

# Marius Millot

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

87  
papers

2,031  
citations

23  
h-index

42  
g-index

93  
ext. papers

2,514  
ext. citations

7.8  
avg. IF

4.45  
L-index

#	Paper	IF	Citations
87	Measuring the melting curve of iron at super-Earth core conditions.. <i>Science</i> , <b>2022</b> , 375, 202-205	33.3	10
86	Burning plasma achieved in inertial fusion.. <i>Nature</i> , <b>2022</b> , 601, 542-548	50.4	46
85	Nature of the bonded-to-atomic transition in liquid silica to TPa pressures. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 071101	2.5	1
84	Structure and density of silicon carbide to 1.5 TPa and implications for extrasolar planets.. <i>Nature Communications</i> , <b>2022</b> , 13, 2260	17.4	1
83	First graded metal pushed single shell capsule implosions on the National Ignition Facility. <i>Physics of Plasmas</i> , <b>2022</b> , 29, 052707	2.1	
82	Structural complexity in ramp-compressed sodium to 480 GPa.. <i>Nature Communications</i> , <b>2022</b> , 13, 2534	17.4	3
81	Exploring implosion designs for increased compression on the National Ignition Facility using high density carbon ablaters. <i>Physics of Plasmas</i> , <b>2022</b> , 29, 052710	2.1	3
80	Mechanisms of shape transfer and preheating in indirect-drive double shell collisions. <i>Physics of Plasmas</i> , <b>2022</b> , 29, 062704	2.1	3
79	Hydroscaling indirect-drive implosions on the National Ignition Facility. <i>Physics of Plasmas</i> , <b>2022</b> , 29, 062705	2.1	2
78	Constraining computational modeling of indirect drive double shell capsule implosions using experiments. <i>Physics of Plasmas</i> , <b>2021</b> , 28, 032709	2.1	11
77	Interferometric measurements of refractive index and dispersion at high pressure. <i>Scientific Reports</i> , <b>2021</b> , 11, 5610	4.9	4
76	Fuel convergence sensitivity in indirect drive implosions. <i>Physics of Plasmas</i> , <b>2021</b> , 28, 042705	2.1	4
75	The Principal Hugoniot of Iron-Bearing Olivine to 1465 GPa. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2021GL092471	4.9	1
74	Evidence of hydrogen-helium immiscibility at Jupiter-interior conditions. <i>Nature</i> , <b>2021</b> , 593, 517-521	50.4	12
73	Establishing gold and platinum standards to 1 terapascal using shockless compression. <i>Science</i> , <b>2021</b> , 372, 1063-1068	33.3	18
72	Techniques for studying materials under extreme states of high energy density compression. <i>Physics of Plasmas</i> , <b>2021</b> , 28, 060901	2.1	2
71	Achieving record hot spot energies with large HDC implosions on NIF in HYBRID-E. <i>Physics of Plasmas</i> , <b>2021</b> , 28, 072706	2.1	25

70	Implications of the iron oxide phase transition on the interiors of rocky exoplanets. <i>Nature Geoscience</i> , <b>2021</b> , 14, 121-126	18.3	12
69	Equation-of-state, sound speed, and reshock of shock-compressed fluid carbon dioxide. <i>Physics of Plasmas</i> , <b>2021</b> , 28, 022708	2.1	0
68	A theoretical approach for transient shock strengthening in high-energy-density laser compression experiments. <i>Physics of Plasmas</i> , <b>2021</b> , 28, 082708	2.1	
67	Metastability of Liquid Water Freezing into Ice VII under Dynamic Compression. <i>Physical Review Letters</i> , <b>2021</b> , 127, 135701	7.4	2
66	Symmetric fielding of the largest diamond capsule implosions on the NIF. <i>Physics of Plasmas</i> , <b>2020</b> , 27, 052710	2.1	20
65	Achieving 280 Gbar hot spot pressure in DT-layered CH capsule implosions at the National Ignition Facility. <i>Physics of Plasmas</i> , <b>2020</b> , 27, 042701	2.1	14
64	Probing the Solid Phase of Noble Metal Copper at Terapascal Conditions. <i>Physical Review Letters</i> , <b>2020</b> , 124, 015701	7.4	23
63	Recreating Giants Impacts in the Laboratory: Shock Compression of Bridgmanite to 14 Mbar. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2019GL085476	4.9	12
62	Experiments to explore the influence of pulse shaping at the National Ignition Facility. <i>Physics of Plasmas</i> , <b>2020</b> , 27, 112708	2.1	5
61	Yield and compression trends and reproducibility at NIF*. <i>High Energy Density Physics</i> , <b>2020</b> , 36, 100755	1.2	15
60	Nonideal mixing effects in warm dense matter studied with first-principles computer simulations. <i>Journal of Chemical Physics</i> , <b>2020</b> , 153, 184101	3.9	2
59	Equation of State of CO <sub>2</sub> Shock Compressed to 1 TPa. <i>Physical Review Letters</i> , <b>2020</b> , 125, 165701	7.4	7
58	High-precision shock equation of state measurements for metallic fluid carbon between 15 and 20 Mbar. <i>Physics of Plasmas</i> , <b>2020</b> , 27, 102711	2.1	5
57	Experimental measurement of two copropagating shocks interacting with an unstable interface. <i>Physical Review E</i> , <b>2020</b> , 102, 043212	2.4	4
56	Application of cross-beam energy transfer to control drive symmetry in ICF implosions in low gas fill Hohlraums at the National Ignition Facility. <i>Physics of Plasmas</i> , <b>2020</b> , 27, 102702	2.1	9
55	Principal factors in performance of indirect-drive laser fusion experiments. <i>Physics of Plasmas</i> , <b>2020</b> , 27, 112712	2.1	2
54	Deficiencies in compression and yield in x-ray-driven implosions. <i>Physics of Plasmas</i> , <b>2020</b> , 27, 112705	2.1	8
53	Hotspot parameter scaling with velocity and yield for high-adiabat layered implosions at the National Ignition Facility. <i>Physical Review E</i> , <b>2020</b> , 102, 023210	2.4	12

