## International Congress on Mathematics MICOM-2015

## Congress Program

| TIME | Tuesday September 22, 2015 |
| :---: | :---: |
| $\begin{aligned} & \text { 16:00- } \\ & \text { 17:00 } \end{aligned}$ | Registration |
|  | $\begin{aligned} & \hline \text { OPENING CEREMONY } \\ & \text { ROOM } 1 \end{aligned}$ <br> Chair: A. Fellouris, P. Kenderov, A. Lipkovski |
| $\begin{aligned} & \hline \text { 17:00- } \\ & \text { 17:40 } \end{aligned}$ | Welcome Addresses |
| $\begin{aligned} & 17.40- \\ & 18.30 \end{aligned}$ | Plenary Lecture Dr. Antonios Melas Professor, Department of Mathematics, University of Athens "Sharp norm estimates for the dyadic maximal operator and Bellman functions" |
| $\begin{aligned} & 18.30- \\ & 19.00 \end{aligned}$ | Coffee Break |
| $\begin{aligned} & 19.00 \\ & 20.15 \end{aligned}$ | Session dedicated to Christos Papakyriakopoulos and Stefan Dodunekov» <br> Tribute to Christos Papakyriakopoulos <br> - Sofia Lambropoulou, Professor, School of Applied Mathematical and Physical Sciences, National Technical University of Athens <br> - Andriani Nikolakopoulou, University of Ioannina <br> - Stavros Papastavridis, Emeritus Professor Department of Mathematics, University of Athens |
| $\begin{array}{\|c\|} \hline 20.15- \\ 21.00 \end{array}$ | Tribute to Stefan Dodunekov <br> - Petar Kenderov, Professor, Bulgarian Academy of Science |


|  | Wednesday September 23, 2015Morning |  |  |
| :---: | :---: | :---: | :---: |
| TIME | ROOM 1 <br> Chair: K.Kiriaki, V. ManovaErakovic, M. Choban |  | ROOM 2 <br> Chair: I. Mirchev, P. Boyvalenkov |
| $\begin{aligned} & \text { 09:00- } \\ & 09: 20 \end{aligned}$ | On functional equivalence of spaces Mitrofan Choban, Radu Dumbraveanu | $\begin{aligned} & \text { 09:00- } \\ & 09: 30 \end{aligned}$ | Classification of optimal binary cyclically permutable constant weight codes of weight 6 and 7 and small length <br> Tsonka Baicheva, Svetlana Topalova |
| $\begin{array}{\|l\|l\|} \hline 09: 20- \\ 09: 40 \end{array}$ | Some extension theorems of the type of <br> Hahn-Banach for skew symmetric2forms on cycle 2-subspases and kernel 2subspaces <br> Aleksa Malcheski, Vesna ManovaErakovik, Risto Malcheski | $\begin{aligned} & \text { 09:30- } \\ & \text { 10:00 } \end{aligned}$ | On $t$-deletion-correcting codes of length $2 t+3$ Emil Kolev |
| $\begin{aligned} & \text { 09:40- } \\ & \text { 10:00 } \end{aligned}$ | Some properties of C-distribution semigroups and C-ultradistribution semigrous in locally convex spaces <br> Marko Kostić, Stevan Pilipović, Daniel Velinov |  |  |
| $\begin{aligned} & \text { 10:00- } \\ & \mathbf{1 0 . 2 0} \end{aligned}$ | The thermoelastic multiple scattering problem <br> E.Argyropoulos, E. Argyropoulou, K. Kiriaki | $\begin{aligned} & \text { 10:00- } \\ & \text { 10:30 } \end{aligned}$ | Enumeration of the elements of GF( $\left.2^{\wedge} \mathrm{n}\right)$ with related trace and cotrace <br> Youri Borissov |
| $\begin{aligned} & \mathbf{1 0 : 2 0 -} \\ & \mathbf{1 0 . 4 0} \end{aligned}$ | Nonlinear double resonant periodic prob- <br> lems with $\boldsymbol{P}$-Laplacian <br> Sophia Th. Kyritsi, Evgenia H. Papageorgiou | $\begin{aligned} & \mathbf{1 0 : 3 0 -} \\ & \mathbf{1 1 . 0 0} \end{aligned}$ | Linear programming bounds for the mesh ratio of spherical designs Peter Boyvalenkov Peter Dragnev, Douglas Hardin, Edward Saff, Maya Stoyanova |
| $\begin{aligned} & \text { 10.40- } \\ & 11.00 \end{aligned}$ | Matrix theorems and interchange for lattice group-valued series in the filter convergence setting <br> Antonio Boccuto, Xenofon Dimitriou |  |  |
| $\begin{array}{\|l\|} \hline 11: 00 \\ 11: 30 \\ \hline \end{array}$ | Coffee Break |  |  |
| $\begin{aligned} & 11.30- \\ & 11.50 \end{aligned}$ | On the higher order Sylvester Quaternion equatiuon $\mathrm{aq}^{\mathrm{n}}+\mathrm{q}^{\mathrm{n}} \mathrm{b}=\mathrm{c}$ Anargyros Fellouris, Andreas Boukas | $\begin{aligned} & 11.30- \\ & 12.00 \end{aligned}$ | Inequivalent optimal properties of the binary/ternary covering codes <br> Emil Kolev |
| $\begin{aligned} & 11.50- \\ & 12.10 \end{aligned}$ | Some notes on the periodic distributions Nikola Reckoski, Vasko Reckovski, Vesna Manova-Erakovikj |  |  |
| $\begin{aligned} & 12.15- \\ & 13.15 \end{aligned}$ | ROOM 1 <br> Plenary Lecture <br> Emmanouil Georgoulis, <br> Associate Professor, School of Applied Mathematical and Physical Sciences, National Technical University of Athens <br> "Adaptive numerical methods for evolution partial differential equations" |  |  |
|  |  | $\begin{aligned} & 15.00- \\ & 16.00 \end{aligned}$ | Discussion |


