CURRICULUM VITAE

Personal data

Name: Balázs Patkós
Place and date of birth: Budapest, Hungary, January 4 1978.
e-mail: patkos.balazs@renyi.hu

Research Interests: extremal and probabilistic combinatorics

Education

2003-2007 Central European University, Budapest, PhD in Mathematics and its Applications

Title of thesis: Problems in extremal finite set theory (supervisor: Gyula O.H. Katona)

Date of defense: January 2008

1996-2003 Eötvös Loránd University, Budapest, MSc in Mathematics

Current position

Research Professor and Head of Department of Combinatorics and its Applications at the Alfréd Rényi Institute of Mathematics in Budapest, Hungary, January 2021 - present

Earlier positions

- Senior Researcher at Laboratory of Combinatorial and Geometric Structures, Moscow Institute of Physics and Technology, October 2019 - December 2021
- Researcher (Senior Researcher) (2015 September - present) and Scientific Secretary (2014 July - 2019 December) at the Alfréd Rényi Institute of Mathematics in Budapest, Hungary,
- Researcher at MTA-ELTE Geometric and Algebraic Combinatorics Research Group, Budapest, Hungary, March 2014 - August 2015
- OTKA postdoctoral fellow at the Alfréd Rényi Institute of Mathematics in Budapest, Hungary, March 2011 - February 2014

- Young researcher (postdoc) at the Alfréd Rényi Institute of Mathematics in Budapest, Hungary, January 2010 - February 2011
- Researcher at the University of Memphis, September 2008 - December 2009
- Pre-doc fellowship at Eötvös University, Budapest, September 2007 - August 2008

Teaching experience

(all courses taught in English unless otherwise stated)

- Iowa State University, Ames, Iowa
  - Extremal Graph Tehory, 2024 Spring, math graduate course
  - Calculus 3, recitation sections, 2024 Spring, undergraduate course, mostly engineering student
- Péter Pázmány Catholic University, Budapest
  - Combinatorial Methods, 2023 Spring, for MSc students in engineering : interval systems; graph coloring, sequential algorithms; classes of perfect graphs; maximum and stable matchings in bipartite graphs; list coloring, kernel method; large cuts in graphs; greedy algorithm; probabilistic method; dynamic programming algorithms; balanced incomplete block designs, finite geometries; extremal problems; forwarding index; factorization, decomposition.
- Acquincum Institute of Technology, Budapest - study abroad program for US students,
  - Theory of Computation, 2016-17, 2017-18, 2018-19, 2019 Fall, 2021 Fall, 2022-23, 2023 Fall, 2024 Fall, 2025 Spring CS major undergraduate students finite automata, regular expressions, pushdown automata, context-free grammars, Turing machines, decidability, time and space complexity
- Budapest Semesters in Mathematics, - study abroad program for US students
  - Theory of Computation, 2019 Spring, Math major undergraduate students finite automata, regular expressions, pushdown automata, context-free grammars, Turing machines, decidability, time and space complexity
- McDaniel College, Budapest,

- Statistics (STA2215) 2013-14, 2014-15, 2015-16, various undergraduate students:
  basic statistical principles and techniques; summarizing and presenting data, measuring central tendency and dispersion in data, basic concepts of probability and probability distributions, estimation of parameters and testing of hypotheses through statistical inference, linear regression and simple correlation.
- Calculus (MAT1117) 2015 Spring, business major undergraduate students:
  initial study of limits, derivatives and integrals; review of trigonometric functions; differentiation techniques and formulas applied to rational and trigonometric functions; applications of derivatives including curve sketching; extrema and rate problems; definition of the integral; elementary applications of integrals.

- Business School of Central European University, Budapest,
  - Mathematics and its application, Fall 2007, undergraduate level
  - Math and modeling, Spring 2008, undergraduate level

- Technical University, Budapest (in Hungarian):
  - Introduction to Computation Theory 2007-08, :
    problem solving session for undergraduate students on basic number theory (congruences and algorithms for greeatest common divisor, etc), linear algebra (linear independence, matrix operations), graphs, groups.
  - Theory of Algorithms, 2010 Spring, 2010-11, 2011-12, 2012-13, :
    problem solving session for undergraduate students on search and shortest path algorithms in graphs, sorting algorithms, Turing machines, the classes P and NP.

