

# P-A Gourdain

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

669  
citations

687363

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610901

24  
g-index

70  
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70  
docs citations

70  
times ranked

608  
citing authors

| #  | ARTICLE                                                                                                                                                                                                        | IF  | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 1  | 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         |
| 2  | Coreless Fast Pulsed-Power Drivers. IEEE Transactions on Plasma Science, 2021, 49, 2161-2165.                                                                                                                  | 1.3 | 1         |
| 3  | Using extended MHD to explore lasers as a trigger for x-pinchs. Physics of Plasmas, 2021, 28, 102703.                                                                                                          | 1.9 | 1         |
| 4  | 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         |
| 5  | 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         |
| 6  | Characterization of an imploding cylindrical plasma for electron transport studies using x-ray emission spectroscopy. Physics of Plasmas, 2020, 27, .                                                          | 1.9 | 4         |
| 7  | Current adding transmission lines for compact MA-class linear transformer drivers. Physical Review Accelerators and Beams, 2020, 23, .                                                                         | 1.6 | 6         |
| 8  | Scaling pulser output parameters for standard and dry brick configurations. Physical Review Accelerators and Beams, 2020, 23, .                                                                                | 1.6 | 2         |
| 9  | Reduction of ablated surface expansion in pulsed-power-driven experiments using an aerosol dielectric coating. Physics of Plasmas, 2019, 26, 070704.                                                           | 1.9 | 4         |
| 10 | Enhancing cylindrical compression by reducing plasma ablation in pulsed-power drivers. Physics of Plasmas, 2019, 26, 042706.                                                                                   | 1.9 | 6         |
| 11 | Low-Inductance Load Test of a New 250-Ka, 150-Ns Pulser for Fast X-Pinch Sources. , 2019, , .                                                                                                                  |     | 1         |
| 12 | Origins and effects of mix on magnetized liner inertial fusion target performance. Physics of Plasmas, 2019, 26, .                                                                                             | 1.9 | 37        |
| 13 | 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        |
| 14 | 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        |
| 15 | The Generation of Warm Dense Matter Using a Magnetic Anvil Cell. IEEE Transactions on Plasma Science, 2018, 46, 3968-3972.                                                                                     | 1.3 | 5         |
| 16 | The generation of mega-gauss fields on the Cornell beam research accelerator. Review of Scientific Instruments, 2018, 89, 095102.                                                                              | 1.3 | 2         |
| 17 | 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         |
| 18 | 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         |

| #  | ARTICLE                                                                                                                                                | IF  | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Axial magnetic field injection in magnetized liner inertial fusion. <i>Physics of Plasmas</i> , 2017, 24, .                                            | 1.9 | 14        |
| 20 | Axial magnetic field injection on scaled-down maglif platforms. , 2017, , .                                                                            |     | 0         |
| 21 | Conceptual design of a 960-TW accelerator powered by impedance-matched Marx generators. , 2017, , .                                                    |     | 5         |
| 22 | High field assisted X-ray source. , 2016, , .                                                                                                          |     | 0         |
| 23 | The generation of warm dense matter using fast magnetic compression at 10 MA. , 2015, , .                                                              |     | 0         |
| 24 | Dynamics of hybrid X-pinchs. <i>Plasma Physics Reports</i> , 2015, 41, 52-70.                                                                          | 0.9 | 26        |
| 25 | Investigation of radiative bow-shocks in magnetically accelerated plasma flows. <i>Physics of Plasmas</i> , 2015, 22, 052710.                          | 1.9 | 10        |
| 26 | The Generation of Warm Dense Matter Samples Using Fast Magnetic Compression. <i>IEEE Transactions on Plasma Science</i> , 2015, 43, 2547-2552.         | 1.3 | 9         |
| 27 | Modeling of strongly collimated jets produced by high energy density plasmas on COBRA. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 035002. | 2.1 | 10        |
| 28 | The impact of Hall physics on magnetized high energy density plasma jets. <i>Physics of Plasmas</i> , 2014, 21, .                                      | 1.9 | 14        |
| 29 | Study of gas-puff Z-pinchs on COBRA. <i>Physics of Plasmas</i> , 2014, 21, .                                                                           | 1.9 | 57        |
| 30 | The dynamics of strongly magnetized plasma jets on COBRA. , 2014, , .                                                                                  |     | 0         |
| 31 | Early time studies of cylindrical liner implosions on COBRA. , 2014, , .                                                                               |     | 0         |
| 32 | Measuring magnetic fields stronger than 100 teslas using miniature b-dot probes on COBRA. , 2014, , .                                                  |     | 1         |
| 33 | Stabilization of gas puff Z-pinch implosions by using external Bz field on COBRA. , 2014, , .                                                          |     | 0         |
| 34 | Gas puff Z-pinch implosions with external Bz field on COBRA. <i>AIP Conference Proceedings</i> , 2014, , .                                             | 0.4 | 11        |
| 35 | Plasma jets subject to adjustable current polarities and external magnetic fields. , 2014, , .                                                         |     | 1         |
| 36 | Magnetized hybrid X-pinch. , 2014, , .                                                                                                                 |     | 3         |