|  | Wednesday September 23, 2015Afternoon |  |  |
| :---: | :---: | :---: | :---: |
| TIME | ROOM 1 <br> Chair: N. Papanastasiou, P. Psarrakos, F. Damian |  | ROOM 2 <br> Chair: F. Kalavasis, D. Lappas, <br> D. Kamber |
| $\begin{aligned} & \text { 17:00- } \\ & \text { 17:20 } \end{aligned}$ | Order of Zeta functions for compact even- dimensional symmetric spaces <br> M. Avdispahic, Dz. Gusic and D. Kamber | $\begin{aligned} & \text { 16:00- } \\ & \text { 17:20 } \end{aligned}$ | WORKSHOP <br> Systemic investigations in mathematics education Andreas Moutsios-Rentzos, Fragkiskos Kalavasis |
| $\begin{aligned} & \text { 17:20- } \\ & \text { 17:40 } \end{aligned}$ | Minkowski space-time and hyperbolic geometry J.F. Barrett | $\begin{aligned} & \text { 17:20- } \\ & \text { 17:40 } \end{aligned}$ | When should we teach the Thales' intercept theorem? <br> Aleksandar Lipkovski |
| $\begin{aligned} & \text { 1740- } \\ & \text { 18:00 } \end{aligned}$ | Hyperbolic manifolds built on the geometry of their cusps <br> Florin Damian | $\begin{aligned} & \text { 17:40- } \\ & \text { 18:00 } \end{aligned}$ | On aspects of teaching the "rate of change" in different educational grades by means of current educational software <br> Dimitra Remoundou, Evgenios Avgerinos |
| $\begin{aligned} & \hline \text { 18:00- } \\ & 18.30 \\ & \hline \end{aligned}$ | Coffee Break |  |  |
| $\begin{aligned} & \text { 18:30- } \\ & \text { 18.50 } \end{aligned}$ | The parametric approach to the Architectural problem of projecting higher dimensional hypercubes in $\mathrm{R}^{3}$ its correlation with the tessellation of a plane Ioannis Z. Emiris, Nikos Kourniatis | $\begin{aligned} & \text { 18:30- } \\ & 18.50 \end{aligned}$ | Number Theory in Byzantium according to codex Vindobonensis Phil.Graecus 65 of the $15^{\text {th }}$ cent. The numbers and the numeric position in Byzantium Chalkou Maria |
| $\begin{aligned} & 18.50- \\ & 19.10 \end{aligned}$ | Unwrappings of developable surfaces via closed-form formulas Dimitrios Kodokostas | $\begin{aligned} & 18.50- \\ & 19.10 \end{aligned}$ | Differentiated inctruction in College lessons <br> D. Kamber, Dz. Gusic |
| $\begin{aligned} & 19.10- \\ & 19.30 \end{aligned}$ | Pythagorean triples and their algebraic structure, Milan Živanović, Aleksandar Lipkovski | $\begin{aligned} & \text { 19.10- } \\ & 19.30 \end{aligned}$ | Working with talented young mathematicians in the RCT "Mihajlo Pupin" Pancevo - motive as the basic principle of achievement <br> Dragoljub A. Cucić, Aleksandar S. Nikolić, Savo Ćebić, Mirko Dejić |
| $\begin{aligned} & \text { 19.30- } \\ & 19.50 \end{aligned}$ | Birkhoff-James approximate orthogonality sets <br> Christos Chorianopoulos, Panayiotis J. Psarrakos | $\begin{aligned} & 19.30- \\ & 19.50 \end{aligned}$ | On new instructional practices and theoretical context for teaching the notion of fractions through the theory of multiple representations <br> Avgerinos Evgenios, Vlachou Roza |