- Eötvös University, Budapest (in Hungarian):
  - Calculus Fall 2001, Fall 2002, undergraduate level
  - Introduction to Discrete Mathematics, 2007-2008, 13-14, undergraduate level
  - Set Theory, 2013-14:
    a lecture for future mathematics teachers on the axiomatization of set theory and introduction to mathematical logic.

Supervised students
Koppány Encz, MSc, 2023, Eötvös University
Thesis title: Extremal Graph Theoretical Questions for q-ary Vectors

Academic visits:

- 2024 Spring - Iowa State University
- October and December 2019 Moscow Institute of Physics and Technology
- May 2015 Institute of Mathematics, Czech Academy of Sciences
- March - May 2012 Zhejiang Normal University

Scientific Awards, Fellowships, Grants:

- 2021: Rényi Prize (joint with Dániel Gerbner)
- December 2019 - November 2024 - NKFIH Grant FK 132060,
- September 2014 - August 2017 János Bolyai Fellowship of the Hungarian Academy of Sciences
- September 2011 - August 2013, János Bolyai Fellowship of the Hungarian Academy of Sciences
- March 2011 - February 2014 OTKA (Hungarian National Scientific Fund) Postdoctoral Grant
- 2011 Youth Award of the Hungarian Academy of Sciences
- September - November 2006: Marie-Curie Fellowship (Phenomena in High Dimensions) Tel Aviv University, Israel
- September - November 2006: Marie-Curie Fellowship (Phenomena in High Dimensions) Tel Aviv University, Israel
- October 2005 - January 2006: Marie-Curie Fellowship (COMBSTRU), Bielefeld Univesity, Germany
- 2005 CEU Award for Advanced Doctoral Students

Scientific Activities

- reviewer for Mathematical Reviews and referee for several international scientific journals,
- associate editor of Discrete Mathematics
- associate editor of Order
- deputy secretary general of the János Bolyai Mathematical Society,

Conference Organization

- secretary of the Local Organizing Committee of EuroComb25, Budapest, August 25-29, 2025
- secretary of the Organizing Committee of Sum(m)it280, Budapest, July 8-12, 2024
- founder and organizer of Emléktábla Workshop Series. (16 workshops from 2010 till 2024)
- organizer of Workshop on Graph and Hypergraph Domination, June 5-10, 2017
- secretary of the Organizing Committee of Sum(m)it240, Budapest, July 7-11, 2014
- member of the Organizing Committee of Miki Simonovits is 70, Budapest, January 3-4, 2014
- member of local Organizing Committee of Erdős Centennial, Budapest, July 1-5, 2013
- secretary of Organizing Committee of Katona70, Budapest, September 3-4, 2011
- co-secretary in Organizing Committee of EuroComb'11, Budapest August 29 - September 2, 2011

Publications

Book

Dániel Gerbner, Balázs Patkós, *Extremal Finite Set Theory*, CPC Press - Taylor and Francis Group, 2018.

Research articles in peer-reviewed scientific journals

94. Balázs Patkós, Size, diversity, minimum degree, sturdiness, dömdödöm, Ars Math. Contemp. 26 (2026), # 2.07, doi:10.26493/1855-3974.3528.e84
93. Shegjin Ji, Balázs Patkós, Erfei Yue, Poset saturation of unions of chains, Order, Volume 43, article number 17, (2026)
92. Dániel Gerbner, Balázs Patkós, A note on vertex Turán problems in the Kneser cube, Graphs and Combinatorics, 42, article number 17, (2026)
91. Dániel Gerbner, András Imolay, Gyula O. H. Katona, Dániel T. Nagy, Kartal Nagy, Balázs Patkós, Domonkos Stadler, Kristóf Zólomy, Identification of a monotone Boolean function with k "reasons" as a combinatorial search problem, Discrete Applied Mathematics, 378 (2026) 703-709.

90. Gábor Bacsó, Csilla Bujtás, Balázs Patkós, Zsolt Tuza, Máté Vizer, The robust chromatic number of certain graph classes, Discussiones Mathematicae Graph Theory 45 4 (2025), 1139-1155

89. Dömötör Pálvölgyi, Balázs Patkós, Projective and external saturation problem for posets, Order, 42 (2025) 157-167.

88. B. Patkós, M. Stojakovic, J. Stratijev, M. Vizer, Generalized saturation game, Discrete Applied Mathematics, 374 (2025) 33-49.

