Curriculum Vitae of Bart De Bruyn

Personal information

- Born on January 19th, 1974 in Geraardsbergen (Belgium)
- Belgian nationality
- Work address: Department of Mathematics: Algebra and Geometry, Ghent University, Krijgslaan 281 (S25), 9000 Gent, Belgium
- Email: Bart.DeBruyn@Ugent.be

Education

- July 1994: Bachelor's degree in engineering with highest distinction (Ghent University)
- September 1995: Bachelor's degree in mathematics with highest distinction (Ghent University)
- July 1997: Master's degree in mathematics with highest distinction (Ghent University)
- July 1997: Master's degree in engineering with high distinction (Ghent University)
- February 29th, 2000: Ph.D. in Mathematics with highest distinction (Ghent University), Title: Constructions and characterizations of near polygons, Supervisor: Frank De Clerck

Employment

- October 1st, 1997 September 30th, 2000: Research Assistant of the Research Foundation Flanders (Belgium)
- October 1st, 2000 September 30th, 2007: Postdoctoral Fellow of the Research Foundation Flanders (Belgium)
- October 1st, 2007 September 30th, 2009: Assistant Professor at Ghent University (30%) and Postdoctoral Fellow of the Research Foundation Flanders (Belgium) (70%)
- October 1st, 2009 September 30th, 2011: Assistant Professor at Ghent University (100%)
- October 1st, 2011 ...: Associate Professor at Ghent University (100%)

Teaching

- I have taught courses at Ghent University about Linear Algebra, Projective Geometry, Discrete Mathematics, Finite Geometry, Graph Theory, Fourier Analysis and Vector Analysis.
- Current average teaching load: 3/4 courses per year
- In January-February 2012, I have been teaching a course on "Discrete Mathematics" (as visiting professor) at the University of Incheon in South Korea.

Awards

- First Prize (and first place) Flemish Mathematical Olympiad, edition 1991.
- First Prize (and first place) Flemish Mathematical Olympiad, edition 1992.
- Second Prize (Silver) International Mathematical Olympiad, July 1992 (Moscow, Russia).
- First Prize (and second place) "Universitaire Wiskunde Competitie", 1996. (This is a mathematics competition which is open for all students studying at a Flemish or Dutch university).
- Prize Prof. Wuytack, July 1997. (Prize for the best student in mathematics at the graduating ceremony).
- Hall Medal 2013 awarded by the Institute of Combinatorics and its Applications.

(Research) visits

- April May 1999 (6 weeks): University of Colorado at Denver, USA (visiting Stanley Payne)
- August September 2004 (6 weeks): University of Colorado at Denver, USA (visiting Stanley Payne)
- February 15th till July 14th 2005 (5 months): University of Siena, Italy (visiting Antonio Pasini), with GNSAGA-grant (Professore visitatore) of "Instituto Nazionale di Alta Matematica Franceso Severi"
- February March 2006 (5 weeks): University of California at Santa Cruz, USA (visiting Bruce Cooperstein)
- April, May and June 2006 (3 months): University of Siena, Italy (visiting Antonio Pasini and Ilaria Cardinali), with GNSAGA-grant (Professore visitatore) of "Instituto Nazionale di Alta Matematica Franceso Severi"

- February 2007 (2 weeks): University of Birmingham, UK (visiting Sergey Shpectorov) (funded by "London Mathematical Society")
- March 2009 (1 month): University of Siena, Italy (visiting Antonio Pasini and Ilaria Cardinali), with GNSAGA-grant (Professore visitatore) of "Instituto Nazionale di Alta Matematica Franceso Severi"
- November December 2009 (2 weeks): Pohang University of Science and Technology, South Korea (visiting Jack Koolen)
- February 2011 (1 week): University of Colorado at Fort Collins, USA (visiting Tim Penttila)
- September 2011 (1 week): University of Birmingham, UK (visiting Sergey Shpectorov)
- October November 2011 (1 week): University of California at Santa Cruz, USA (visiting Bruce Cooperstein)
- November 2011 (1 week): University of Colorado at Denver, USA (visiting Stanley Payne)
- Visiting professor "University of Incheon", South Korea, January 4th till February 4th 2012 (exchange agreement between Ghent University and University of Incheon) to teach course on "Discrete mathematics"
- May 2014 (1 week): Imperial college, UK (visiting Jeroen Schillewaert)
- April 2015 (1 month): Visiting Research Fellow in the School of Mathematics and Statistics, University of Western Australia (visiting John Bamberg)
- March April 2016 (2 weeks): University of Siena, Italy (visiting Ilaria Cardinali)
- March April 2017 (2 weeks): National Institute of Science Education and Research (NISER), India (visiting Binod Sahoo).
- January 2020 (2 weeks): National Institute of Science Education and Research (NISER), India (visiting Binod Sahoo).

