

# P-A Gourdain

## List of Publications by Year in descending order

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70  
papers

669  
citations

687363

13  
h-index

610901

24  
g-index

70  
all docs

70  
docs citations

70  
times ranked

608  
citing authors

#	ARTICLE	IF	CITATIONS
1	A multichannel, frequency-modulated, tunable Doppler backscattering and reflectometry system. Review of Scientific Instruments, 2009, 80, 083507.	1.3	71
2	Study of gas-puff Z-pinches on COBRA. Physics of Plasmas, 2014, 21, .	1.9	57
3	A Primer on Pulsed Power and Linear Transformer Drivers for High Energy Density Physics Applications. IEEE Transactions on Plasma Science, 2018, 46, 3928-3967.	1.3	57
4	A correlation electron cyclotron emission diagnostic and the importance of multifield fluctuation measurements for testing nonlinear gyrokinetic turbulence simulations. Review of Scientific Instruments, 2008, 79, 103505.	1.3	44
5	Initial experiments using radial foils on the Cornell Beam Research Accelerator pulsed power generator. Physics of Plasmas, 2010, 17, .	1.9	39
6	Origins and effects of mix on magnetized liner inertial fusion target performance. Physics of Plasmas, 2019, 26, .	1.9	37
7	Impact of the Hall Effect on High-Energy-Density Plasma Jets. Physical Review Letters, 2013, 110, 015002.	7.8	26
8	Dynamics of hybrid X-pinches. Plasma Physics Reports, 2015, 41, 52-70.	0.9	26
9	Growth and saturation of the axial instability in low wire number wire array Z pinches. Physics of Plasmas, 2010, 17, .	1.9	24
10	Initial plasma results from the Electric Tokamak*. Nuclear Fusion, 2002, 42, 46-51.	3.5	18
11	Radial electric field required to suppress ion temperature gradient modes in the Electric Tokamak. Physics of Plasmas, 1999, 6, 4722-4727.	1.9	16
12	Initial magnetic field compression studies using gas-puff Z-pinches and thin liners on COBRA. Nuclear Fusion, 2013, 53, 083006.	3.5	16
13	High-resolution magnetohydrodynamic equilibrium code for unity beta plasmas. Journal of Computational Physics, 2006, 216, 275-299.	3.8	14
14	The impact of Hall physics on magnetized high energy density plasma jets. Physics of Plasmas, 2014, 21, .	1.9	14
15	Axial magnetic field injection in magnetized liner inertial fusion. Physics of Plasmas, 2017, 24, .	1.9	14
16	High energy density plasmas generated by radial foil explosions. Plasma Physics and Controlled Fusion, 2010, 52, 055015.	2.1	13
17	Gas puff Z-pinch implosions with external Bz field on COBRA. AIP Conference Proceedings, 2014, . .	0.4	11
18	Design of 30-T pulsed magnetic field generator for magnetized high-energy-density plasma experiments. Physical Review Accelerators and Beams, 2019, 22, .	1.6	11

#	ARTICLE	IF	CITATIONS
19	Contour dynamics method for solving the Grad-Shafranov equation with applications to high beta equilibria. Physics of Plasmas, 2004, 11, 4372-4381.	1.9	10
20	Modeling of strongly collimated jets produced by high energy density plasmas on COBRA. Plasma Physics and Controlled Fusion, 2014, 56, 035002.	2.1	10
21	Investigation of radiative bow-shocks in magnetically accelerated plasma flows. Physics of Plasmas, 2015, 22, 052710.	1.9	10
22	The Impact of Cathode Diameter on Radial Foil Explosions. IEEE Transactions on Plasma Science, 2010, 38, 3363-3369.	1.3	9
23	The Generation of Warm Dense Matter Samples Using Fast Magnetic Compression. IEEE Transactions on Plasma Science, 2015, 43, 2547-2552.	1.3	9
24	Magnetohydrodynamic instabilities in radial foil configurations. Physics of Plasmas, 2012, 19, 022701.	1.9	8
25	Enhanced keV peak power and yield using twisted pair cables in a z-pinch. Applied Physics Letters, 2012, 100, .	3.3	8
26	Particle pinch mitigated by radial currents in the electric tokamak. Nuclear Fusion, 2005, 45, 1634-1641.	3.5	7
27	Stability of Highly Shifted Equilibria in a Large-Aspect-Ratio Tokamak. Physical Review Letters, 2006, 97, 055003.	7.8	6
28	Stability of highly shifted equilibria in a large aspect ratio low-field tokamak. Physics of Plasmas, 2007, 14, 112513.	1.9	6
29	Hollow current profile scenarios for advanced tokamak reactor operations. Physics of Plasmas, 2009, 16, 112506.	1.9	6
30	Enhancing cylindrical compression by reducing plasma ablation in pulsed-power drivers. Physics of Plasmas, 2019, 26, 042706.	1.9	6
31	Current adding transmission lines for compact MA-class linear transformer drivers. Physical Review Accelerators and Beams, 2020, 23, .	1.6	6
32	Conceptual design of a 960-TW accelerator powered by impedance-matched Marx generators. , 2017, , .		5
33	The Generation of Warm Dense Matter Using a Magnetic Anvil Cell. IEEE Transactions on Plasma Science, 2018, 46, 3968-3972.	1.3	5
34	Application of reflectometry power flow for magnetic field pitch angle measurements in tokamak plasmas (invited). Review of Scientific Instruments, 2008, 79, 10F102.	1.3	4
35	The convergence of analytic high- $\beta^2$ equilibrium in a finite aspect ratio tokamak. Physics of Plasmas, 2008, 15, 122504.	1.9	4
36	Quasimonochromatic x-ray backlighting on the Cornell Beam Research Accelerator (COBRA) pulsed power generator. Review of Scientific Instruments, 2010, 81, 10E501.	1.3	4

