



Dr. G. Sarri
Lecturer of Plasma Physics
School of Mathematics
and Physics
The Queen's University
Of Belfast
Phone:
+44-028-90973575
<http://www.gianlucasarri.com>
E-mail:cg.sarri@qub.ac.uk

List of Publications

SELECTED PEER-REVIEWED PUBLICATIONS:

1. *Experimental signatures of the quantum nature of radiation reaction in the field of an ultraintense laser*
K. Poder et al., Physical Review X 8, 031004 (2018)
2. *High resolution μ CT of a mouse embryo using a compact laser-driven x-ray betatron source*
J. Cole et al., PNAS 115, 6335 (2018)
3. *Experimental evidence of radiation reaction in the collision of a high-intensity laser pulse with a laser-wakefield accelerated electron beam*
J. Cole et al., Physical Review X 8, 011020 (2018)
4. *Experimental observation of a current-driven instability in a neutral electron-positron beam*
J. Warwick et al., Phys. Rev. Lett. 119, 185002 (2017)
5. *Experimental observation of thin-shell instability in a collision-less plasma*
A. Hamad et al., Astrophysical Journal Letters 834, L21 (2017)
6. *Generation of neutral and high-density electron-positron pair plasmas in the laboratory*
G. Sarri et al., Nat. Commun. 6, 6747 (2015).
7. *Particle-In-Cell simulation study of the interaction between a relativistically moving leptonic micro-cloud and ambient electrons*
M. E. Dieckmann et al., Astronomy and Astrophysics 577, A137 (2015).
8. *Ultrahigh brilliance multi-MeV gamma-ray beams from nonlinear relativistic Thomson scattering*
G. Sarri et al., Phys. Rev. Lett. 113, 224801 (2014).
9. *A table-top laser-based source of femtosecond, collimated, ultra-relativistic positron beams*
G. Sarri et al., Phys. Rev. Lett. 110, 255002 (2013). SYNOPSIS FOR PRL 2013
10. *Time-resolved characterization of the formation of a collisionless shock*
H. Amhad et al., Phys. Rev. Lett. 110, 205001 (2013).
11. *Dynamics of self-generated, large amplitude magnetic fields following high-intensity laser matter interaction*
G. Sarri et al., Phys. Rev. Lett. 109, 205002 (2012).
12. *Ion acceleration in multispecies targets driven by intense laser radiation pressure*
S. Kar et al., Phys. Rev. Lett. 109, 185006 (2012).
13. *Weibel-induced filamentation during ultrafast, laser-driven plasma expansion*
K. Quinn et al., Phys. Rev. Lett. 108, 135001 (2012).
14. *PIC simulations of thermal anisotropy-driven Weibel instability in a circular rarefaction wave*
M. Dieckmann et al., New J. Phys. 14, 023007 (2012) RESEARCH HIGHLIGHT FOR NJP 2012
15. *Generation of a purely electrostatic collisionless shock during the expansion of a dense plasma through a rarefied medium*
G. Sarri et al., Phys. Rev. Lett. 107, 025003 (2011).

16. *Spatially resolved measurements of laser filamentation in long scale length underdense plasmas with and without beam smoothing*
G. Sarri et al., Phys. Rev. Lett. 106, 095001 (2011).
17. *Observation of postsoliton expansion following laser propagation through an underdense plasma*
G. Sarri et al., Phys. Rev. Lett 105, 175007 (2010).
18. *Hot electrons transverse refluxing in ultraintense laser-solid interactions*
S. Buffechoux et al., Phys. Rev. Lett. 105, 015005 (2010).
19. *Laser-driven ultrafast field propagation on solid surfaces*
K. Quinn et al., Phys. Rev. Lett. 102, 194801 (2009). EDITOR SUGGESTION FOR PRL 2009
20. *Intense gamma-ray source in the giant-dipole-resonance range driven by 10-TW laser pulses*
A. Giulietti et al., Phys. Rev. Lett. 101, 105002 (2008).