Ph.D. students

- Pieter Vandecasteele. On the classification of dense near polygons with lines of size 3, December 17th 2004, Ghent University. (Supervisors: Bart De Bruyn and Frank De Clerck)
- Mariusz Kwiatkowski. On trivectors and hyperplanes of symplectic dual polar spaces, November 9th 2012, Ghent University. (Supervisor: Bart De Bruyn)
- Anurag Bishnoi. Some contributions to incidence geometry and the polynomial method, December 20th 2016, Ghent University. (Supervisor: Bart De Bruyn)

At this moment, I am co-supervisor of four other PhD students, namely Magali Victoor and Johannes Roth (jointly with Hendrik Van Maldeghem), Puspendu Pradhan (jointly with Binod Sahoo) and Dibyayoti Jena (jointly with Geertrui Van de Voorde).

Organisation of conferences / seminars

- Conference "Incidence Geometry and Buildings" (Ghent University; February 6th 2012 till February 10th 2012): jointly with Tom De Medts, Jef Thas, Koen Thas and Hendrik Van Maldeghem.
- Conference "Buildings, Generalized Polygons and Related Geometries" (Ghent University, june 24th 2020 till june 26th 2020; jointly with Pierre-Emmanuel Caprace, Tom De Medts, Dimitri Leemans, Bernhard Mühlherr, Jef Thas and Koen Thas), posponed because of Covid.
- I have been co-organizer of ULB-UGent-VUB-Seminar on Incidence Geometry.

Editorial work

- Innovations in Incidence Geometry: since 2005.
- Journal of Geometry: since November 1st 2013.
- Proceedings of the conference "Incidence Geometry and Buildings" (jointly with Tom De Medts, Jef Thas, Koen Thas and Hendrik Van Maldeghem).

Other scientific work

- I have acted as a referee for the following journals: Acta Mathematica Hungarica; Advances in Geometry; Annals of Mathematics and Physics; Australasian Journal of Combinatorics; Bulletin of the Belgian Mathematical Society Simon Stevin; Combinatorica; Designs, Codes and Cryptography; Discrete Applied Mathematics; Discrete Mathematics; European Journal of Combinatorics; Experimental Mathematics; Finite fields and Their Applications; Graphs and Combinatorics; Innovations in Incidence Geometry; Journal of Algebra; Journal of Algebraic Combinatorics; Journal of Combinatorial Designs; Journal of Applied Mathematics; Journal of Combinatorial Theory, Series A; Journal of Combinatorial Theory, Series B; Journal of Geometry; Journal of Multivariate Analysis; Letters in Mathematical Physics; Linear Algebra and its Applications; Mathematics (section Algebraic Geometry, Algebra and its Applications); Utilitas Mathematica.
- I have also acted as referee for proceedings of conferences.
- I have acted as a reviewer for Zentralblatt Math and Mathematival Reviews (till 2014).
- Memberships of Ph.D. committees: 14

• Assessments of project proposals / Scientific advices for promotions at universities: 25

Invited talks at conferences and colloquia (50 minutes)

- Contactforum "Generalized Polygons" (Palace of the Academies, Brussels, Belgium, November 20th 2000): Recent results on near polygons: a survey.
- The 35th KNU-PNU-PMI Algebraic Combinatorics Workshop (Pohang, South Korea, November 28th 2009): The valuations of the near 2n-gon \mathbb{G}_n .
- Combinatorics 2010 (Verbania, Italy, July 1st 2010): Hyperplanes and projective embeddings of dual polar spaces.
- Linear Algebraic Techniques in Combinatorics/Graph Theory (Banff, Canada, Februari 1st 2011): Pseudo-embeddings and pseudo-hyperplanes of pointline geometries.
- Groups and geometries (Bangalore, India, December 21st 2012): The uniqueness of the generalized octagon of order (2,4) containing a suboctagon of order (2,1).
- London Algebra Colloquium (Imperial College, London, May 15th 2014): Results on generalized quadrangles having regular points.
- Fifty years of Finite Geometry (Gent, Belgium, November 14th 2014): *Q-polynomial regular near 2d-gons.*
- Workshop "Buildings and Symmetry" (Perth, Australia, September 29th 2017): Some recent results on generalised polygons.
- 2017 Korea-China International Conference on Matrix Theory with Applications (Suwon, South Korea, December 16th 2017): On the Haemers-Mathon bound for regular near hexagons.
- Baer Colloquium 2019 (Giessen, Germany, June 15th 2019): TBA