52	Measurement of the sound speed in dense fluid deuterium along the cryogenic liquid Hugoniot. <i>Physics of Plasmas</i> , <b>2019</b> , 26, 012710	2.1	7
51	Nanosecond X-ray diffraction of shock-compressed superionic water ice. <i>Nature</i> , <b>2019</b> , 569, 251-255	50.4	142
50	Response to Comment on "Insulator-metal transition in dense fluid deuterium". <i>Science</i> , <b>2019</b> , 363,	33.3	4
49	Toward a burning plasma state using diamond ablator inertially confined fusion (ICF) implosions on the National Ignition Facility (NIF). <i>Plasma Physics and Controlled Fusion</i> , <b>2019</b> , 61, 014023	2	40
48	Measurement of Body-Centered Cubic Gold and Melting under Shock Compression. <i>Physical Review Letters</i> , <b>2019</b> , 123, 045701	7.4	41
47	Shock Compression of Liquid Deuterium up to 1TPa. <i>Physical Review Letters</i> , <b>2019</b> , 122, 255702	7.4	15
46	Reply to: Reconsidering X-ray plasmons. <i>Nature Photonics</i> , <b>2019</b> , 13, 751-753	33.9	
45	Optimized x-ray sources for x-ray diffraction measurements at the Omega Laser Facility. <i>Review of Scientific Instruments</i> , <b>2019</b> , 90, 125113	1.7	16
44	Antiproliferative and antibiofilm potentials of endolichenic fungi associated with the lichen <i>Nephroma laevigatum</i> . <i>Journal of Applied Microbiology</i> , <b>2019</b> , 126, 1044-1058	4.7	5
43	A near one-dimensional indirectly driven implosion at convergence ratio 30. <i>Physics of Plasmas</i> , <b>2018</b> , 25, 056311	2.1	13
42	Measuring the shock impedance mismatch between high-density carbon and deuterium at the National Ignition Facility. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	16
41	Experimental evidence for superionic water ice using shock compression. <i>Nature Physics</i> , <b>2018</b> , 14, 297-302	30.2	112
40	The Principal Hugoniot of Forsterite to 950 GPa. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 3865-3872	4.9	21
39	The high velocity, high adiabat, Bigfoot campaign and tests of indirect-drive implosion scaling. <i>Physics of Plasmas</i> , <b>2018</b> , 25, 056308	2.1	68
38	Thermodynamic properties of MgSiO <sub>3</sub> at super-Earth mantle conditions. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	20
37	Implosion shape control of high-velocity, large case-to-capsule ratio beryllium ablaters at the National Ignition Facility. <i>Physics of Plasmas</i> , <b>2018</b> , 25, 072708	2.1	14
36	Absolute Equation-of-State Measurement for Polystyrene from 25 to 60 Mbar Using a Spherically Converging Shock Wave. <i>Physical Review Letters</i> , <b>2018</b> , 121, 025001	7.4	30
35	Insulator-metal transition in dense fluid deuterium. <i>Science</i> , <b>2018</b> , 361, 677-682	33.3	83

