013, 425, 062011.	0.4	1
57	The X-ray Correlation Spectroscopy instrument at the Linac Coherent Light Source. Journal of Physics: Conference Series, 2013, 425, 212009.	0.4	13
58	Hard x-ray delay line for x-ray photon correlation spectroscopy and jitter-free pump-probe experiments at LCLS. Proceedings of SPIE, 2012, , .	0.8	16
59	A hard x-ray transmissive single-shot spectrometer for FEL sources. , 2012, , .		5
60	Ultra-thin Bragg crystals for LCLS beam-sharing operation. Proceedings of SPIE, 2012, , .	0.8	4
61	High wavevector temporal speckle correlations at the Linac Coherent Light Source. Optics Express, 2012, 20, 9790.	3.4	24
62	A single-shot transmissive spectrometer for hard x-ray free electron lasers. Applied Physics Letters, 2012, 101, .	3.3	129
63	High Contrast X-ray Speckle from Atomic-Scale Order in Liquids and Glasses. Physical Review Letters, 2012, 109, 185502.	7.8	97
64	Single Shot Spatial and Temporal Coherence Properties of the SLAC Linac Coherent Light Source in the Hard X-Ray Regime. Physical Review Letters, 2012, 108, 024801.	7.8	115
65	Characterization of the eLine ASICs in prototype detector systems for LCLS. , 2012, , .		6
66	Magnetic fluids with tunable interparticle interaction: monitoring the under-field local structure. Magnetohydrodynamics, 2012, 48, 415-426.	0.3	14
67	Development of a hard X-ray delay line for X-ray photon correlation spectroscopy and jitter-free pump-probe experiments at X-ray free-electron laser sources. Journal of Synchrotron Radiation, 2011, 18, 481-491.	2.4	61
68	A single-shot intensity-position monitor for hard x-ray FEL sources. Proceedings of SPIE, 2011, , .	0.8	34
69	Repulsive and attractive ferroglasses: a SAXS and XPCS study. Brazilian Journal of Physics, 2009, 39, 210-216.	1.4	7
70	Revealing the atomic dance. Nature Materials, 2009, 8, 702-703.	27.5	40
71	Dynamics of a colloid-stabilized cream. Physical Review E, 2009, 79, 011405.	2.1	23
72	Performance of a picosecond x-ray delay line unit at 839 keV. Optics Letters, 2009, 34, 1768.	3.3	78

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73	The LCLS X-ray Correlation Spectroscopy Instrument. , 2009, , .		0
74	Dynamics in dense suspensions of charge-stabilized colloidal particles. European Physical Journal E, 2008, 25, 77-81.	1.6	19
75	X-ray-scattering information obtained from near-field speckle. Nature Physics, 2008, 4, 238-243.	16.7	105
76	Heterogeneous dynamics and ageing in a dense ferro-glass. Journal of Physics Condensed Matter, 2008, 20, 204124.	1.8	7
77	Probing heterogeneous dynamics of a repulsive colloidal glass by time resolved x-ray correlation spectroscopy. Journal of Physics Condensed Matter, 2008, 20, 155104.	1.8	16
78	X-Ray Photon Correlation Spectroscopy (XPCS). , 2008, , 953-995.		56
79	Two-Dimensional Dynamics of Metal Nanoparticles on the Surface of Thin Polymer Films Studied with Coherent X Rays. Physical Review Letters, 2007, 98, 047801.	7.8	22
80	Investigation of $q$ -dependent dynamical heterogeneity in a colloidal gel by x-ray photon correlation spectroscopy. Physical Review E, 2007, 76, 051404.	2.1	77
81	The dynamic behavior of magnetic colloids in suspension. Journal of Applied Crystallography, 2007, 40, s250-s253.	4.5	9
82	Measurement of self-diffusion constant with two-dimensional X-ray photon correlation spectroscopy. Journal of Applied Crystallography, 2007, 40, s34-s37.	4.5	8
83	X-ray fluorescence correlation spectroscopy – a tool to study element-specific dynamics. Journal of Applied Crystallography, 2007, 40, s283-s285.	4.5	2
84	Glassy dynamics and aging in a dense ferrofluid. Europhysics Letters, 2006, 75, 764-770.	2.0	63
85	Coherent X-rays as a new probe for the investigation of the dynamics of opaque colloidal suspensions. Journal of Magnetism and Magnetic Materials, 2005, 289, 47-49.	2.3	16
86	Structure and dynamics of complex liquids with magnetic dipole-dipole interactions by means of static and dynamic X-ray scattering. Journal of Magnetism and Magnetic Materials, 2005, 289, 54-57.	2.3	12
87	Determination of Nanocrystal Sizes: A Comparison of TEM, SAXS, and XRD Studies of Highly Monodisperse CoPt <sub>3</sub> Particles. Langmuir, 2005, 21, 1931-1936.	3.5	626
88	Structure and dynamics of electrostatically interacting magnetic nanoparticles in suspension. Journal of Chemical Physics, 2005, 122, 084701.	3.0	20
89	Cobalt ferrite-silica core-shell colloids: a magnetic Yukawa system. Applied Organometallic Chemistry, 2004, 18, 520-522.	3.5	12
90	Influence of functional organic groups on the structure of CTAB templated organosilica thin films. Journal of Materials Chemistry, 2004, 14, 1854-1860.	6.7	34

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91	Micro-transitions or breathers in L-alanine?. European Physical Journal B, 2003, 37, 375-382.	1.5	43
92	Surface ordering in a concentrated suspension of colloidal particles investigated by x-ray scattering methods. Physical Review E, 2001, 64, 061406.	2.1	15
93	Correlation spectroscopy with coherent X-rays: A new probe for the study of slow dynamics. , 1999, , .		1