OTHER PEER-REVIEWED PUBLICATIONS:

21. New Journal Physics 20, 073008 (2018).
22. Phys. Plasmas 25, 062122 (2018)
23. J. Plasma Phys. <https://doi.org/10.1017/S0022377818000314> (2018)
24. Phys. Rev. E 97, 063203 (2018)
25. Phys. Plasmas 25, 064502 (2018)
26. Phys. Plasmas 25, 052108 (2018)
- 27 J. Mod. Opt. 65, 1362 (2018)
28. Journal of Optics 20, 035002 (2018).
29. Nuclear instruments and methods A <https://doi.org/10.1016/j.nima.2018.02.054> (2018)
30. Plasma Phys. Contr. F. 60, 014014 (2018).
31. Plasma Phys. Contr. F. 60, 014022 (2018).
32. Phys. Plasmas 24, 103123 (2017).
33. Phys. Plasmas 24, 094501 (2017).
34. J. Mod. Opt. DOI: 10.1080/09500340.2017.1353655 (2017).
35. Chin. Phys. B 26, 025201 (2017).
36. Plasma Phys. Contr. F. 59, 014015 (2017).
37. Phys. Plasmas 23, 123113 (2016).
38. Nucl. Instrum. Meth. A 829, 291 (2016).
39. Appl. Opt. 55, 9341 (2016).
40. Romanian Reports in Physics 68, S145 (2016).
41. Phys. Plasmas 23, 063121 (2016).
42. Phys. Plasmas 23, 062111 (2016).
43. J. Korean Phys. Soc. 68, 768 (2016).
44. Opt. Expr. 24, 5212 (2016).
45. Opt. Expr. 24, 3127 (2016).
46. Applied Surface Science 367, 80 (2016).
47. Rev. Sci. Instr. 86, 123302 (2015).
48. Phys. Rev. E 92, 031101 (2015).
49. J. Plasma Phys. 81, 455810401 (2015).
50. Phys. Rev. E 91, 033107 (2015).
51. Phys. Plasmas 22, 072104 (2015).
52. J. Plasma Phys. 81, 415810202 (2015).
53. High power laser sci. and eng. 2, e33 (2014)
54. Rev. Sci. Instrum. 85 , 065119 (2014)
55. New J. Physics 16 073001 (2014)
56. Phys. Plasmas 21, 056704 (2014)
57. Nucl. Instrum. Meth. A 740, 138 (2014)
58. Phys. Plasmas 20, 102112 (2013)
59. Plasma Phys. Contr. F. 55, 124017 (2013)
60. Plasma Phys. Contr. F. 55, 124030 (2013)
61. Phys. Plasmas 20, 042111 (2013)
62. Phys. Plasmas 19, 122102 (2012)
63. Phys. Plasmas 19, 113110 (2012)
64. Plasma Phys. Contr. F. 54, 085015 (2012)

65. Phys. Plasmas 19, 073111 (2012)
66. Phys. Plasmas 19, 012310 (2012)
67. Plasma Phys. Contr. F. 53, 124012 (2011)
68. App. Phys. Lett. 99, 051501 (2011)
69. Phys. Plasmas 18, 080704 (2011)
70. New Jour. Phys. 13, 073023 (2011)
71. Phys. Plasmas 17, 113303 (2010)
72. Radiat. Eff. Defect. Solids 165, 774 (2010)
73. Laser Part. Beams 28, 451 (2010)
74. Phys. Plasmas 17, 082305 (2010)
75. New Jour. Phys. 12, 063018 (2010)
76. Laser Part. Beams 28, 277 (2010)
77. New Jour. Phys. 12, 045006 (2010)
78. Plasma Phys. Contr. F. 52, 2 (2010)
79. Phys. Plasmas 17, 010701 (2010)
80. Rev. Sci. Instrum. 80, 113506 (2009)
81. Eur. Phys. J. D 55, 293 (2009)
82. Eur. Phys. J. D 55, 299 (2009)
83. Rev. Sci. Instrum. 80, 103302 (2009)
84. IEEE Transactions on Plasma Science 6, 1 (2007)