

# List of publications

Luca Giuzzi

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## 1 ACCEPTED PAPERS

1. L. Giuzzi, “Collineation groups of the intersection of two classical unitals”, *J. Comb. Des.* 9: 445–459 (2001) ISSN: 1063-8539, doi:10.1002/jcd.1023.
2. L. Giuzzi, H. Karzel, “Co-Minkowski spaces, their reflection structure and K-loops”, *Discrete Math.* 255: 161–179 (2002), ISSN: 0012-365X, doi:10.1016/S0012-365X(01)00396-X.
3. L. Giuzzi, “A characterisation of classical unitals”, *J. Geom.*, 74: 86–89 (2002), ISSN: 0047-2468, doi:10.1007/PL00012541.
4. L. Giuzzi, G. Korchmáros, “Ovoids of the Hermitian Surface in Odd Characteristic”, *Adv. Geom., Special Issue* (2003), S49–S58, ISSN: 1615-715X.
5. L. Giuzzi, “On the intersection of Hermitian surfaces”, *J. Geom.*, 85: 49–60 (2006), ISSN: 0047-2468, doi:10.1007/s00022-006-0042-4.
6. L. Giuzzi, “A geometric construction for some ovoids of the Hermitian Surface”, *Results Math.* 49: 81–88 (2006), ISSN: 1422-6383, doi:10.1007/s00025-006-0210-8.
7. A. Aguglia, L. Giuzzi, “Orthogonal arrays from Hermitian varieties”, *Innov. Incidence Geom.* 5: 129–144 (2007), ISSN: 1781-6475 (arxiv:0705.3590).
8. A. Aguglia, L. Giuzzi, “Construction of a 3–dimensional MDS code”, *Contrib. Discrete Math.* 3 (1), 39–46 (2007), ISSN: 1715-0868, doi:10.1007/s00025-007-0268-y (arxiv:0708.1558).
9. A. Aguglia, L. Giuzzi, “An algorithm for constructing some maximal arcs in  $PG(2, q^2)$ ”, *Results Math.* 52 no. 1–2: 17–33 (2008), ISSN: 1422-6383, doi:10.1007/s00025-007-0268-y (arxiv:math/0611466).
10. A. Aguglia, L. Giuzzi, G. Korchmáros, “Algebraic curves and maximal arcs”, *J. Algebraic Combin.* 28: 531–544 (2008), ISSN: 0925-9899, doi:10.1007/s10801-008-0122-7 (arxiv:math/0702770).
11. A. Aguglia, L. Giuzzi, “On the non–existence of certain hyperovals in dual André planes of order  $2^{2k}$ ”, *Electron. J. Combin.* 15(1): N37 (2008); (arxiv:0803.1597).
12. L. Giuzzi, A. Sonnino, “LDPC codes from Singer cycles”, *Discrete Appl. Math.* 157: 1723–1728 (2009), ISSN: 0166-218X, doi:10.1016/j.dam.2009.01.013 (arxiv:0709.2813).
13. A. Aguglia, L. Giuzzi, G. Korchmáros, “Construction of unitals in Desarguesian planes”, *Discrete Math.* 310 (22): 3162–3167 (2010), ISSN: 0012-365X, doi:10.1016/j.disc.2009.06.023 (arxiv:0810.2233).