|  | Thursday September 24, 2015 <br> Morning |  |  |
| :---: | :---: | :---: | :---: |
| TIME | ROOM 1 <br> Chair: I. Antoniou, P. Vlamos, <br> A. Lipkovski |  | ROOM 2 <br> Chair: T. Baicheva, E. Kolev |
| $\begin{aligned} & 09: 00- \\ & 09: 20 \end{aligned}$ | Heuristic algorithm for HP folding in HP model <br> Nikola Yanev, Peter Milanov, Borislav Yurukov, Ivan Trenchev, Metodi Traykov | $\begin{aligned} & \text { 09:00- } \\ & \text { 09:30 } \end{aligned}$ | Binary isodual codes having an automorphism of odd prime order Stefka Bouyuklieva |
| $\begin{aligned} & 09: 20- \\ & 09: 40 \end{aligned}$ | Steganography based on chaotic torus automorphisms <br> George Makris, Ioannis Antoniou | $\begin{aligned} & \text { 09:30- } \\ & \text { 10:00 } \end{aligned}$ | Simulated annealing type algorithms for packing spherical caps <br> Victor Baytchev, Peter Boyvalenkov, Konstantin Delchev, Yavor Papazov |
| $\begin{aligned} & 09: 40- \\ & 10: 00 \end{aligned}$ | Metaheuristic algorithms for routing problems: from the travelling salesman problem to the inventory routing problem <br> Pantelis Z. Lappas, Manolis N. <br> Kritikos, George D. Ioannou |  |  |
| $\begin{aligned} & 10: 00- \\ & 10.20 \end{aligned}$ | High performance computing on Bioinformatics <br> Anton Stoilov, Borislav Yurukov | $\begin{aligned} & \text { 10:00- } \\ & 10: 30 \end{aligned}$ | On the automorphism group of regular parallelisms of PG(3; 7) <br> Svetlana Topalova, Stela Zhelezova |
| $\begin{aligned} & 10: 20- \\ & 10.40 \end{aligned}$ | Computer graphics's application in Bioinformatics <br> IvanTrenchev, Radoslav Mavrevski, Anton Stoilov, Metodi Traykov, Borislav Yurukov | $\begin{aligned} & 10: 30- \\ & 11.00 \end{aligned}$ | Coding theory and Cryptography teaching in the Bulgarian universities a dedication to Stefan Dodunekov Peter Boyvalenkov, Ivan Mirchev |
| $\begin{aligned} & 10.40- \\ & 11.00 \end{aligned}$ | Minimal surfaces and form finding of architectural designs Jana Lipkovski, Florian Weinmann, Aleksandar Lipkovski |  |  |
| $\begin{aligned} & \text { 11:00 } \\ & \text { 11:30 } \end{aligned}$ | Coffee Break |  |  |
| $\begin{aligned} & 11.30- \\ & 11.50 \end{aligned}$ | The role of bifurcation diagrams for the prediction of the behavior of nonlinear deterministic models in Bioinformatics <br> Panagiotis Vlamos | $\begin{gathered} 11.30- \\ 12.00 \end{gathered}$ | Investigation of "optimal" properties of the contemporary genetic codes according to simple mutation <br> Peter Milanov, Ivan Trenchev, Ivan Mirchev, Borislav Yurukov |
| $\begin{aligned} & 11.50- \\ & 12.10 \end{aligned}$ | Fuzzy Logic and Genetic Algorithms : a multidisciplinary approach Elena Vlamou, Basil Papadopoulos | $\begin{gathered} 12.00- \\ 12.30 \end{gathered}$ | On DNA codes and additive codes over GF(4) <br> Zlatko Varbanov |
| $\begin{aligned} & 12.10- \\ & 12.30 \end{aligned}$ | The supply chain network design problem quantitative approaches to managing operational and disruption risks <br> Pantelis Z. Lappas ${ }_{\mathbf{2}}$ Manolis N. Kritikos | $\begin{aligned} & 12.30- \\ & 12.45 \end{aligned}$ | New quasi-cyclic codes over GF(11) Rumen Daskalov |
|  |  | $\begin{gathered} 12.45- \\ 13.00 \end{gathered}$ | New large ( $\mathrm{n}, \mathrm{r}$ )-arcs in $\mathrm{PG}(2,31)$ Rumen Daskalov, Elena Metodieva |
|  |  | $\begin{gathered} 15.00- \\ 16.00 \end{gathered}$ | Discussion |