87. Ryan R. Martin, Balázs Patkós, A note on the Erdos Matching Conjecture, Studia Scientiarum Mathematicarum Hungarica 62 (2025) 63-69.

86. Yair Caro, Balázs Patkós, Zsolt Tuza, Máté Vizer, Edge mappings of graphs: Turán type parameters, European Journal of Combinatorics, 127 (2025), 104140

85. Dániel Gerbner, Balázs Keszegh, Kartal Nagy, Balázs Patkós, Gábor Wiener, Cooperation in Combinatorial Search, Optimization Letters, 19 (2025) 329-345.

84. Yair Caro, Balázs Patkós, Zsolt Tuza, Connected Turán number of trees, Ars Mathematica Contemporeana, 24 (4) 2024, P4.01

83. Dániel Gerbner, Balázs Keszegh, Dániel T. Nagy, Kartal Nagy, Dömötör Pálvölgyi, Balázs Patkós, Gábor Wiener, Query complexity of Boolean functions on the middle slice of the cube, Discrete Applied Mathematics, 362 (2024) 43-49.

82. Yair Caro, Balázs Patkós, Zsolt Tuza, Máté Vizer, Counting connected partitions of graphs, Journal of Graph Theory, 107 (2) (2024), 381–392.

81. Gábor Bacsó, Balázs Patkós, Zsolt Tuza, Máté Vizer, The Robust Chromatic Number of Graphs. Graphs and Combinatorics 40, 89 (2024).

80. Balázs Patkós, Zsolt Tuza, Máté Vizer, Extremal graph theoretic questions for q-ary vectors, Graphs and Combinatorics, 40 (2024) 57

79. Balázs Patkós, Milos Stojakovic, Máté Vizer, The Constructor-Blocker game, Applicable Analysis and Discrete Mathematics, 18 (2024), 193-214

78. Dániel Gerbner, Dániel Nagy, Balázs Patkós, Nika Salia, Máté Vizer, Stability of extremal connected hypergraphs avoiding Berge-paths, EUROPEAN JOURNAL OF COMBINATORICS 118 Paper: 103930 , 20 p. (2024)

77. Balázs Patkós, Andrew Treglown, On Some Extremal and Probabilistic Questions for Tree Posets, ELECTRONIC JOURNAL OF COMBINATORICS, 31 (1) (2024) P1.19

76. Dániel Gerbner, Balázs Patkós, Zsolt Tuza, Máté Vizer, Some exact results for regular Turán problems for all large orders, EUROPEAN JOURNAL OF COMBINATORICS, 117 (2024) 103828

75. Dániel Gerbner, Balázs Patkós, Generalized Turán results for intersecting cliques, DISCRETE MATHEMATICS, 347 (1) (2024) 113710

74. József Balogh, William Linz, Balázs Patkós, On the sizes of t-intersecting k-chain-free families, COMBINATORIAL THEORY, 3 (2) 2023

73. Dániel Gerbner, Balázs Patkós, Zsolt Tuza, Máté Vizer, Some exact results for regular Turán problems for all large orders, EUROPEAN JOURNAL OF COMBINATORICS, 103828

72. Dániel Gerbner, Balázs Keszegh, Dániel Lenger, Dániel T. Nagy, Dömötör Pálvölgyi, Balázs Patkós, Máté Vizer, Gábor Wiener, On graphs that contain exactly k copies of a subgraph, and a related problem in search theory, DISCRETE APPLIED MATHEMATICS, 341 (2023) 196–203.

71. Cory Palmer, Balázs Patkós, On the number of maximal independent sets: From Moon-Moser to Hujter-Tuza JOURNAL OF GRAPH THEORY 104 : 2 pp. 440-445. , 6 p. (2023)

70. Balázs Patkós, Zsolt Tuza, Máté Vizer, Vector sum-intersection theorems, DISCRETE MATHEMATICS, 346, 10, 2023, 113506

69. Gerbner, Dániel ; Patkós, Balázs ; Tuza, Zsolt ; Vizer, Máté Forbidden subposet problems in the grid DISCRETE MATHEMATICS 345 : 3 Paper: 112720 (2022)

68. Gerbner, Dániel ; Patkós, Balázs ; Tuza, Zsolt ; Vizer, Máté On saturation of Berge hypergraphs EUROPEAN JOURNAL OF COMBINATORICS 102 p. 103477 Paper: 103477 (2022)