Other talks at international conferences and colloquia

- Combinatorics 1998 (Mondello, Italy, June 1998): On linear representations of near hexagons.
- Discrete Dag (Gent, Belgium, December 1998): A common construction for several classes of generalized quadrangles.
- Conference on Finite Simple Groups, Geometries and Related Topics (Manhattan, Kansas, USA, March 2001): Near hexagons with four points on every line.

- 18th British Combinatorial Conference (Falmer, UK, July 2001): Characterizations of near hexagons by means of one local space.
- Fourth Shanghai Conference on Combinatorics (Shanghai, China, May 2002): Association schemes and regular near hexagons.
- Combinatorics 2002 (Maratea, Italy, June 2002): Characterizations of near polygons by means of big geodetically closed sub near polygons.
- Colloquium University of Regina (Regina, Canada, August 2004): *Near* polygons: a nice class of graphs. (Travel and accomodation were paid by the University of Regina)
- Combinatorics 2006 (Ischia, Italy, June 2006): Generalized quadrangles of order s with a span of regular points.
- Generalized quadrangles, ovals and related structures: A conference honoring Stanley E. Payne (Oxford, Ohio, USA, March 2007): Generalized quadrangles of order s with a hyperbolic line consisting of regular points.
- Combinatorics 2008 (Costermano, Italy, June 2008): Classification results regarding hyperplanes of finite dual polar spaces of rank 3.
- Galois Geometries and Applications 2009 (Gent, Belgium, May 2009): Hyperplanes of DW(5, K) with K a perfect field.
- 22nd British Combinatorial Conference (St. Andrews, UK, June 2009): Hyperplanes of DW(5, K) with K a perfect field.
- 23rd British Combinatorial Conference (Exeter, UK, July 2011): Hyperplanes of DW(5, K) containing a quad.
- The tenth international conference on finite fields and their applications (Gent, Belgium, July 2011): Nonclassical hyperplanes of DW(5,q).
- Algebraic Combinatorics: In memory of Bob Liebler (Fort Collins, USA, November 2011): Inequalities for regular near polygons, with applications to m-ovoids.
- Combinatorics 2012 (Perugia, Italy, September 2012): Projective embeddings of dual polar spaces arising from a class of alternative division rings.
- International Linear Algebra Society 2013 Meeting (Providence, USA, June 2013): On trivectors and hyperplanes of symplectic dual polar spaces.
- Buildings 2013 (Münster, Germany, October 2013): The uniqueness of the generalized octagon of order (2,4) containing a suboctagon of order (2,1).
- Rocky Mountain Conference on Graphs, Geometry and Combinatorics (Denver, USA, July 2014): Every generalized quadrangle of order 5 having a regular point is symplectic.
- Buildings 2015 (Münster, Germany, September 2015): The Suzuki chain near polygons.

- Combinatorics 2016 (Maratea, Italy, June 2016): On the Haemers-Roos inequality for generalized hexagons.
- Second Malta Conference in Graph Theory and Combinatorics (Qawra, Malta, June 2017): On the Mathon bound for regular near hexagons.
- Buildings 2018 (Münster, Germany, October 2018): Projective embeddings of dual polar spaces.
- ILAS 2019 (Rio de Janeiro, Brazil, July 2019): Three approaches to extremal generalized hexagons.

The following talks were at conferences for which participation was only by invitation.