|  | Thursday September 24, 2015 <br> Afternoon |  |  |
| :---: | :---: | :---: | :---: |
|  | ROOM 1Chair: N. Alexandris, P. Kenderov, I. Emmanouil |  |  |
| $\begin{aligned} & 17.00- \\ & 18.00 \end{aligned}$ | Plenary Lecture <br> Mladen Savov <br> Associate Professor, Bulgarian Academy of Sciences <br> "The spectral theory of generalized Laguerre semigroups and its applications to positive self-similar Markov processes" |  |  |
| $\begin{aligned} & \text { 18.00- } \\ & \text { 18.30 } \\ & \hline \end{aligned}$ | Coffee Break |  |  |
| TIME | ROOM 1 <br> Chair: N. Alexandris, P. Kenderov, <br> I. Emmanouil |  | ROOM 2 <br> Chair: S. Karanasios, E. Kritikos, |
| $\begin{aligned} & \text { 18:30- } \\ & \text { 18:50 } \end{aligned}$ | Some tail index estimators and their properties <br> Lenka Glavaš, Jelena_Jocković , Pavle Mladenović | $\begin{aligned} & \text { 18:30- } \\ & \text { 18:50 } \end{aligned}$ | Enumerators of ordered colorings of graphs <br> Tanja Stojadinović |
| $\begin{aligned} & \text { 18:50- } \\ & \text { 19:10 } \\ & \hline \end{aligned}$ | On birth - death circuit chains Ganatsiou Chrysoula | $\begin{aligned} & \text { 18:50- } \\ & 19: 20 \end{aligned}$ | Groebner bases and tiling problems Manuela Muzika Dizdarevic |
| $\begin{aligned} & \text { 19.10- } \\ & \text { 19:30 } \end{aligned}$ | The Hausdorff distance as a criterion for the optimal model selection in torqueangle relationships <br> Radoslav Mavrevski, Gergana Koroleova, Nevena Pencheva, Peter Milanov, Borislav Yurukov | $\begin{aligned} & \text { 19.20- } \\ & 19: 40 \end{aligned}$ | Finite rings and their structural graphs Jelena Škorić, Aleksandar Lipkovski |
| $\begin{aligned} & \text { 19:30- } \\ & 19.50 \end{aligned}$ | Determination of the relationship between the docking studies and the biological activity of delta selective enkephalin analogues <br> Fatima Sapundzhi, Tatyana Dzimbova, Nevena Pencheva, Peter Milanov | $\begin{aligned} & 19.40- \\ & 20.00 \end{aligned}$ | Research towards an Institution Independent Model Theory Yiannis Kiouvrekis, Stefaneas Petros |
| 20.30 | Official Dinner <br> Hotel President |  |  |


|  | Friday September 25, 2015 |
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|  | Optional Excursion <br> (Cruise to Poros-Ydra-Aigina) |
|  | Saturday September 26, 2015 |
|  | Departure Day |

