



HELLENIC REPUBLIC
**National and Kapodistrian
University of Athens**
— EST. 1837 —

4th Symposium on “Hypercompositional Algebra-new Developments and Applications”

1st day: Monday, 3.6.2024

9:45 Opening the event

10:15 Christos Massouros and Gerasimos Massouros, “*Remarks and comments on the axioms of hypercompositional structures*”

10:45-11:00 Break

11:00 Spyridon Vossos, Elia Vossos, Christos Massouros “*The Linear Transformations which Unify the Newtonian Physics and Einsteinian Special Relativity and their Combination with FLRW metric for the Study of the Expansion of the Universe*”

11:30 Kaique Roberto “*Hyperalgebras and Abstract Theories of Quadratic Forms from a Functorial Point of View*”

12:00 End of first day sessions

2nd day: Tuesday, 4.6.2024

10:00 Antonios Kalampakas, “*Graph Hyperstructures*”

10:30 Mohammad Hamidi and Florentin Smarandache, “*Valued Fuzzy Superhypergraphs and Applications in Decision Making*”

11:00-11:15 Break

11:15 Morteza Jafarpour, “*Hypergroups arising from the standard particle physics*”

11:45 Hashem Bordbar, “*Categorical approach of Normal injective and Torsionable hypermodules*”

12:15 End of the second day sessions

3rd day: Wednesday, 5.6.2024

10:00 Madeleine Al-Tahan and Šarka Hoškova Mayerova “*Probabilistic polygroup theory*”

10:30 Yasaman Delpak, “*Homological Algebra in Abelian Categories*”

11:00-11:15 Break

11:15 Charalampos Tsitouras “*An algorithmic approach to the creation of hypercompositional structures*”

11:45 Ali Sanjabi, “*Study of Cayley digraphs on polygroups*”

12:15-13:30 Break

13:30 Alessandro Linzi and Nicolo Cangiotti “*Hypercompositional structures and relational monoids*”

14:00 Jan Chvalina, Michal Novák, Bedřich Smetana, “*Actions of Automata Created by Chains of Differential Neurons*”

14:30 End of the third day sessions

4th day: Thursday, 6.6.2024

10:30 Violeta Fotea, “*Isomorphism classes of join spaces associated to chains*”

11:00 Burcu Nişancı Türkmen and Bijan Davvaz “*On τ -supplements in subcategory $_{R,S}hmod$* ”

11:30-12:00 Piotr Błaszkiwicz, “*The class of Krasner quotient hyperfields is not elementary*”

12:00-13:30 Break

13:30 Fakhry Asad, “*Quasi filters and (m,n) -quasi filters on ordered semirings: First results*”

14:00 Anton Nuculović, “*Dependence relations, directed graphs and degree of influence*”

14:30 Engin Kaynar, Burcu Nişancı Türkmen, and Ergül Türkmen, “*A note on hyperrings and hypermodules*”

15:00 End of the fourth day sessions

5th day: Friday, 7.6.2024

10:00 Enrico Talloti, “*A new vulnerability in Elliptic Curve Cryptography*”

10:30 Irina Cristea, “*An overview of HX-groups*”

11:00 Andromeda Sonea- Patraşcu, “*Description of HX-groups using the C++ programming language*”

11.30 Round table and closing remarks