- Second Pythagorean Conference (Samos, Greece, June 1999): A common construction for several classes of generalized quadrangles.
- Geometric and Algebraic Combinatorics (Oisterwijk, The netherlands, August 1999): Near hexagons with four points on every line.
- Fourth Isle of Thorns conference (Isle of Thorns, UK, July 2000): Near polygons with three points on every line.
- Geometric and Algebraic Combinatorics 2 (Oisterwijk, The netherlands, August 2002): Characterizations of near polygons by means of big geodetically closed sub near polygons.
- Finite Geometries, First Irsee Conference (Irsee, Germany, February 2003): On the number of finite near hexagons with three points on each line.
- Third Pythagorean Conference (Rhodos, Greece, June 2003): Recent classification results on dense near polygons with three points per line.
- Incidence Geometry, International Conference at La Roche (La Roche, Belgium, May 2004): The nonexistence of distance-regular graphs with intersection array {80, 78, 76, 56; 1, 2, 12, 40}.
- Geometric and Algebraic Combinatorics 3 (Oisterwijk, The netherlands, August 2005): *Minimal scattered sets and polarized embeddings of dual polar spaces.*
- Finite Geometries, Second Irsee Conference (Irsee, Germany, September 2006): GQ(s) with a hyperbolic line consisting of regular points.
- Geometric and Algebraic Combinatorics 4 (Oisterwijk, The netherlands, August 2008): Classification results regarding hyperplanes of finite dual polar spaces of rank 3.
- Fourth Pythagorean Conference (Corfu, Greece, June 2010): On extensions of hyperplanes of dual polar spaces.
- Third Irsee Conference (Irsee, Germany, June 2011): The uniqueness of the generalized octagon of order (2,4) containing a suboctagon of order (2,1).

- Geometric and Algebraic Combinatorics 5 (Oisterwijk, The netherlands, August 2011): The uniqueness of the generalized octagon of order (2,4) containing a suboctagon of order (2,1).
- Fourth Irsee Conference (Irsee, Germany, September 2014): Inequalities for regular near polygons, with applications to m-ovoids and the nonexistence of certain distance-regular graphs.
- Fifth Irsee Conference (Irsee, Germany, September 2017): On the Mathon bound for regular near hexagons.
- International Congress on Mathematical Software 2020, Session: The Classification Problem in Geometry (Virtual conference, July 2020): Classification results for hyperovals of generalized quadrangles

I have also given several seminar talks (about 30) at the following universities: Ghent University, Vrije Universiteit Brussel, Université Libre de Bruxelles, University of Colorado at Denver, Colorado State University, University of California at Santa Cruz, Università degli studi di Napoli Frederico II, University of Birmingham, Queen Mary, University of Western Australia, School of Mathematical Sciences at NISER (Bhubaneswar, India), Freie Universität Berlin.

Publications

Books

[B1] B. DE BRUYN. *Near polygons.* (263pp.) Frontiers in Mathematics, Birkhäuser, Basel, 2006. ISBN: 3-7643-7552-3

[B2] B. DE BRUYN. An introduction to Incidence Geometry. (372pp.) Frontiers in Mathematics, Birkhaüser, Basel, 2016. ISBN: 978-3-319-43810-8

Publications in journals

[1] B. DE BRUYN AND F. DE CLERCK. Near polygons from partial linear spaces. *Geom. Dedicata* 75 (1999), 287–300.

[2] B. DE BRUYN AND F. DE CLERCK. On linear representations of near hexagons. *European J. Combin.* 20 (1999), 45–60.

[3] B. DE BRUYN. Generalized quadrangles with a spread of symmetry. *European J. Combin.* 20 (1999), 759–771.

[4] B. DE BRUYN. On near hexagons and spreads of generalized quadrangles. J. Algebraic Combin. 11 (2000), 211–226.

[5] B. DE BRUYN. On the number of nonisomorphic glued near hexagons. *Bull. Belg. Math. Soc. Simon Stevin* 7 (2000), 493–510.

[6] B. DE BRUYN. On near-polygons and the Coxeter cap in PG(5,3). J. Geom. 68 (2000), 23–33.

[7] B. DE BRUYN. Glued near polygons. *European J. Combin.* 22 (2001), 973–981.

[8] B. DE BRUYN. Near hexagons with four points on a line. Adv. Geom. 1 (2001), 211–228.

[9] B. DE BRUYN. Recent results on near polygons: a survey. pp 39–59 in *Proceedings of the Academy Contact Forum, 20 october 2000, Brussels* (F. De Clerck, L. Storme, J. A. Thas, H. Van Maldeghem, eds.), Universa Press, 2001.

[10] B. DE BRUYN. On the uniqueness of near polygons with three points on every line. *European J. Combin.* 23 (2002), 523–528.

[11] B. DE BRUYN. The glueing of near polygons. Bull. Belg. Math. Soc. Simon Stevin 9 (2002), 621–630.

