Curriculum Vitae (Gábor P. Nagy, 14/05/2023)

Personal identification

Surname:	Nagy
Given names:	Gábor Péter
Date and place of birth:	Szeged (Hungary), 16/8/1972
Address:	H-6725 Szeged (Hungary), Dobó u. 77.
Nationality:	Hungarian
Civil status:	Married, 3 children
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Research topics

- Finite geometry, algebraic curves over finite fields, and their automorphisms
- Incidence structures, latin squares, designs, constructions of combinatorial objects
- Nonassociative structures, Bol loops and related group theory
- Coding theory, algebraic-geometric codes, parameters and decoding
- Cryptography, nonlinearity of vectorial Boolean functions
- Code-based post-quantum cryptography, true parameters of subfield subcodes

Education, degrees

Date	*Institution*	*Qualification*
2015	Hungarian Academy of Sciences	Doctor of Sciences
2013	University of Szeged (Hungary)	Habilitation
2000	University of Erlangen (Germany)	PhD in Mathematics
1999	University of Szeged (Hungary)	PhD in Mathematics
1995	University of Szeged (Hungary)	Degree in Mathematics

Professional experience

Date	*Institution*	*Position*
2023-	University of Szeged	Full professor
2016-2022	Budapest University of Technology	Full professor, department head
2003-2016	University of Szeged	Associate professor
2013-2016	MTA-ELTE GAC Research Group	Research fellow (part time)
1998-2000	University of Erlangen	Scientific assistant
1995-2003	University of Szeged	Assistant professor
1995-1996	University of Erlangen	Scientific assistant

Language skills

(1-5, 5 is the highest)

Language	*Reading*	*Speaking*	*Writing*
English	5	5	5
German	5	5	5
French	4	4	3
Russian	3	1	1

Membership in Professional Bodies

Editor of Journal of Geometry
Editor of Acta Math. Szeged
Editor of Quasigroups and Related Systems
Public member of the Hungarian Academy of Sciences

Other skills

Programming in HTML, PHP, C++ and mathematical script languages (GAP, SageMath, Maple).

Present position

Full professor at the University of Szeged (Hungary). Years of professional experience: 28.

Prizes, scholarships

Date	*Scholarship, prize*	*Place*
1992/93	TEMPUS scholarship	Ghent (Belgium)
1995	"Rényi Kató" Memorial Prize	–
Sept 1995	Scholarship of the Soros Foundation	Potenza (Italy)
1997	"Grünwald Géza" Memorial Prize	–
Sept-Dec 1998	Eötvös State Fellowship	Erlangen (Germany)
2000–2003	Bolyai János Research Fellow of the Hungarian Academy of Sciences	–
2003–2006	Széchenyi István Research Fellow of the Hungarian Ministry for Education	–
2007	FP6 Marie Curie Fellowship	University of Würzburg
2009	DAAD Short Research Grant	University of Würzburg
2010–2013	Bolyai János Research Fellow of the Hungarian Academy of Sciences	–

Participation in research projects

Subject	*Type*	*Date*	*Position*
Geometric algebra over fields of positive characteristic	OM FKFP	2001-2004	principal investigator
Discrete geometry and geometric algebra	MTA OTKA	2003-2006	principal investigator
Finite geometry	MTA OTKA	2003-2006	participant
Algebraic loops	Marie Curie Grant	2007	fellow
Sensor network based data collection and information processing	TÁMOP	2008-2010	participant
Random Network Coding and Designs over $GF(q)$	COST Action	2012-2015	substitute MC member
Graphs, groups, configurations, geometries	NKFIH OTKA	2015-2018	participant
Realizations of quasigroups in projective planes	NKFIH OTKA K 119687	2016-2020	principal investigator
Algebras and algorithms	NKFIH OTKA K 115288	2016-2021	participant
Security Enhancing Technologies for the Internet of Things	NKFIH NKP 2018-1.2.1-NKP-2018-00004	2018-2022	participant
Quantum Information National Laboratory		2022-2025	participant

Teaching experience

At the University of Szeged (Hungary) and the Budapest University of Technology and Economics, I gave courses at all level of Mathematics (BSc, MSc, PhD), mainly from geometry (Projective geometry, Algebraic plane curves, Finite geometry, Computer geometry), algebra (Geometry of classical group, Transformation groups, Linear algebra) and combinatorics (Graph theory, Coding theory). For students of computer science and of electrical engineering, I taught course in Applied Linear Algebra.
In 2015, I taught Diskrete Mathematik für Lehramt at the University of Würzburg. With Prof. Peter Müller (Würzburg), we organized the *Würzburg Winter School in Applied Algebra and Discrete Mathematics* for international students in 2015 and in 2018.

