

List of publications

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1 ACCEPTED PAPERS

1. I. Cardinali, L. Giuzzi, “Grassmannians of codes”, *Finite Fields Appl.* **94** (2024) 102342 doi:10.1016/j.ffa.2023.102342 (arxiv:2304.08397).
2. A. Aguglia, B. Csajbók, L. Giuzzi, “On regular sets of affine type in finite Desarguesian planes and related codes”, *Discrete Math.* **347** (2024) 113835 doi:10.1016/j.disc.2023.113835 (arxiv:2305.17103)
3. I. Cardinali, L. Giuzzi, “On orthogonal polar spaces”, *Linear Algebra Appl.* **674**, 495-518 (2023) doi:10.1016/j.laa.2023.06.013 (arxiv:2301.05876).
4. A. Aguglia, L. Giuzzi, “On the equivalence of certain quasi-Hermitian varieties”, *J. Combin. Des.* 1-15 (2022) doi:10.1002/jcd.21870 (arxiv:2108.04813).
5. I. Cardinali, L. Giuzzi, A. Pasini, “On the generation of some Lie-type geometries”, *J. Combin. Theory A* **193** 105673 (2023) doi:10.1016/j.jcta.2022.105673 (arxiv:1912.03484).
6. I. Cardinali, H. Cuyppers, L. Giuzzi, A. Pasini, “Characterizations of symplectic polar spaces”, *Adv. Geom.* **23**(2) (2023) 281-293 doi:10.1515/advgeom-2023-0006 (arxiv:2205.14426).
7. A. Aguglia, M. Ceria, L. Giuzzi, “Some hypersurfaces over finite fields, minimal codes and secret sharing schemes”, *Des. Codes. Cryptogr.* (2022) doi:10.1007/s10623-022-01051-1 (arxiv:2105.14508).
8. I. Cardinali, L. Giuzzi, A. Pasini, “Nearly all subspaces of a classical polar space arise from its universal embedding”, *Linear Algebra Appl.* **627**:287-307 (2021) doi:10.1016/j.laa.2021.06.013 (arxiv:2010.07640).
9. I. Cardinali, L. Giuzzi, M. Kwiatkowski, “On the Grassmann Graph of Linear Codes”, *Finite Fields Appl.* **75**:101895 (2021) doi:10.1016/j.ffa.2021.101895 (arxiv:2005.04402).
10. I. Cardinali, L. Giuzzi, A. Pasini, “The generating rank of a polar Grassmannian”, *Adv. Geom.* **21**(4):515-539 (2021) (arxiv:1906.10560).
11. A. Aguglia, L. Giuzzi, A. Sonnino, “Near-MDS codes from elliptic curves”, *Des. Codes Cryptogr.* **89**: 965-972 (2021) doi:10.1007/s10623-021-00852-0 (arxiv:2009.05623).
12. A. Aguglia, L. Giuzzi, M. Homma, “On Hermitian varieties in $PG(6, q^2)$ ”, *Ars Mathematica Contemporanea* (2021) doi:10.26493/1855-3974.2358.3c9 (arxiv:2006.04099).
13. I. Cardinali, L. Giuzzi, A. Pasini, “Grassmann embeddings of polar Grassmannians”, *J. Combin. Theory Series A* **170**: 105-133 (2020) doi:10.1016/j.jcta.2019.105133 (arxiv:1810.12811).
14. I. Cardinali, L. Giuzzi, “Implementing Line-Hermitian Grassmann codes”, *Linear Algebra Appl.* **580**: 96-120 (2019) doi:10.1016/j.laa.2019.06.020 (arxiv:1804.03024).
15. I. Cardinali, L. Giuzzi, “Geometries arising from trilinear forms on low-dimensional vector spaces”, *Adv. Geom.* **19**: 269-290 (2019) doi:10.1515/advgeom-2018-0027 (arxiv:1703.06821).
16. L. Giuzzi, F. Zullo, “Identifiers for MRD-codes”, *Linear Algebra appl.* **575**: 66-86 (2019) doi:10.1016/j.laa.2019.03.030 (arxiv:1807.09476).
17. I. Cardinali, L. Giuzzi, “Line Hermitian Grassmann Codes and their Parameters”, *Finite Fields Appl.* **51**: 407-432 (2018) doi:10.1016/j.ffa.2018.02.006 (arxiv:1706.10255).
18. I. Cardinali, L. Giuzzi, “Minimum distance of Line Orthogonal Grassmann Codes in even characteristic”, *J. Pure Applied Algebra* **222**: 2975-2988 (2018) doi:10.1016/j.jpaa.2017.11.009 (arxiv:1605.09333).

19. I. Cardinali, L. Giuzzi, A. Pasini, "On transparent embeddings of point-line geometries", *J. Combin. Theory Series A* 155: 190-224 (2018) doi:10.1016/j.jcta.2017.11.001 (arxiv:1611.07877).
20. 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).
21. I. Cardinali, L. Giuzzi, A. Pasini, "A geometric approach to alternating k -linear forms", *J. Algebraic Combin.* 45: 931-963 (2017) doi:10.1007/s10801-016-0730-6 (arxiv:1601.08115).
22. 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).
23. 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).
24. 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.
25. 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).
26. 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).
27. 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).
28. 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).
29. 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).
30. 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).
31. A. Benini, L. Giuzzi, A. Pasotti, "Down-linking (K_v, Γ) -designs to P_3 -designs", *Util. Math.* 90: 3-21 (2013) ISSN: 0315-3681 (arxiv:1004.4127).
32. 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).
33. 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).
34. 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).
35. 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).
36. 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).
37. 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).
38. 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).
39. 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).
40. A. Aguglia, L. Giuzzi, "Orthogonal arrays from Hermitian varieties", *Innov. Incidence Geom.* 5: 129-144 (2007), ISSN: 1781-6475 (arxiv:0705.3590).
41. 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.

42. L. Giuzzi, “On the intersection of Hermitian surfaces”, *J. Geom.*, 85: 49–60 (2006), ISSN: 0047-2468, doi:10.1007/s00022-006-0042-4.
43. L. Giuzzi, G. Korchmáros, “Ovoids of the Hermitian Surface in Odd Characteristic”, *Adv. Geom.*, Special Issue (2003), S49–S58, ISSN: 1615-715X.
44. L. Giuzzi, “A characterisation of classical unitals”, *J. Geom.*, 74: 86–89 (2002), ISSN: 0047-2468, doi:10.1007/PL00012541.
45. 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.
46. 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 PREPRINTS

1. A. Aguglia, L. Giuzzi, V. Siconolfi, “On mutually μ -intersecting quasi-Hermitian varieties with some applications”, (arxiv:2406.15589).
2. A. Aguglia, L. Giuzzi, A. Montinaro, V. Siconolfi, “On quasi-Hermitian varieties in even characteristic and related orthogonal arrays”, (arxiv:2310.02936)
3. I. Cardinali, L. Giuzzi, A. Pasini, “On the generation of polar grassmannians”.
4. L. Giuzzi, A. Sonnino, “Alcune note introduttive sulla crittografia”, *Quaderno del seminario matematico di Brescia* n. 01/2006.
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, “Intersections of Hermitian surfaces/2: matrices”, *Quaderno del seminario matematico di Brescia* n. 14/2001.
7. L. Giuzzi, “Intersections of Hermitian surfaces/1: configurations”, *Quaderno del seminario matematico di Brescia* n. 11/2001.
8. L. Giuzzi, “Size of Hermitian intersections”, *Quaderno del seminario matematico di Brescia* n. 07/2001.
9. 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.

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.