67. Gerbner, Dániel ; Patkós, Balázs ; Tuza, Zsolt ; Vizer, Máté, Saturation problems with regularity constraints DISCRETE MATHEMATICS 345 : 8 p. 112921 Paper: 112921 (2022)

66. Gerbner, Dániel ; Patkós, Balázs ; Tuza, Zsolt ; Vizer, Máté, Singular Turán numbers and WORM-colorings DISCUSSIONES MATHEMATICAE GRAPH THEORY 42 : 4 pp. 1061-1074. , 14 p. (2022)

65. Gerbner, Dániel ; Nagy, Dániel T. ; Patkós, Balázs ; Vizer, Máté, Forbidden subposet problems in the grid DISCRETE MATHEMATICS 345 : 3 Paper: 112720 (2022)

64. Balogh, József ; Martin, Ryan R. ; Nagy, Dániel T. ; Patkós, Balázs, On Generalized Turán Results in Height Two Posets SIAM JOURNAL ON DISCRETE MATHEMATICS 36 : 2 pp. 1483-1495. , 13 p. (2022)

63. Gerbner, Dániel ; Patkós, Balázs Generalized Turán Problems for Complete Bipartite Graphs GRAPHS AND COMBINATORICS 38 : 5 Paper: 164 (2022)

62. Nagy, Dániel T. ; Patkós, Balázs Triangles in intersecting families MATHEMATIKA 68 : 4 pp. 1073-1079. , 7 p. (2022)

61. Frankl, Nóra ; Kiselev, Sergei ; Kupavskii, Andrey ; Patkós, Balázs, VC-saturated set systems EUROPEAN JOURNAL OF COMBINATORICS 104 103528 Paper: 103528 (2022)

60. Chang, Fei-Huang ; Gerbner, Dániel ; Li, Wei-Tian ; Methuku, Abhishek ; Nagy, Dániel T. ; Patkós, Balázs ; Vizer, Máté, Rainbow Ramsey Problems for the Boolean Lattice ORDER 39 pp. 453-463. (2022)

59. G., Damásdi ; D., Gerbner ; Gy., O. H. Katona ; B, Keszegh ; D., Lenger ; A., Methuku ; D. T., Nagy ; D., Pálvölgyi ; B., Patkós ; M., Vizer Adaptive Majority Problems for Restricted Query Graphs and for Weighted Sets DISCRETE APPLIED MATHEMATICS 288 pp. 235-245. , 11 p. (2021)

58. Gerbner, D. ; Nagy, D.T.; Patkós, B. ; Vizer, M. On the maximum number of copies of H in graphs with given size and order JOURNAL OF GRAPH THEORY 96 : 1 pp. 34-43. , 11 p. (2021)

57. Gerbner, D. ; Nagy, D. T. ; Patkós, B. ; Vizer, M. Supersaturation, counting, and randomness in forbidden subposet problems ELECTRONIC JOURNAL OF COMBINATORICS 28 : 1 Paper: P1.40 (2021)

56. Nagy, D. T. ; Patkós, B. On L-close Sperner systems GRAPHS AND COMBINATORICS 37 (3) 789–796 (2021)

55. Bresar, Bostjan ; Bujtas, Csilla ; Gologranc, Tanja ; Klavzar, Sandi ; Kosmrlj, Gasper ; Marc, Tilen ; Patkos, Balazs ; Tuza, Zsolt ; Vizer, Mate On Grundy total domination number in product graphs DISCUSSIONES MATHEMATICAE GRAPH THEORY 41 : 1 pp. 225-247. , 23 p. (2021)

54. Keszegh, Balazs ; Lemons, Nathan ; Martin, Ryan R. ; Palvolgyi, Domotor ; Patkos, Balazs Induced and non-induced poset saturation problems JOURNAL OF COMBINATORIAL THEORY SERIES A 184 Paper: 105497 , 20 p. (2021)

53. Klavzar, Sandi ; Patkos, Balazs ; Rus, Gregor ; Yero, Ismael G. On General Position Sets in Cartesian Products RESULTS IN MATHEMATICS 76 : 3 Paper: 123 , 21 p. (2021)

52. Patkós, B. On the general position problem on Kneser graphs ARS MATHEMATICA CONTEMPORANEA 18 : 2 pp. 273-280. , 8 p. (2020)