List of publications (Gábor P. Nagy, 14/05/2023)

References

[1] C. Carlet, R. Kiss, and G. P. Nagy. "Simplicity conditions for binary orthogonal arrays". In: *Des. Codes Cryptogr.* 91.1 (2023), pp. 151–163.

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[3] R. Kiss and G. P. Nagy. "On the nonexistence of certain orthogonal arrays of strength four". In: *Prikl. Diskretn. Mat.* 52 (2021), pp. 65–68.

[4] G. Korchmáros and G. Nagy. "Graphical Frobenius representations of non-abelian groups". In: *ARS MATHEMATICA CONTEMPORANEA* 20.1 (2021), pp. 89–102.

[5] D. Mezőfi and G. P. Nagy. "New Steiner 2-designs from old ones by paramodifications". In: *Discrete Appl. Math.* 288 (2021), pp. 114–122.

[6] G. P. Nagy. "Embeddings of Ree unitals in a projective plane over a field". In: *Finite Fields Appl.* 74 (2021), Paper No. 101875, 11.

[7] S. El Khalfaoui and G. P. Nagy. "Estimating the dimension of the subfield subcodes of Hermitian codes". In: *Acta Cybernet.* 24.4 (2020), pp. 625–641.

[8] G. Korchmáros, G. P. Nagy, and M. Timpanella. "Codes and gap sequences of Hermitian curves". In: *IEEE Trans. Inform. Theory* 66.6 (2020), pp. 3547–3554.

[9] A. Blokhuis, I. Kovács, G. P. Nagy, and T. Szőnyi. "Inherited conics in Hall planes". In: *Discrete Math.* 342.4 (2019), pp. 1098–1107.

[10] N. Bogya and G. P. Nagy. "Light dual multinets of order six in the projective plane". In: *Acta Math. Hungar.* 159.2 (2019), pp. 520–536.

[11] G. Korchmáros, G. P. Nagy, and P. Speziali. "Hemisystems of the Hermitian surface". In: *J. Combin. Theory Ser. A* 165 (2019), pp. 408–439.

[12] D. Mezőfi and G. P. Nagy. "On the geometry of full points of abstract unitals". In: *Des. Codes Cryptogr.* 87.12 (2019), pp. 2967–2978.

[13] G. Korchmáros and G. P. Nagy. "Group-labeled light dual multinets in the projective plane". In: *Discrete Math.* 341.8 (2018), pp. 2121–2130.

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[15] G. Korchmáros and G. P. Nagy. "3-nets realizing a diassociative loop in a projective plane". In: *Des. Codes Cryptogr.* 79.3 (2016), pp. 443–449.

[16] G. P. Nagy. "Doubly transitive sets of even permutations". In: *Bul. Acad. Ştiinţe Repub. Mold. Mat.* 1(80) (2016), pp. 78–82.

[17] N. Bogya, G. Korchmáros, and G. P. Nagy. "Classification of k-nets". In: *European J. Combin.* 48 (2015), pp. 177–185.

[18] G. Korchmáros, G. P. Nagy, and N. Pace. "k-nets embedded in a projective plane over a field". In: *Combinatorica* 35.1 (2015), pp. 63–74.

[19] A. Grishkov, M. Kinyon, and G. P. Nagy. "Solvability of commutative automorphic loops". In: *Proc. Amer. Math. Soc.* 142.9 (2014), pp. 3029–3037.

[20] G. Korchmáros, G. P. Nagy, and N. Pace. "3-nets realizing a group in a projective plane". In: *J. Algebraic Combin.* 39.4 (2014), pp. 939–966.

[21] G. P. Nagy. "Linear groups as right multiplication groups of quasifields". In: *Des. Codes Cryptogr.* 72.1 (2014), pp. 153–164.

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