34	Fusion Energy Output Greater than the Kinetic Energy of an Imploding Shell at the National Ignition Facility. <i>Physical Review Letters</i> , <b>2018</b> , 120, 245003	7.4	157
33	Energy transfer between lasers in low-gas-fill-density hohlraums. <i>Physical Review E</i> , <b>2018</b> , 98,	2.4	17
32	High-Performance Indirect-Drive Cryogenic Implosions at High Adiabatic on the National Ignition Facility. <i>Physical Review Letters</i> , <b>2018</b> , 121, 135001	7.4	63
31	Beryllium capsule implosions at a case-to-capsule ratio of 3.7 on the National Ignition Facility. <i>Physics of Plasmas</i> , <b>2018</b> , 25, 102704	2.1	18
30	Examining the radiation drive asymmetries present in the high foot series of implosion experiments at the National Ignition Facility. <i>Physics of Plasmas</i> , <b>2017</b> , 24, 056306	2.1	27
29	Symmetry control of an indirectly driven high-density-carbon implosion at high convergence and high velocity. <i>Physics of Plasmas</i> , <b>2017</b> , 24, 056309	2.1	90
28	Shock equation of state of LiH6 to 1.1 TPa. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	8
27	Equation of state, adiabatic sound speed, and Grüneisen coefficient of boron carbide along the principal Hugoniot to 700 GPa. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	20
26	Identifying and discriminating phase transitions along decaying shocks with line imaging Doppler interferometric velocimetry and streaked optical pyrometry. <i>Physics of Plasmas</i> , <b>2016</b> , 23, 014503	2.1	8
25	Absolute calibration of the OMEGA streaked optical pyrometer for temperature measurements of compressed materials. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 114903	1.7	27
24	Planetary science. Shock compression of stishovite and melting of silica at planetary interior conditions. <i>Science</i> , <b>2015</b> , 347, 418-20	33.3	102
23	Ultrabright X-ray laser scattering for dynamic warm dense matter physics. <i>Nature Photonics</i> , <b>2015</b> , 9, 274-279	33.9	173
22	Optical and transport properties of dense liquid silica. <i>Physics of Plasmas</i> , <b>2015</b> , 22, 062706	2.1	19
21	Analysis of laser shock experiments on precompressed samples using a quartz reference and application to warm dense hydrogen and helium. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 195901	2.5	55
20	Red-green luminescence in indium gallium nitride alloys investigated by high pressure optical spectroscopy. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 162103	3.4	13
19	Weak ferrimagnetism and multiple magnetization reversal in $\text{ECr}_3(\text{PO}_4)_2$ . <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	7
18	Comparative Raman spectroscopy of individual and bundled double wall carbon nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , <b>2011</b> , 248, 974-979	1.3	3
17	Determination of effective mass in InN by high-field oscillatory magnetoabsorption spectroscopy. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	33

16	Trigonal field acting at the Cr <sup>3+</sup> E <sub>2</sub> states in ruby from magneto-optical measurements under high pressure. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	6
15	Anharmonic effects in ZnO optical phonons probed by Raman spectroscopy. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 152103	3.4	24
14	Electron cyclotron effective mass in indium nitride. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 052117	3.4	35
13	Electronic structure of indium selenide probed by magnetoabsorption spectroscopy under high pressure. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	25
12	Thermodynamic properties and neutron diffraction studies of silver ferrite AgFeO <sub>2</sub> . <i>Journal of Physics Condensed Matter</i> , <b>2010</b> , 22, 016007	1.8	21
11	Doping dependence of the G-band Raman spectra of an individual multiwall carbon nanotube. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2010</b> , 42, 2466-2470	3	10
10	Pressure dependence of Raman modes in double wall carbon nanotubes filled with 1D Tellurium. <i>Carbon</i> , <b>2010</b> , 48, 2566-2572	10.4	10
9	Evidence of type-I direct recombination in InP/GaP quantum dots via magnetoluminescence. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 151105	3.4	11
8	Photoluminescence of InP/GaP quantum dots under extreme conditions. <i>High Pressure Research</i> , <b>2009</b> , 29, 488-494	1.6	1
7	High pressure and high magnetic field behaviour of free and donor-bound-exciton photoluminescence in InSe. <i>Physica Status Solidi (B): Basic Research</i> , <b>2009</b> , 246, 532-535	1.3	3
6	Er <sup>3+</sup> luminescence as a sensor of high pressure and strong external magnetic fields. <i>High Pressure Research</i> , <b>2009</b> , 29, 748-753	1.6	19
5	New diamond anvil cell for optical and transport measurements under high magnetic fields up to 60 T. <i>High Pressure Research</i> , <b>2008</b> , 28, 627-631	1.6	6
4	Pressure dependence of Raman modes in double wall carbon nanotubes filled with EFe. <i>High Pressure Research</i> , <b>2008</b> , 28, 577-582	1.6	6
3	High-field Zeeman and Paschen-Back effects at high pressure in oriented ruby. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	13
2	Raman spectroscopy and magnetic properties of bulk ZnO:Co single crystal. <i>Journal of Alloys and Compounds</i> , <b>2006</b> , 423, 224-227	5.7	32
1	Design of inertial fusion implosions reaching the burning plasma regime. <i>Nature Physics</i> ,	16.2	21