51. Patkós, B. On colorings of the Boolean lattice avoiding a rainbow copy of a poset DISCRETE APPLIED MATHEMATICS 276 108-114. , (2020)

50. Chang, H. ; Gerbner, D. ; Patkós, B. Finding non-minority balls with majority and plurality queries DISCRETE APPLIED MATHEMATICS 284 pp. 631-639. , 9 p. (2020)

49. András Gyárfás, Dömötör Pálvölgyi, Balázs Patkós, Matthew Wales Distribution of colors in Gallai colorings European Journal of Combinatorics, 86, (2020) 103087

48. Balázs Patkós, On colorings of the Boolean lattice avoiding a rainbow copy of a poset Discrete Applied Mathematics, 276 (2020), 108-114

47. Dániel Gerbner, Balázs Keszegh, Abhishek Methuku, Dániel T. Nagy, Balázs Patkós, Casey Tompkins, Chuanqi Xiao, Set systems related to a house allocation problem Discrete Mathematics, 343 (7) (2020), 111886

46. D. Gerbner, B. Keszegh, A. Methuku, B. Patkós, M. Vizer, An improvement on the maximum number of k-dominating independent sets, JOURNAL OF GRAPH THEORY 91 : 1 pp. 88-97. , 10 p. (2019)

45. Dániel Gerbner, Abhishek Methuku, Dániel Nagy, Balázs Patkos, Máté Vizer, Stability Results for Vertex Turán Problems in Kneser Graphs ELECTRONIC JOURNAL OF COMBINATORICS 26 : 2 p. P2.13 Paper: P2.13 (2019)

44. Cs. Bujtás, B. Patkós, Zs. Tuza, M. Vizer, Domination game on uniform hypergraphs DISCRETE APPLIED MATHEMATICS 258 pp. 65-75. , (2019)

43. Boštjan Brešar, Csilla Bujtás, Tanja Gologranc, Sandi Klavžar, Gašper Košmrlj, Tilen Marc, Balázs Patkós, Zsolt Tuza, Máté Vizer The variety of domination games, AEQUATIONES MATHEMATICAE, 93(6) 2019, 1085-1109

42. Dániel Gerbner, Abhishek Methuku, Dániel T. Nagy, Balq1azs Patkós, Máté Vizer On the number of containments in P-free families GRAPHS AND COMBINATORICS, 35 (6) 2019, 1519-1540

41. Dániel Gerbner, Abhishek Methuku, Dániel T. Nagy, Balázs Patkós, Máté Vizer Forbidding rank-preserving copies of a poset, ORDER, 36 (3) 2019, 611-620

40. Dániel Gerbner, Balázs Keszegh, Gábor Mészáros, Balázs Patkós, Máté Vizer, Line Percolation in Finite Projective Planes, SIAM JOURNAL ON DISCRETE MATHEMATICS 32:(2) pp. 864-881. (2018)

39. Dániel Gerbner, Balázs Keszegh, Cory Palmer, Balázs Patkós, On the Number of Cycles in a Graph with Restricted Cycle Lengths, SIAM JOURNAL ON DISCRETE MATHEMATICS 32:(1) pp. 266–279. (2018)

38. Dániel Gerbner, Balázs Patkós, Máté Vizer, Forbidden subposet problems for traces of set families ELECTRONIC JOURNAL OF COMBINATORICS 25 : 3 Paper: P3.49 , 17 p. (2018)

37. D. Gerbner, B. Keszegh, D. Pálvölgyi, B. Patkós, M. Vizer, G. Wiener, Finding a non-minority ball with majority answers, DISCRETE APPLIED MATHEMATICS 219:(11) 18–31. (2017)

36. Cs. Bujtás, B. Patkós, Zs. Tuza, M. Vizer, The minimum number of vertices in uniform hypergraphs with given domination number, DISCRETE MATHEMATICS 340:(11) 2704–2713 (2017)

35. B. Bresar , Cs. Bujtás, T. Gologranc, S. Klavzar, G. Kosmrlj, B. Patkós, Zs. Tuza, M. Vizer, Grundy dominating sequences and zero forcing sets DISCRETE OPTIMIZATION 26: 66–77 (2017)

34. B. Bresar , Cs. Bujtás, T. Gologranc, S. Klavzar, G. Kosmrlj, B. Patkós, Zs. Tuza, M. Vizer, Dominating Sequences in Grid-Like and Toroidal Graphs, ELECTRONIC JOURNAL OF COMBINATORICS 23:(4) Paper 4.34. 19 p. (2016)

