

## Conference program

### Sunday, April 7

19:00 - 20:00 REGISTRATION

### Monday, April 8

8:45 REGISTRATION

9:15 Opening

9:25 Charlene Weiß  
*Existence of  $t$ -designs in polar spaces for all  $t$*

9:50 Alena Ernst  
*Transitivity in finite general linear groups*

10:15 Lukas Klawuhn  
*Designs in the generalised symmetric group*

10:40 COFFEE

11:15 Pádraig Ó Catháin  
*Monomial representations and combinatorics*

11:40 Patrick Solé  
*Hadamard matrices and spherical designs*

12:05 Jan De Beule  
*Existence and non-existence of Cameron-Liebler  $k$ -sets in projective spaces*

12:30 Qing Xiang  
*Cameron-Liebler line classes, tight sets and strongly regular Cayley graphs*

13:00 LUNCH

14:30 **INVITED TALK**  
Michael Kiermaier  
*The degree of functions in the Johnson and  $q$ -Johnson schemes*

15:30 Misha Muzychuk  
*Constructing linked systems of relative difference sets via Schur rings*

15:55 Edwin van Dam  
*Amorphic association schemes and fusing pairs*

Tuesday, April 9

	SECTION A	SECTION B
9:00	Peter Danziger <i>Colouring Kirkman triple systems</i>	Giuliamaria Menara <i>Improving the lower bound for the order of correlation immune Boolean functions</i>
9:25	Francesca Merola <i>Banff designs: difference methods for coloring incidence graphs</i>	René Rodríguez Aldama <i>Bending and plateauing: an approach to minimal <math>p</math>-ary codes</i>
9:50	Alfred Wassermann <i>Higher incidence matrices and tactical decomposition matrices of designs</i>	Matteo Mravić <i>Construction of extremal <math>\mathbb{Z}_4</math>-codes using a neighborhood search algorithm</i>
10:15	Vito Napolitano <i>On <math>(4, r, 6)</math>-bipartite biregular cages</i>	Sara Ban <i>New extremal Type II <math>\mathbb{Z}_4</math>-codes of length 64</i>
10:40	COFFEE	
	SECTION A	SECTION B
11:15	Leo Storme <i>The minimum distance of the code of intersecting lines in <math>PG(3, q)</math></i>	Onur Ağırseven <i>Grid-based graphs, linear realizations, and the Buratti-Horak-Rosa conjecture</i>
11:40	Sanja Rukavina <i>Self-dual (near-)extremal ternary codes and combinatorial 2-designs</i>	Zoltán L. Blázsik <i>Hypergraphs are 2-colorable if the 1-intersection graph of their hyperedges is bipartite</i>
12:05	Thomas Honold <i>Maximum weight spectrum codes over finite fields and rings</i>	Safet Penjić <i>On <math>(di)</math>graphs and doubly stochastic matrices</i>
12:30	Marcus Greferath <i>Some thoughts on algebraic coding theory over the Boolean semifield</i>	Draženka Višnjić <i>The distance function on Coxeter like graphs</i>
13:00	LUNCH	
14:30	INVITED TALK Patric R. J. Östergård <i>Counting Steiner triple systems of order 21</i>	
15:30	INVITED TALK Daniel Horsley <i>Minimising the number of comparable sets</i>	