[12] B. DE BRUYN AND K. THAS. Generalized quadrangles with a spread of symmetry and near polygons. *Illinois J. Math.* 46 (2002), 797–818.

[13] B. DE BRUYN AND S. E. PAYNE. Generalized quadrangles with a unique grid through every two intersecting lines. *Bull. Inst. Combin. Appl.* 35 (2002), 47–52.

[14] B. DE BRUYN. Near polygons having a big sub near polygon isomorphic to \mathbb{H}_n . Ann. Comb. 6 (2002), 285–294.

[15] B. DE BRUYN. Characterizations of near hexagons by means of one local space. J. Combin. Theory Ser. A 102 (2003), 283–292.

[16] R. BLOK, B. DE BRUYN AND U. MEIERFRANKENFELD. A thin near hexagon with 50 points. J. Combin. Theory Ser. A 102 (2003), 293–308.

[17] B. DE BRUYN AND P. VANDECASTEELE. Two conjectures regarding dense near polygons with three points on each line. *European J. Combin.* 24 (2003), 631–647.

[18] B. DE BRUYN. On the finiteness of near polygons with 3 points on every line. J. Algebraic Combin. 18 (2003), 41–46.

[19] B. DE BRUYN. New near polygons from Hermitian varieties. *Bull. Belg. Math. Soc. Simon Stevin* 10 (2003), 561–577.

[20] B. DE BRUYN. A new geometrical construction for the near hexagon with parameters $(s, t, T_2) = (2, 5, \{1, 2\})$. J. Geom. 78 (2003), 50–58.

[21] B. DE BRUYN. Near polygons having a big sub near polygon isomorphic to \mathbb{G}_n . Bull. Belg. Math. Soc. Simon Stevin 11 (2004), 321–341.

[22] B. DE BRUYN AND P. VANDECASTEELE. Near polygons with a nice chain of sub near polygons. J. Combin. Theory Ser. A 108 (2004), 297–311.

[23] B. DE BRUYN. On a nice property of the sequence $x_{n+2} = \frac{x_{n+1}^3}{(x_n^2 - 2x_{n+1}^2)}$. Int. J. Appl. Math. 15 (2004), 159–163.

[24] B. DE BRUYN. Decomposable near polygons. Ann. Comb. 8 (2004), 251–267.

[25] B. DE BRUYN AND P. VANDECASTEELE. Valuations of near polygons. *Glasg. Math. J.* 47 (2005), 347–361.

[26] B. DE BRUYN. Slim near polygons. *Des. Codes Cryptogr.* 37 (2005), 263–280.

[27] B. DE BRUYN AND P. VANDECASTEELE. Valuations and hyperplanes of dual polar spaces. J. Combin. Theory Ser. A 112 (2005), 194–211.

[28] B. DE BRUYN. On a problem regarding the *n*-sectors of a triangle. *Forum Geom.* 5 (2005), 47–52.

[29] B. DE BRUYN AND H. PRALLE. The hyperplanes of DW(5,q) with no ovoidal quad. *Glasg. Math. J.* 48 (2006), 75–82.

[30] B. DE BRUYN AND P. VANDECASTEELE. The valuations of the near hexagons related to the Witt designs S(5, 6, 12) and S(5, 8, 24). J. Combin. Des. 14 (2006), 214–228.

[31] I. CARDINALI, B. DE BRUYN AND A. PASINI. Locally singular hyperplanes in thick dual polar spaces of rank 4. *J. Combin. Theory Ser. A* 113 (2006), 636–646.

[32] B. DE BRUYN AND P. VANDECASTEELE. Near polygons having a big sub near polygon isomorphic to $H^D(2n-1,4)$. Ars Combin. 79 (2006), 47–64.

[33] B. DE BRUYN. Bounding the size of near hexagons with lines of size 3. J. Graph Theory 52 (2006), 108–122.

[34] B. DE BRUYN. Compatible spreads of symmetry in near polygons. J. Algebraic Combin. 23 (2006), 137–148.

[35] B. DE BRUYN. Dense near polygons with hexes of type $H^D(5, q^2)$, $Q(5, q) \times L_{q+1}$ or $Q(5,q) \otimes Q(5,q)$. J. Combin. Theory Ser. A. 113 (2006), 762–778.

[36] B. DE BRUYN. Distance *j*-ovoids in regular near 2*d*-gons. *Graphs Combin.* 22 (2006), 203–216.

