



**2020 Ural Workshop on Group  
Theory and Combinatorics**  
**Yekaterinburg-Online, Russia,**  
**August 24–30, 2020**

**All the Timetable is scheduled for Yekaterinburg Time**

(London Time = Yekaterinburg Time – 4hrs; CEST Time = Yekaterinburg Time – 3hrs; Moscow Time = Minsk Time = Yekaterinburg Time – 2hrs; Novosibirsk Time = Yekaterinburg Time + 2hrs; Beijing Time = Perth Time = Yekaterinburg Time + 3hrs; Tokyo Time = Yekaterinburg Time + 4hrs).

**Monday, August 24**

10:30-10:50 Connections to Zoom, Welcome talks

10:50 Official Opening of the Workshop

**11:00-15:00 Plenary talks** Chair: Natalia Maslova

11:00-11:50 [Wujie Shi](#), On the widths of finite groups

12:00-12:50 [Ilya Gorshkov](#), On Thompson's conjecture for finite simple groups

13:00-13:50 [Cheryl Praeger](#), Totally 2-closed groups

14:00-14:50 [Alexandre Zalesskii](#), Two projects in the representation theory of finite simple groups

**16:00-18:30 Contributed talks**

*Amethyst room* Chair: Anatoly Kondrat'ev

16:00-16:20 Giudici M., Groups generated by derangements

16:30-16:50 Bors A., Finite groups with an affine map of large order

17:00-17:20 Alavi S., On flag-transitive automorphism groups of 2-designs with  $\gcd(r, \lambda) = 1$

17:30-17:50 Noce M., Ramification structures for quotients of the Grigorchuk groups

18:00-18:20 Vannacci M., Iterated Wreath Products in Product Action and Where They Act

*Malachite room* Chair: Vladislav Kabanov

16:00-16:20 Munemasa A., The regular two-graph on 276 vertices revisited

16:30-16:50 Bailey R.F., On the 486-vertex distance-regular graphs of Koolen-Riebeck and Soicher

17:00-17:20 Akbar A., On the extremal problems concerning some bond incident degree indices of graphs

17:30-17:50 Kunyavskii B., Local-global invariants of groups and Lie algebras

**Tuesday, August 25**

**11:00-14:00 Plenary talks** Chair: Peter Cameron

11:00-11:50 [Mikhail Khachay](#), Efficient approximation of vehicle routing problems in metrics of a fixed doubling dimension

12:00-12:50 [Mikhail \(Misha\) Volkov](#), Computational Complexity of Synchronization under Regular Constraints

13:00-13:50 [Yaokun Wu](#), Digraph homomorphisms with the path-lifting property

**15:00-17:00 Contributed talks**

*Amethyst room* Chair: Sergey Shpectorov

15:00-15:20 Betten A., Group Actions on Invariant Relations

15:30-15:50 Misseldine A., Counting Schur Rings over Cyclic Groups

16:00-16:20 Perepechko A., Automorphisms of affine surfaces and the Thompson group T

16:30-16:50 Jones G.A., A short explicit proof of Greenberg's Theorem

*Malachite room* Chair: Tatsuro Ito

15:00-15:20 Xiong Y., Competition numbers and phylogeny numbers of generalized Hamming graphs with diameter at most three

15:30-15:50 Taranenko A.A., On perfect 2-colorings of Hamming graphs

16:00-16:20 Mogilnykh I., Transitive extended perfect codes from regular subgroups of  $GA(r,2)$

16:30-16:50 Gorkunov E.V., Equitable partitions of a generalized Petersen graph into 3 cells

**Wednesday, August 26**

**11:00-14:00 Plenary talks** Chair: Rosemary Bailey

11:00-11:50 [Tatsuro Ito](#), The Weisfeiler-Leman stabilization revisited from the viewpoint of Terwilliger algebras

12:00-12:50 [Ilia Ponomarenko](#), On the Weisfeiler-Leman dimension of Paley graphs

13:00-13:50 [Vladimir Trofimov](#), Cayley Graphs among Vertex-Symmetric Graphs

**15:00-17:00 Contributed talks**

*Amethyst room* Chair: Maria Grechkoseeva

15:00-15:20 Sotomayor V., Indices not divisible by a given prime in factorised groups

15:30-15:50 Zhang J., Some results related to the open problem proposed by Professor Monakhov

16:00-16:20 Trofimuk A., Finite factorized groups with  $w$ -supersoluble subgroups

16:30-16:50 Pérez-Ramos M., From soluble to  $\pi$ -separable groups

*Malachite room* Chair: Anna Taranenko

15:00-15:20 Makhnev A., On small antipodal graphs of diameter 4

15:30-15:50 Golubyatnikov M.P., On graphs with intersection array  $\{7(n-1), 6(n-2), 4(n-4); 1, 6, 28\}$