Wednesday, April 10

	SECTION A	SECTION B
9:00	Valentina Pepe <i>On subspaces defining linear sets of maximum rank</i>	Mathieu Dutour Sikirić <i>High dimensional computation of fundamental domains</i>
9:25	Bart De Bruyn <i>Characterising ovoidal cones by their intersection numbers</i>	Tin Zrinski <i>Applications of genetic algorithms for constructions of SRGs and DSRGs</i>
9:50	Dirk Hachenberger <i>Ovoids and primitive normal bases for quartic extensions of Galois fields</i>	Dragan Stevanović <i>Searching for regular, triangle-distinct graphs</i>
10:15	Daniel Hawtin <i>Transitive <math>(q - 1)</math>-fold packings of <math>PG_n(q)</math></i>	Mohammad Ghebleh <i>Reinforcement learning for graphs</i>
10:40	COFFEE	
	SECTION A	SECTION B
11:15	Raúl M. Falcón <i>Heffter arrays over partial loops</i>	Assia Rousseva <i>Constructions of affine <math>t</math>-fold blocking sets</i>
11:40	Andrea Burgess <i>Constructing solutions of the Hamilton-Waterloo Problem using row-sum matrices</i>	Binod Kumar Sahoo <i>Blocking sets of external, tangent and secant lines to an elliptic quadric in <math>PG(3, q)</math></i>
12:05	Tommaso Traetta <i>Near alternating sign matrices with an application</i>	Stefano Lia <i>A note on strong blocking sets and higgledy-piggledy sets of lines</i>
12:30	Marco Antonio Pellegrini <i>Magic partially filled arrays on abelian groups</i>	Arne Botteldoorn <i>The minimal blocking sets of <math>PG(2, 11)</math> with a non-trivial automorphism group</i>
13:00	LUNCH	
14:30	INDIVIDUAL TOUR OF THE CITY WALLS	
16:30	GUIDED CITY TOUR	
19:00	CONFERENCE DINNER – RESTAURANT “POSAT”	



Thursday, April 11

	SECTION A	SECTION B
9:00	E. Şule Yazıcı <i>Non-extendable partial Latin hypercubes and maximal orthogonal partial Latin squares</i>	Mark Pankov <i>Point-line geometries related to binary equidistant codes</i>
9:25	Amela Muratović-Ribić <i>On properties of matrix representation of quadratic planar polynomials over finite fields and its connection with Latin squares</i>	Carl Johan Casselgren <i>Brooks' theorem with forbidden colors</i>
9:50	Christian Elsholtz <i>New lower bounds on caps, and on progression-free sets in <math>\mathbb{F}_p^n</math> and the integers</i>	Kamal Lochan Patra <i>On vertex connectivity of zero-divisor graphs of finite commutative rings</i>
10:15	Péter Pál Pach <i>Line-free sets</i>	Giuliamaria Menara <i>Eulerian magnitude homology</i>
10:40	COFFEE	
	SECTION A	SECTION B
11:15	Robert F. Bailey <i>Distance-regular and strongly regular graphs from affine permutation groups</i>	Denis Krotov <i>Multispreads and the characterization of parameters of additive one-weight codes</i>
11:40	Gábor P. Nagy <i>Switching equivalence of strongly regular polar graphs</i>	
12:05	Andrea Švob <i>On some structures related to intriguing sets of strongly regular graphs</i>	
12:30	Sjanne Zeijlemaker <i>On the existence of small strictly Neumaier graphs</i>	
13:00	LUNCH	
14:30	INVITED TALK Eimear Byrne <i>q-Matroids and related structures</i>	
15:30	INVITED TALK Marco Buratti <i>Heffter spaces and additive designs</i>	

## Friday, April 12

9:00	Silvia M. C. Pagani <i>Ghost hunting</i>
9:25	Jonathan Mannaert <i>Bounds for <math>m</math>-ovoids using combinatorial techniques</i>
9:50	Anton Betten <i>Quartic curves with 63 Kovalevski points</i>
10:15	Patrick J. Browne <i>Erdős–Ko–Rado type problems in root systems</i>
10:40	COFFEE
11:15	Ivan Landjev <i>Constructions of binary codes with two distances</i>
11:40	Konstantin Vorob'ev <i>Binary codes with distances <math>d</math> and <math>d + 2</math></i>
12:05	Giovanni Falcone <i>Goppa codes over hyperelliptic curves</i>
12:30	David Pike <i>2-block-intersection graphs of twofold triple systems</i>
13:00	LUNCH
14:30	<b>INVITED TALK</b> Dean Crnković <i>Constructions of LCD subspace codes</i>
15:30	Doris Dumičić Danilović <i>On Steiner systems <math>S(2, 6, 91)</math></i>
15:55	Vedran Krčadinac <i>Some nice combinatorial objects</i>
16:20	CLOSING