| #  | ARTICLE                                                                                                                                                            | IF  | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Generating magnetic fields stronger than 100 teslas using solenoids on COBRA. , 2014, , .                                                                          |     | 0         |
| 38 | Impact of the Hall Effect on High-Energy-Density Plasma Jets. Physical Review Letters, 2013, 110, 015002.                                                          | 7.8 | 26        |
| 39 | Initial magnetic field compression studies using gas-puff Z-pinchs and thin liners on COBRA. Nuclear Fusion, 2013, 53, 083006.                                     | 3.5 | 16        |
| 40 | Magnetohydrodynamic instabilities in radial foil configurations. Physics of Plasmas, 2012, 19, 022701.                                                             | 1.9 | 8         |
| 41 | Magnetic field topology variations in plasmas generated by radial foils. , 2012, , .                                                                               |     | 0         |
| 42 | Enhanced keV peak power and yield using twisted pair cables in a z-pinch. Applied Physics Letters, 2012, 100, .                                                    | 3.3 | 8         |
| 43 | Cable Array Z-Pinch Experiments at 1 MA. IEEE Transactions on Plasma Science, 2012, 40, 3367-3371.                                                                 | 1.3 | 2         |
| 44 | Z-Pinch Radiography of Exploding Cables. IEEE Transactions on Plasma Science, 2011, 39, 2404-2405.                                                                 | 1.3 | 3         |
| 45 | Growth and saturation of the axial instability in low wire number wire array Z pinchs. Physics of Plasmas, 2010, 17, .                                             | 1.9 | 24        |
| 46 | Quasimonochromatic x-ray backlighting on the Cornell Beam Research Accelerator (COBRA) pulsed power generator. Review of Scientific Instruments, 2010, 81, 10E501. | 1.3 | 4         |
| 47 | High energy density plasmas generated by radial foil explosions. Plasma Physics and Controlled Fusion, 2010, 52, 055015.                                           | 2.1 | 13        |
| 48 | The Impact of Cathode Diameter on Radial Foil Explosions. IEEE Transactions on Plasma Science, 2010, 38, 3363-3369.                                                | 1.3 | 9         |
| 49 | Initial experiments using radial foils on the Cornell Beam Research Accelerator pulsed power generator. Physics of Plasmas, 2010, 17, .                            | 1.9 | 39        |
| 50 | A multichannel, frequency-modulated, tunable Doppler backscattering and reflectometry system. Review of Scientific Instruments, 2009, 80, 083507.                  | 1.3 | 71        |
| 51 | Microscopic gas puff design for Rayleigh Taylor instability mitigation. , 2009, , .                                                                                |     | 0         |
| 52 | Hollow current profile scenarios for advanced tokamak reactor operations. Physics of Plasmas, 2009, 16, 112506.                                                    | 1.9 | 6         |
| 53 | The magnetohydrodynamics of high energy density plasmas produced by radial foil configurations. , 2009, , .                                                        |     | 1         |
| 54 | ISSUES OF PARTICLE TRANSPORT AND CURRENT PROFILE CONTROL IN BURNING TOKAMAKS. , 2009, , .                                                                          |     | 0         |

| #  | ARTICLE                                                                                                                                                                                                                      | IF  | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | 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         |
| 56 | 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         |
| 57 | 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        |
| 58 | The convergence of analytic high- $\hat{I}^2$ equilibrium in a finite aspect ratio tokamak. Physics of Plasmas, 2008, 15, 122504.                                                                                            | 1.9 | 4         |
| 59 | Assessment of microwave power flow for reflectometry measurements in tokamak plasmas. Plasma Physics and Controlled Fusion, 2008, 50, 025004.                                                                                | 2.1 | 4         |
| 60 | Stability of highly shifted equilibria in a large aspect ratio low-field tokamak. Physics of Plasmas, 2007, 14, 112513.                                                                                                      | 1.9 | 6         |
| 61 | High-resolution magnetohydrodynamic equilibrium code for unity beta plasmas. Journal of Computational Physics, 2006, 216, 275-299.                                                                                           | 3.8 | 14        |
| 62 | Validation of a molecular hydrogen penetration model in the electric tokamak. Plasma Physics and Controlled Fusion, 2006, 48, 955-967.                                                                                       | 2.1 | 0         |
| 63 | Intermittent turbulence and turbulent structures in LAPD and ET. AIP Conference Proceedings, 2006, , .                                                                                                                       | 0.4 | 0         |
| 64 | Stability of Highly Shifted Equilibria in a Large-Aspect-Ratio Tokamak. Physical Review Letters, 2006, 97, 055003.                                                                                                           | 7.8 | 6         |
| 65 | Mitigation and control of the particle pinch in the Electric Tokamak. Physics of Plasmas, 2006, 13, 072502.                                                                                                                  | 1.9 | 1         |
| 66 | Particle pinch mitigated by radial currents in the electric tokamak. Nuclear Fusion, 2005, 45, 1634-1641.                                                                                                                    | 3.5 | 7         |
| 67 | 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        |
| 68 | Initial plasma results from the Electric Tokamak*. Nuclear Fusion, 2002, 42, 46-51.                                                                                                                                          | 3.5 | 18        |
| 69 | ICRF performance in ET. AIP Conference Proceedings, 2001, , .                                                                                                                                                                | 0.4 | 0         |
| 70 | Radial electric field required to suppress ion temperature gradient modes in the Electric Tokamak. Physics of Plasmas, 1999, 6, 4722-4727.                                                                                   | 1.9 | 16        |