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37	Reduction of ablated surface expansion in pulsed-power-driven experiments using an aerosol dielectric coating. Physics of Plasmas, 2019, 26, 070704.	1.9	4
38	Characterization of an imploding cylindrical plasma for electron transport studies using x-ray emission spectroscopy. Physics of Plasmas, 2020, 27, .	1.9	4
39	Assessment of microwave power flow for reflectometry measurements in tokamak plasmas. Plasma Physics and Controlled Fusion, 2008, 50, 025004.	2.1	4
40	Magnetized hybrid X-pinch. , 2014, , .		3
41	\$\$\$-Pinch Radiography of Exploding "Cables". IEEE Transactions on Plasma Science, 2011, 39, 2404-2405.	1.3	3
42	Dual equilibrium in a finite aspect ratio tokamak. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6097-6100.	2.1	2
43	Cable Array \$\$\$-Pinch Experiments at 1 MA. IEEE Transactions on Plasma Science, 2012, 40, 3367-3371.	1.3	2
44	The impact of three dimensional MHD instabilities on the generation of warm dense matter using a MA-class linear transformer driver. High Energy Density Physics, 2017, 24, 50-55.	1.5	2
45	The generation of mega-gauss fields on the Cornell beam research accelerator. Review of Scientific Instruments, 2018, 89, 095102.	1.3	2
46	Scaling pulser output parameters for standard and dry brick configurations. Physical Review Accelerators and Beams, 2020, 23, .	1.6	2
47	Fast electron transport dynamics and energy deposition in magnetized, imploded cylindrical plasma. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200052.	3.4	2
48	Mitigation and control of the particle pinch in the Electric Tokamak. Physics of Plasmas, 2006, 13, 072502.	1.9	1
49	The magnetohydrodynamics of high energy density plasmas produced by radial foil configurations. , 2009, , .		1
50	Measuring magnetic fields stronger than 100 teslas using miniature b-dot probes on COBRA. , 2014, , .		1
51	Plasma jets subject to adjustable current polarities and external magnetic fields. , 2014, , .		1
52	Low-Inductance Load Test of a New 250-Ka, 150-Ns Pulser for Fast X-Pinch Sources. , 2019, , .		1
53	Design of a 3-D Printed Experimental Platform for Studying the Formation and Magnetization of Turbulent Plasma Jets. IEEE Transactions on Plasma Science, 2020, 48, 4056-4067.	1.3	1
54	Coreless Fast Pulsed-Power Drivers. IEEE Transactions on Plasma Science, 2021, 49, 2161-2165.	1.3	1

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55	Using extended MHD to explore lasers as a trigger for x-pinch. Physics of Plasmas, 2021, 28, 102703.	1.9	1
56	ICRF performance in ET. AIP Conference Proceedings, 2001, , .	0.4	0
57	Validation of a molecular hydrogen penetration model in the electric tokamak. Plasma Physics and Controlled Fusion, 2006, 48, 955-967.	2.1	0
58	Intermittent turbulence and turbulent structures in LAPD and ET. AIP Conference Proceedings, 2006, , .	0.4	0
59	Microscopic gas puff design for Rayleigh Taylor instability mitigation. , 2009, , .		0
60	ISSUES OF PARTICLE TRANSPORT AND CURRENT PROFILE CONTROL IN BURNING TOKAMAKS. , 2009, , .		0
61	Magnetic field topology variations in plasmas generated by radial foils. , 2012, , .		0
62	The dynamics of strongly magnetized plasma jets on COBRA. , 2014, , .		0
63	Early time studies of cylindrical liner implosions on COBRA. , 2014, , .		0
64	Stabilization of gas puff Z-pinch implosions by using external Bz field on COBRA. , 2014, , .		0
65	Generating magnetic fields stronger than 100 teslas using solenoids on COBRA. , 2014, , .		0
66	The generation of warm dense matter using fast magnetic compression at 10 MA. , 2015, , .		0
67	High field assisted X-ray source. , 2016, , .		0
68	A physics-based solver to optimize the illumination of cylindrical targets in spherically distributed high power laser systems. Review of Scientific Instruments, 2017, 88, 053503.	1.3	0
69	Axial magnetic field injection on scaled-down maglif platforms. , 2017, , .		0
70	Erratum to "Design of a 3-D Printed Experimental Platform for Studying the Formation and Magnetization of Turbulent Plasma Jets" [Nov 20 4056-4067]. IEEE Transactions on Plasma Science, 2021, 49, 1259-1259.	1.3	0