

## Национален семинар по Теория на кодирането

„Професор Стефан Додунеков“

Златоград, 4-7.11.2021 г.

### Научна програма

(хибридно провеждане)

**4.7.2021 г.**

18.00 – 19.00 Заседание на секция “Математически основи на информатиката”

**5.11.2021 г.**

09.00 – 09.20 Silvyu Boumova, Peter Boyvalenkov, **Maya Stoyanova**, Some bounds on covering radius and minimum distance of orthogonal arrays

09.20 – 09.40 **Konstantin Vorob'ev**, On existence of extended perfect codes

09.40 – 10.00 Assia Rousseva, Sascha Kurz, **Ivan Landjev**, The characterization of  $(3 \bmod 5)$ -arcs in  $PG(3,5)$

10.00 – 10.30 кафе-пауза

10.30 – 10.50 Ivan Landjev, **Assia Rousseva**, On binary two-distance codes

10.50 – 11.10 Svetlana Topalova, **Stela Zhelezova**, Transitive deficiency one parallelisms of  $PG(3,5)$

11.10 – 11.30 **Zdenek Pezlar**, Solving diophantine equations by factoring in a number field

11.30 – 11.50 Alexander Barg, **Peter Boyvalenkov**, Maya Stoyanova, Bounds for the sum of distances of spherical sets of small size

### Он-лайн сесия

14.00 – 14.40 **Pascal Piperkov**, Discrete transformations and their applications in coding theory and combinatorics, PhD dissertation project

14.40 – 15.00 Кафе-пауза

15.00 – 15.20 Silvia Boumova, Vesselin Drensky, **Deyan Dzhundrekov**, Martin Kassabov, On the symmetric polynomials in noncommuting variables

15.20 – 15.40 **Lyubomir Borissov**, On some properties of Kloosterman sums

15.40 – 16.00 Lyubomir Borissov, **Yuri Borissov**, On the irrationality of the angles of Kloosterman sums over  $GF(p)$

16.00 – 16.20 **Emil Kolev**, Covering sets of length 4 and football pool problem

17.00 – 18.00 Заседание на колектива по проект КП-06-Н32/2

### 6.11.2021 г.

09.00 – 09.20 **Hristo Kostadinov**, Nikolai Manev, Integer Codes and QAM schemes

09.20 – 09.40 Tsonka Baicheva, **Peter Kazakov**, Miroslav Dimitrov, Some comments about CRC selection for the 5G NR specification

09.40 – 10.00 Peter Boyvalenkov, **Konstantin Delchev**, On an open problem by Ganzhinov and Szollosi

10.00 – 10.30 Кафе-пауза

10.30 – 11.00 Дискусия (модератор **Петър Бойваленков**), Секция МОИ в Научна Програма „Повишаване на изследователския капацитет в областта на математическите науки“

11.00 – 11.20 **Konstantin Delchev**, Представяне на целите и образователните курсове на проекта ISPAS: Paths to Successful Innovation

### Он-лайн сесия

14.00 – 14.20 **Maria Pashinska-Gadzheva**, Piya Bouyukliev, SSE 4.1 optimizations for algorithm for calculating the weight spectrum of linear codes

14.20 – 14.40 **Violeta Ivanova-Rohling**, Niklas Rohling, Guido Burkard, Efficient quantum state tomography under noise

14.40 – 15.00 **Ioanna Petkova**, Maclaurin series for  $\Gamma(z+1)$  and  $(\Gamma(z+1))^{-1}$

15.00 – 15.20 **Веселин Ваврек**, Експериментален desktop компютър за разработки