16:00-16:20 Tan Y., Thin  $Q$ -polynomial distance-regular graphs

16:30-16:50 Zullo F., A family of linearized polynomials and related linear sets

**Thursday, August 27**

**11:00-14:00 Plenary talks** Chair: Chris Parker

11:00-11:50 [Sergey Shpectorov](#), Generalised Sakuma Theorem

12:00-12:50 [Alexey Staroletov](#), On axial algebras of Jordan type

13:00-13:50 [Alexander \(Sasha\) Ivanov](#), Densely embedded subgraphs in locally projective graphs

**15:00-17:00 Contributed talks**

*Amethyst room* Chair: Vladimir Trofimov

15:00-15:20 Janabi H.A., Subgroups of arbitrary even ordinary depth

15:30-15:50 Ardito C., Donovan's Conjecture and the classification of blocks

16:00-16:20 Monetta C., Complemented subgroups in infinite groups

16:30-16:50 Saha S., Skeleton groups and their isomorphism problem

*Malachite room* Chair: Alexander Makhnev

15:00-15:20 Shukur A., Pseudospectrum Energy of Graphs

15:30-15:50 Csajbók B., Combinatorially defined point sets in finite projective planes

16:00-16:20 Fedoryaeva T., Graphs of diameter 2 and their diametral vertices

16:30-16:50 Elakkiya T., Gregarious Kite Factorization of Tensor Product of Complete Graphs

## Friday, August 28

**11:00-14:00 Plenary talks** Chair: Akihiro Munemasa

11:00-11:50 [Denis Krotov](#), On the parameters of unrestricted completely regular codes

12:00-12:50 [Peter Cameron](#), From de Bruijn graphs to automorphisms of the shift

13:00-13:50 [Rosemary Bailey](#), Latin cubes

**15:00-17:30 Contributed talks**

*Amethyst room* Chair: Alexey Staroletov

15:00-15:20 Maksakov S., On the lattice of  $\omega$ -fibered formations of finite groups

15:30-15:50 Zini G., On the Möbius function of a finite group

16:00-16:20 Ilenko K., On coincidence of Gruenberg-Kegel graphs of non-isomorphic finite groups

16:30-16:50 Minigulov N.A., On finite non-solvable groups whose Gruenberg-Kegel graphs are isomorphic to the paw

17:00-17:20 Zinovieva M.R., Non-existence of sporadic composition factors for finite groups with a condition on their Gruenberg-Kegel graphs

*Malachite room* Chair: Mikhail Khachay

15:00-15:20 Vitalii R., On enumeration of finite topologies

15:30-15:50 Golafshan M., Unipotent dynamics on a torus

16:00-16:20 Zhao D., Complex Clifford group and unitary design

16:30-16:50 Timofeenko A.V., On distributions over classes of conjugate elements and pairs of orders of products of two of them  $(2 \times 2, 2)$ -triples of involutions of some groups

**Saturday, August 29**

**Plenary talks** Chair: Cheryl Praeger

11:00-11:50 [Long Miao](#), On second maximal subgroups of finite groups

12:00-12:50 [Danila Revin](#), Reduction theorems for relatively maximal subgroups

13:00-13:50 [Christopher Parker](#), Subgroups like minimal parabolic subgroups

**15:00-17:00 Contributed talks**

*Amethyst room* Chair: Pablo Spiga

15:00-15:20 Maslova N.V., Classification of maximal subgroups of odd index in finite almost simple groups and some its applications

15:30-15:50 Skuratovskii R.V., The derived series of Sylow 2-subgroups of the alternating groups and minimal generating sets of their subgroups

16:00-16:20 Gao Z., On the set related to the rank of a Sylow  $p$ -subgroup in finite groups

16:30-16:50 Ogiugo M.E., The number of chains of subgroups for certain finite symmetric groups

*Malachite room* Chair: Alexander Ivanov

15:00-15:20 Das S., Computation of various degree-based topological indices of the third type of triangular Hex-derived network of dimension  $n$  by using  $M$ -polynomial

15:30-15:50 Stott L., Trees and cycles

16:00-16:20 Gholaminezhad F., Characterization of some finite  $G$ -graphs

16:30-16:50 Timofeenko A.V., Algebraic and computer models of parquethedra in the processes of describing their combinatorial types and filling the space

**Sunday, August 30**

**11:00-14:00 Plenary talks** Chair: Iliia Ponomarenko

11:00-11:50 [Vladislav Kabanov](#), On strongly Deza graphs

12:00-12:50 [Elena Konstantinova](#), Dual Seidel switchings and integral graphs

13:00-13:50 [Arseny Shur](#), Words separation and positive identities in symmetric groups

**14:30-15:30 Open Problems Session** Chair: Natalia Maslova

15:30 Official Closing of the Workshop