[37] B. DE BRUYN. The completion of the classification of the regular near octagons with thick quads. J. Algebraic Combin. 24 (2006), 23–29.

[38] B. DE BRUYN AND P. VANDECASTEELE. The distance-2-sets of the slim dense near hexagons. *Ann. Comb.* 10 (2006), 193–210.

[39] B. DE BRUYN AND P. VANDECASTEELE. The valuations of the near octagon \mathbb{I}_4 . *Electron. J. Combin.* 13 (2006), Research paper 76, 23pp.

[40] B. DE BRUYN. Dense near polygons with two types of quads and three types of hexes. J. Combin. Math. Combin. Comput. 57 (2006), 113–128.

[41] B. DE BRUYN. Generalized quadrangles of order *s* with a hyperbolic line consisting of regular points. *Electron. Notes Discrete Math.* 26 (2006), 39–42.

[42] I. CARDINALI, B. DE BRUYN AND A. PASINI. The simple connectedness of hyperplane complements in thick dual polar spaces of rank at least 4. *Electron. Notes Discrete Math.* 26 (2006), 15–20.

[43] B. DE BRUYN AND A. PASINI. A note on symplectic polar spaces over non-perfect fields of characteristic 2. *Electron. Notes Discrete Math.* 26 (2006), 119–121.

[44] B. DE BRUYN AND P. VANDECASTEELE. The classification of the slim dense near octagons. *European J. Combin.* 28 (2007), 410–428.

[45] B. DE BRUYN. Valuations of glued near hexagons. J. Combin. Des. 15 (2007), 35–48.

[46] I. CARDINALI, B. DE BRUYN AND A. PASINI. Minimal full polarized embeddings of dual polar spaces. J. Algebraic Combin. 25 (2007), 7–23.

[47] B. DE BRUYN. A characterization of the SDPS-hyperplanes of dual polar spaces. *European J. Combin.* 28 (2007), 705–714.

[48] B. DE BRUYN. Dense near octagons with four points on each line, I. Ann. Comb. 11 (2007), 127–142.

[49] B. DE BRUYN. The hyperplanes of $DQ(2n, \mathbb{K})$ and $DQ^{-}(2n+1, q)$ which arise from their spin-embeddings. J. Combin. Theory Ser. A. 114 (2007), 681–691.

[50] B. DE BRUYN. A general theory for dense near polygons with a nice chain of subgons. *European J. Combin.* 28 (2007), 1395–1411.

[51] B. DE BRUYN AND H. PRALLE. The exceptional hyperplanes of DH(5,4). European J. Combin. 28 (2007), 1412–1418.

[52] B. DE BRUYN. The universal embedding of the near polygon \mathbb{G}_n . Electron. J. Combin. 14 (2007), Research paper 39, 12pp.

[53] B. DE BRUYN. Tight sets of points in the half-spin geometry related to $Q^+(9,q)$. Linear Algebra Appl. 424 (2007), 480–491.

[54] B. DE BRUYN. Dense near octagons with four points on each line, II. Adv. Geom. 7 (2007), 191–206.

[55] B. DE BRUYN. On the hyperplanes of the half-spin geometries and the dual polar spaces $DQ(2n, \mathbb{K})$. J. Combin. Theory Ser. A. 114 (2007), 979–992.

[56] B. DE BRUYN AND A. PASINI. Minimal scattered sets and polarized embeddings of dual polar spaces. *European J. Combin.* 28 (2007), 1890–1909.

[57] B. DE BRUYN AND A. PASINI. Generating symplectic and Hermitian dual polar spaces over arbitrary fields nonisomorphic to \mathbb{F}_2 . *Electron. J. Combin.* 14 (2007), Research paper 54, 17pp.

[58] B. DE BRUYN. A decomposition of the natural embedding spaces for the symplectic dual polar spaces. *Linear Algebra Appl.* 426 (2007), 462–477.

[59] B. DE BRUYN AND H. PRALLE. On small and large hyperplanes of DW(5,q). Graphs Combin. 23 (2007), 367–380.

[60] B. DE BRUYN. Hyperplanes of DW(2n-1,q), $q \neq 2$, without ovoidal quads. Discrete Math. 307 (2007), 2680–2694.

[61] B. DE BRUYN. The generating rank of the $U_4(3)$ near hexagon. Discrete Math. 307 (2007), 2900–2905.