33. B. Patkós Induced and non-induced forbidden subposet problems, ELECTRONIC JOURNAL OF COMBINATORICS 22:(1) Paper P1.30. 16 p. (2015)

32. Z.L. Nagy, B. Patkós, On the number of maximal intersecting k-uniform families and further applications of Tuza's set pair method, ELECTRONIC JOURNAL OF COMBINATORICS 22:(1) Paper P1.83. (2015)

31. Y. Kim, M. Kumbhat, Z.L. Nagy, B. Patkós, A. Pokrovskiy, M. Vizer, Identifying codes and searching with balls in graphs, DISCRETE APPLIED MATHEMATICS 193: 39-47. (2015)

30. T. Héger, B. Patkós, M. Takáts, Search problems in vector spaces, DESIGNS CODES AND CRYPTOGRAPHY 76:(2) 207-216. (2015)

29. A. Grzesik, M. Mikalacki, Z. L. Nagy, A. Naor, B. Patkos, F. Skerman, Avoider-Enforcer star games, DISCRETE MATHEMATICS AND THEORETICAL COMPUTER SCIENCE 17:(1) 145-160. (2015)

28. Balázs Patkós, Supersaturation and stability for forbidden subposet problems, JOURNAL OF COMBINATORIAL THEORY SERIES A 136: 220–237. (2015)

27. Balázs Patkós, Máté Vizer, Game saturation of intersecting families, Cent. Eur. J. Math., 2014, 12(9), 1382-1389

26. B. Keszegh, B. Patkós, X. Zhu Nonrepetitive colorings of lexicographic product of paths and other graphs, DISCRETE MATHEMATICS AND THEORETICAL COMPUTER SCIENCE 16:(2) 97–110. (2014)

25. Dániel Gerbner, Nathan Lemons, Cory Palmer Dömötör Pálvölgyi, Balázs Patkós, Vajk Szécsi, Almost Cross-Intersecting and Almost Cross-Sperner Pairs of Families of Sets, GRAPHS AND COMBINATORICS, 29 (2013), 489-498.

24. D. Gerbner, B. Keszegh, N. Lemons, C. Palmer, D. Pálvölgyi, Balázs Patkós, Saturating Sperner families, GRAPHS AND COMBINATORICS, 29 (2013), 1355–1364.

23. Z.L. Nagy, L Özkahya, Balázs Patkós, M. Vizer, On the ratio of maximum and minimum degree in maximal intersecting families, DISCRETE MATHEMATICS, 313 (2013), 207–211.

22. D. Gerbner, G.O.H. Katona, D. Pálvölgyi, Balázs Patkós, On majority and plurality problems, DISCRETE APPLIED MATHEMATICS, 161 (2013), 813-818.

21. Ida Kantor, Balázs Patkós, Towards a de Bruijn-Erdos theorem in the L_1-metric, DISCRETE AND COMPUTATIONAL GEOMETRY, 49 (2013), 659-670.

20. Balázs Patkós, Families that remain k-Sperner even after omitting an element of their ground set, ELECTRONIC JOURNAL OF COMBINATORICS, 20 (2013), P32

19. János Barát, Zoltán Füredi, Ida Kantor, Younjin Kim, Balázs Patkós, Large B_d-free and union-free subfamilies, SIAM J. ON DISCRETE MATHEMATICS, 26 (2012) 71–76

18. Dániel Gerbner, Nathan Lemons, Cory Palmer, Balázs Patkós, Vajk Szécsi, Cross-Sperner families, STUDIA SCI MATH HUNGARICA, 49 (2012), 44-51.

17. Balázs Patkós, A note on traces of set families, Moscow Journal of Combinatorics and Number Theory, 2 (2012), 47-55.

16. P.L. Erdős, D. Gerbner, N. Lemons, D. Mubayi and C. Palmer, Balázs Patkós, Two-part set systems, ELECTRONIC JOURNAL OF COMBINATORICS, 19 (2012), P52

15. Dániel Gerbner, Nathan Lemons, Cory Palmer, Balázs Patkós, Vajk Szécsi, Almost intersecting families, SIAM J. ON DISCRETE MATHEMATICS, 26 (2012), 1657-1669.

