



The Sixth Conference on
Information Theory and Complex Systems
TINKOS 2018
June 18-19, 2018



Mathematical Institute SASA, Kneza Mihaila 36, Beograd

Conference Program

JUNE 18, 2018

OPENING: 16:00-16:10: *Velimir Ilić*

PHILOSOPHY OF COMPLEXITY (Chair: *Velimir Ilić*)

16:10-16:35: **Miloš Milovanović** - *The traditional history in terms of complex systems*

16:35-17:00: **Gordana Medić-Simić** - *Paradigm of complexity as a framework for philosophical synthesis of knowledge management*

17:00-17:25: **Bojan M. Tomić, Milica M. Tomić** - *Juncture between Complex Theory and History & Philosophy of Science*

STRUCTURE & DYNAMICS I (Chair: *Velimir Ilić*)

17:25-17:50: **Andjelka Hedrih, Katica (Stevanovic) Hedrih** - *Centrosome Frequency Affects Energy of Pairs of Oscillating Chromosomes*

17:50-18:15: **Katica (Stevanovic) Hedrih** - *Generalized function of fractional order dissipation and independent fractional type modes of a class of discrete system oscillations*

18:15-19:00: **Open discussion**

JUNE 19, 2018

INFORMATION TRANSMISSION (Chair: *Miodrag Mihaljević*)

10:00-10:25: **Srdan Brkic, Predrag Ivaniš, Bane Vasić** - *Towards Energy-Efficient Reliable On-Chip Communications based on LDPC Codes*

10:25-10:50: **Elsa Dupraz, Dominique Pastor** - *Decentralized Clustering Algorithm over Compressed Data*

10:50-11:15: **Fangping Ye, Elsa Dupraz, Karine Amis** - *Rate-adaptive LDPC Code Construction for Free-Viewpoint Television*

11:15-11:40: **Dragorad Milovanovic, Zoran Bojkovic** - *Optimization of ultra-reliable low-latency communication in 5G mobile networks*

PAUSE: 11:40-13:10

COMPUTATIONAL METHODS (Chair: *Marija Mitrović*)

13:10-13:35: **Raka Jovanovic, Milan Tuba, Stefan Voß** - *Ant Colony Optimization Applied to the Blocks Relocation Problem*

13:35-14:00: **Milica Bogicevic, Milan Merkle** - *An Application of Statistical Depth in Clustering of High-dimensional Acoustic Data*

14:00-14:25: **Marko Petkovic, Predrag Stanimirovic, Vasilios Katsikis** - *Computing the inverse and pseudoinverse of time-varying matrices by the discretization of continuous-time ZNN models*

PAUSE: 14:25-15:00

STRUCTURE & DYNAMICS II (Chair: *Milan Rajković*)

15:00-15:25 : **Bosiljka Tadić** - *Self-organized criticality in social dynamics of knowledge creation*

15:25-15:50 : **Marija Mitrović Dankulov** - *How random are complex networks?*

ENTROPY AND UNCERTAINTY (Chair: *Milan Rajković*)

15:50-16:15 : **Vanja Stepanovic** - *Some fuzzy set (in)equations in case of a complete codomain lattice*

16:15-16:40: **Marija Boricic** - *Entropy and Logic Classification*

16:40-17:05: **Velimir Ilić, Miomir Stanković** - *Generalized entropies based on fractional calculus*

17: 05-17:50: **Open discussion**

CLOSING: 17:50-18:00 : *Velimir Ilić*