[62] B. DE BRUYN AND A. PASINI. Minimal underlying division rings of sets of points of a projective space. *J. Algebra* 318 (2007), 641–652.

[63] B. DE BRUYN AND P. VANDECASTEELE. The valuations of the near octagon \mathbb{H}_4 . *Graphs Combin.* 23 (2007), 601–623.

[64] B. DE BRUYN AND S. E. PAYNE. Some notes on generalized quadrangles with a span of regular points. *Beiträge Algebra Geom.* 48 (2007), 49–58.

[65] B. DE BRUYN. A coordinatization structure for generalized quadrangles with a regular spread. *European J. Combin.* 29 (2008), 242–253.

[66] B. DE BRUYN. Isometric full embeddings of DW(2n-1,q) into $DH(2n-1,q^2)$. Finite Fields Appl. 14 (2008), 188–200.

[67] B. N. COOPERSTEIN AND B. DE BRUYN. The combinatorial properties of the hyperplanes of DW(5,q) arising from embedding. *Des. Codes Cryptogr.* 47 (2008), 35–51.

[68] I. CARDINALI AND B. DE BRUYN. The structure of full polarized embeddings of symplectic and Hermitian dual polar spaces. *Adv. Geom.* 8 (2008), 111–137.

[69] B. DE BRUYN AND H. PRALLE. The hyperplanes of $DH(5,q^2)$. Forum Math. 20 (2008), 239–264.

[70] B. DE BRUYN. The structure of the spin-embeddings of dual polar spaces and related geometries. *European J. Combin.* 29 (2008), 1242–1256.

[71] B. DE BRUYN. Two classes of hyperplanes of dual polar spaces without subquadrangular quads. J. Combin. Theory Ser. A. 115 (2008), 893–902.

[72] B. DE BRUYN. A characterization of *m*-ovoids and *i*-tight sets of polar spaces. *Adv. Geom.* 8 (2008), 367–375.

[73] B. DE BRUYN. The uniqueness of the generalized quadrangle of order 5 with an axis of symmetry. *Ars Combin.* 88 (2008), 203–216.

[74] B. DE BRUYN. Two new classes of hyperplanes of the dual polar space DH(2n - 1, 4) not arising from the Grassmann-embedding. Linear Algebra Appl. 429 (2008), 2030-2045.

[75] B. DE BRUYN. A recursive construction for the dual polar spaces DQ(2n, 2). Discrete Math. 308 (2008), 5504–5515.

[76] B. DE BRUYN AND H. PRALLE. The hyperplanes of the near hexagon on the 2-factors of the complete graph K_8 . Discrete Math. 308 (2008), 5656–5671.

[77] B. DE BRUYN. On the Grassmann-embeddings of the hermitian dual polar spaces. *Linear Multilinear Algebra* 56 (2008), 665–677.

[78] B. DE BRUYN. Hyperplanes of embeddable Grassmannians arise from projective embeddings: A short proof. *Linear Algebra Appl.* 430 (2009), 418–422.

[79] I. CARDINALI, B. DE BRUYN AND A. PASINI. On the simple connectedness of hyperplane complements in dual polar spaces. *Discrete Math.* 309 (2009), 294–303.

[80] B. DE BRUYN. The hyperplanes of $DW(5, 2^h)$ which arise from embedding. *Discrete Math.* 309 (2009), 304–321.

[81] R. J. BLOK, I. CARDINALI AND B. DE BRUYN. On the nucleus of the Grassmann embedding of the symplectic dual polar space $DSp(2n, \mathbb{F})$, char(\mathbb{F}) = 2. European J. Combin. 30 (2009), 468–472.

[82] B. DE BRUYN. On a class of hyperplanes of the symplectic and Hermitian dual polar spaces. *Electron. J. Combin.* 16 (2009), Research paper 1, 20pp.

[83] B. DE BRUYN. An alternative definition of the notion valuation in the theory of near polygons. *Electron. J. Combin.* 16 (2009), Research paper 16, 14pp.

[84] B. DE BRUYN. The uniqueness of the SDPS-set of the symplectic dual polar space DW(4n-1,q), $n \ge 2$. European J. Combin. 30 (2009), 911–922.

[85] B. DE BRUYN. On isometric full embeddings of symplectic dual polar spaces into Hermitian dual polar spaces. *Linear Algebra Appl.* 430 (2009), 2541–2552.

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