14. Paul Balister, Balázs Patkós, Random partial orders defined by angular domains, ORDER, 28 (2011) 341–355

13. D. Gerbner, B. Keszegh, N. Lemons, C. Palmer, D. Pálvölgyi, Balázs Patkós, Polychromatic Colorings of Arbitrary Rectangular Partitions, DISCRETE MATHEMATICS 310 (2010), 21–30.

12. A. Blokhuis, A.E. Brouwer, A. Chowdhury, T. Mussche, Balázs Patkós, T. Szőnyi, Hilton-Milner theorem for vector spaces, ELECTRONIC JOURNAL OF COMBINATORICS, 17 (2010), R71

11. Ameera Chowdhury, Balázs Patkós, Shadows and Intersections in Vector Spaces, JOURNAL OF COMBINATORIAL THEORY, SER A 117 (2010) 1095–1106

10. Balázs Patkós, On randomly generated non-trivially intersecting hypergraphs, ELECTRONIC JOURNAL OF COMBINATORICS **17** (2010), R26

9. Dániel Gerbner, Dömötör Pálvölgyi, Balázs Patkós, Gábor Wiener, Selecting the largest and the smallest elements with a lie, DISCRETE APPLIED MATHEMATICS 158, (2010), 988–995.

8. Dániel Gerbner, Balázs Patkós, Profile vectors in the lattice of subspaces, DISCRETE MATHEMATICS, 309 (2009) 2861-2869.

7. Michael Krivelevich, Balázs Patkós, Equitable coloring of random graphs, Random Structures and Algorithms 35 (2009) 83–99.

6. Balázs Patkós, l-trace k-Spener families, JOURNAL OF COMBINATORIAL THEORY, SER A, 116 (2009) 1047–1055.

5. Balázs Patkós, Krisztián Tichler, Gábor Wiener, Inclusionwise minimal completely separating systems, Journal of Statistical Theory and Practice, 3 (2009) 459–466.

4. Balázs Patkós, Traces of uniform set families, ELECTRONIC JOURNAL OF COMBINATORICS, 16 (2009) N8

3. Balázs Patkós, The distance of $\mathcal{F}$-free families, STUDIA SCI MATH HUNGARICA 46 (2009) 2, 275-286.

2. Dániel Gerbner, Balázs Patkós l-chain profile vectors, SIAM J ON DISCRETE MATHEMATICS 22 (2008) 1, 185-193.

1. Balázs Patkós, How different can two intersecting families be, ELECTRONIC JOURNAL OF COMBINATORICS 12 (2005) R24

Invited and plenary talks at workshops and conferences

- Uniform and non-uniform set system problems for disjointness patterns, International Symposium on Advanced and Sustainable Science and Technology, September 11-13, 2024, Taichung, Taiwan
- Q-ary generalizations of set intersection and extremal graph theoretic problems, Maribor Graph Theory Conference, September 11-15, 2022, Maribor, Slovenia
- Sum-interection theorems, Young Researchers in Extremal and Probabilistic Combinatorics, October 20-22, 2021, online Institute for Basic Science in South Korea
- Generalized Turán Results For Complete Bipartite Graphs and Intersecting Cliques, Moscow Conference on Combinatorics and Applications, online, 2021 June
- Induced and non-induced poset saturation problems, Combinatorics and Geometry Days II, Moscow Institute of Physics and Technology, April 2020
- Distributions of Colors in Gallai-colorings, 3rd Russian-Hungarian Combinatorics Workshop, May 20-22, 2019
- On colorings of the Boolean lattice avoiding a rainbow copy of a poset, One-Day Workshop on Extremal Set Theory and Related Topics in Combinatorics, Academia Sinica, April 1, 2019
- Forbidden Subposet Problems, International Conference on Discrete Mathematics - ICDM19, Tiruchirappalli, India, January 7-9, 2019
- Majority and Plurality Problems, International Conference on Graph Theory and its Applications - ICGTA19, Coimbatore, India, January 4-6, 2019
- Majority and Plurality Problems, Taiwan-Hungary Combinatorics Workshop, Taicsung, March 26, 2018.
- Generalized forbidden subposet problems, Recent Advances in Extremal Combinatorics Workshop, Sanya, China. May 22-26, 2017
- Forbidden subposet problems, 2016 International Workshop on Graph Theory and Combinatorics, Feb 18-20, 2016, Ewha Womans University, Seoul, Korea,