14. L. Giuzzi, A. Pasotti, “Sampling complete graphs”, *Discrete Math.* 312 (3), 488–497 (2012), ISSN: 0012-365X, doi:10.1016/j.disc.2011.02.034 (arxiv:0907.3199).
15. L. Giuzzi, G. Korchmáros, “Unitals in  $PG(2, q^2)$  with a large 2-point stabiliser”, *Discrete Math.* 312 (3): 532–535 (2012), ISSN: 0012-365X doi:10.1016/j.disc.2011.03.017 (arxiv:1009.6109).
16. A. Benini, L. Giuzzi, A. Pasotti, “Down-linking  $(K_v, \Gamma)$ -designs to  $P_3$ -designs”, *Util. Math.* 90: 3–21 (2013) ISSN: 0315-3681 (arxiv:1004.4127).
17. A. Benini, L. Giuzzi, A. Pasotti, “New results on path-decompositions and their down-links”, *Util. Math.* 90: 369–382 (2013) ISSN: 0315-3681 (arxiv:1106.1095).
18. L. Giuzzi, V. Pepe, “Families of twisted tensor product codes”, *Des. Codes Cryptogr.* 67: 375–384 (2013) ISSN: 0925-1022 doi:10.1007/s10623-012-9613-6 (arxiv:1107.1066).
19. I. Cardinali, L. Giuzzi, “Codes and caps from orthogonal Grassmannians”, *Finite Fields Appl.* 24: 148–169 (2013) ISSN: 1071-5797 doi:10.1016/j.ffa.2013.07.003 (arxiv:1303.5636).
20. A. Aguglia, L. Giuzzi, “Intersections of the Hermitian surface with irreducible quadrics in  $PG(3, q^2)$ ,  $q$  odd”, *Finite Fields Appl.* 30: 1–13 (2014) ISSN: 1071-5797 doi:10.1016/j.ffa.2014.05.005 (arxiv:1307.8386).
21. L. Giuzzi, V. Pepe, “On some subvarieties of the Grassmann variety”, *Linear Multilinear Algebra* 63 (11): 2121–2134 (2015) ISSN: 0308-1087 doi:10.1080/03081087.2014.983449 (arxiv:1405.6926).
22. I. Cardinali, L. Giuzzi, “Minimum distance of Symplectic Grassmann Codes”, *Linear Algebra Appl.* 488: 124–134 (2016) ISSN: 0024-3795 doi:10.1016/j.laa.2015.09.031 (arxiv:1503.05456).
23. I. Cardinali, L. Giuzzi, K.V. Kaipa, A. Pasini, “Line Polar Grassmann Codes of Orthogonal Type”, *J. Pure Appl. Algebra* 220 (5): 1924–1934 (2016) ISSN: 0022-4049 doi:10.1016/j.jpaa.2015.10.007.
24. A. Aguglia, L. Giuzzi, “Intersections of the Hermitian Surface with irreducible Quadrics in even Characteristic”, *Electron. J. Combin.* 23 (4): P4.13 (2016) (arxiv:1407.8498).
25. A. Aguglia, L. Giuzzi, “Intersection sets, three-character multisets and associated codes”, *Des. Codes Cryptogr.* 83: 269–282 (2017) doi:10.1007/s10623-016-0302-8 (arxiv:1504.00503).
26. I. Cardinali, L. Giuzzi, A. Pasini, “A geometric approach to alternating  $k$ -linear forms”, *to appear on J. Algebraic Combin.* doi:10.1007/s10801-016-0730-6 (arxiv:1601.08115).
27. I. Cardinali, L. Giuzzi, “Enumerative Coding for Line Polar Grassmannians with Applications to Codes”, *Finite Fields Appl.* 46, 107–138 (2017) doi:10.1016/j.ffa.2017.03.005 (arxiv:1412.5466).

## 2 PREPRINTS

1. J.W.P. Hirschfeld, “Algebraic Geometry over a Field of Positive Characteristic - Appunti curati dal dott. L. Giuzzi”, *Quaderno del seminario matematico di Brescia* n. 16/98.
2. L. Giuzzi, “Size of Hermitian intersections”, *Quaderno del seminario matematico di Brescia* n. 07/2001.
3. L. Giuzzi, “Intersections of Hermitian surfaces/1: configurations”, *Quaderno del seminario matematico di Brescia* n. 11/2001.
4. L. Giuzzi, “Intersections of Hermitian surfaces/2: matrices”, *Quaderno del seminario matematico di Brescia* n. 14/2001.

5. L. Giuzzi, “Looking for ovoids of the Hermitian surface: a computational approach”, *Quaderno del seminario matematico di Brescia* n. 33/2002, (arxiv:1210.2600).
6. L. Giuzzi, “A family of ovoids of the Hermitian Surface in  $PG(3, q^2)$  with  $q \geq 5$  odd”, *Quaderno del seminario matematico di Brescia* n. 09/2003.
7. L. Giuzzi, A. Sonnino, “Alcune note introduttive sulla crittografia”, *Quaderno del seminario matematico di Brescia* n. 01/2006.
8. I. Cardinali, L. Giuzzi, A. Pasini, “Line Polar Grassmann Codes of Orthogonal Type”, (arxiv:1407.6149)
9. I. Cardinali, L. Giuzzi, “Minimum distance of Line Orthogonal Grassmann Codes in even characteristic”, (arxiv:1605.09333).
10. I. Cardinali, L. Giuzzi, A. Pasini, “On transparent embeddings of point-line geometries”, (arxiv:1611.07877).
11. I. Cardinali, L. Giuzzi, “Geometries arising from trilinear forms on low-dimensional vector spaces”, (arxiv:1703.06821).

### 3 BOOKS

1. L. Giuzzi, “Hermitian varieties over finite fields”, DPhil thesis under the supervision of Prof. J.W.P. Hirschfeld (University of Sussex).
2. L. Giuzzi, “Codici correttori”, UNITEXT Springer Verlag 27 (2006), ISBN: 88-470-0539-6.

### 4 PROCEEDINGS/EXTENDED ABSTRACTS

1. I. Cardinali, L. Giuzzi, “Some results on caps and codes related to orthogonal Grassmannians – a preview”, *Electron. Notes Discrete Math.* 40, 139–144 (2013) ISSN: 1571-0653, doi:10.1016/j.endm.2013.05.026.
2. I. Cardinali, L. Giuzzi, “Polar Grassmannians and their Codes”, Extended Abstract accepted for the MEGA2015 conference (2015), (arxiv:1509.07686).

### 5 OTHER PRINTED WORKS

1. L. Giuzzi, “Gruppi di Frobenius e strutture geometriche associate” (Frobenius groups and associated geometrical structures, in Italian): *tesi di laurea* at Università Cattolica di Brescia, under the supervision of Prof. S. Pianta.

