

**XXXIX International Conference**  
**PROBLEMS OF DECISION MAKING UNDER UNCERTAINTIES 2024 (PDMU- 2024)**  
**September 9 – 10, 2024**

**On-line\*:** Join Zoom Meeting

<https://us05web.zoom.us/j/89386997140?pwd=b5Rvczv78uu5JEUbCa6bXwbS1KuV7T.1>

Meeting ID: 893 8699 7140

Passcode: 6Jsj20

<b>September 9, 2024 (Monday)</b>		
<b>CET time</b>	<b>OPEN CEREMONY, SECTIONAL SESSION</b>	
	<b>OFF-LINE SESSION</b>	
10 <sup>00</sup> - 10 <sup>20</sup>	Professor <b>O. Nakonechnyi</b> ( <i>Chairman of International Program Committee</i> ), Associate professor <b>M. Sedlačik</b> ( <i>Vice-rector of the University of Defence</i> ), Associate professor <b>J. Odehnal</b> ( <i>Vice-dean of the Faculty of Military Leadership</i> ) Greetings	
10 <sup>20</sup> - 10 <sup>40</sup>	<b>Suraj Z., Grochowalski P., Drygaś P.</b> Hybrid methods for modeling knowledge-based systems using PNeS	
10 <sup>40</sup> - 11 <sup>00</sup>	<b>Martsenyuk V., Soldatkin O., Klos-Witkowska A., Sverstiuk A., Berketa K.</b> Study on the operational stability of a lactate biosensor: modeling, parameter identification and stability evaluation	
11 <sup>00</sup> - 11 <sup>20</sup>	<b>Romanenko V., Miliavskiy Yu., Kantsedal H.</b> Constrained disturbances suppression for multirate impulse processes in cognitive maps of cryptocurrency applications	
11 <sup>20</sup> - 11 <sup>40</sup>	<b>Shakhno S.M., Yarmola H.P.</b> On the Newton-Broyden method for solving systems of the nonlinear equations	
11 <sup>40</sup> - 12 <sup>00</sup>	<b>Benner P., Chuiko S., Nesmelova O.</b> Conditions of solvability of nonlinear boundary value problems unsolved with respect to the derivative	
12 <sup>00</sup> - 12 <sup>20</sup>	<b>Aliyev S., Khalilov V.S.</b> On convergence of Bellman –Harris processes to continuous state space branching process	
12 <sup>20</sup> - 12 <sup>40</sup>	<b>Bratiichuk M., Usar I.</b> Optimal two-threshold strategy for a finite retrial queue	
12 <sup>40</sup> - 13 <sup>00</sup>	<b>Chabanyuk Ya.M., Khimka U.T., Lytvyn A.A., Semenyuk S.A., Chepurko R.A., Stepaniak O.</b> The control problem for random process	
13 <sup>00</sup> - 14 <sup>00</sup>	<b>Lunch</b>	
<b>ON-LINE SESSION</b>		
<b>CET time</b>	<b>Kyiv time</b>	
14 <sup>00</sup> - 14 <sup>15</sup>	15 <sup>00</sup> - 15 <sup>15</sup>	<b>Grochowalski P., Suraj Z., Drygaś P.</b> Petri net system in practice
14 <sup>15</sup> - 14 <sup>30</sup>	15 <sup>15</sup> - 15 <sup>30</sup>	<b>Bagratioti I. O.</b> The impact of value theory on the decision-making in digital education
14 <sup>30</sup> - 14 <sup>45</sup>	15 <sup>30</sup> - 15 <sup>45</sup>	<b>Hnatiienko O., Hnatiienko H.</b> The problem of ensuring the functional stability of organizational systems on ordinary scale under conditions of uncertainty

14 <sup>45</sup> - 15 <sup>00</sup>	15 <sup>45</sup> - 16 <sup>00</sup>	<b>Gadjiev T.S.</b> The apriori estimates and regularity of solutions the nonlinear elliptic equations in generalized Morrey spaces
15 <sup>00</sup> - 15 <sup>10</sup>	16 <sup>00</sup> - 16 <sup>10</sup>	<b>Beyko I.V.</b> Optimization problems in game processes
15 <sup>10</sup> - 15 <sup>20</sup>	16 <sup>10</sup> - 16 <sup>20</sup>	<b>Bomba A.Ya., Turbal Y.V., Turbal M.Y., Smirnov D.A., Turbal B.Y.</b> Forecasting methods based on polynomial extrapolation set analysis
15 <sup>20</sup> - 15 <sup>30</sup>	16 <sup>20</sup> - 16 <sup>30</sup>	<b>Bychkov O., Merkulova K., Pavliukh B.</b> Biometric identification in conditions of uncertainty of the possibility of identification
15 <sup>30</sup> - 15 <sup>40</sup>	16 <sup>30</sup> - 16 <sup>40</sup>	<b>Merkulova K., Spitsyn V.</b> Computer intensive techniques for decision making in different fields
15 <sup>40</sup> - 15 <sup>50</sup>	16 <sup>40</sup> - 16 <sup>50</sup>	<b>Petrivskiy V., Bychkov O.</b> Automated decision making trajectory building system
15 <sup>50</sup> - 16 <sup>00</sup>	16 <sup>50</sup> - 17 <sup>00</sup>	<b>Pokutnyi O., Iskra O.</b> Branching solutions for the interconnected system of Lyapunov equations with control
16 <sup>00</sup> - 16 <sup>10</sup>	17 <sup>00</sup> - 17 <sup>10</sup>	<b>Nakonechnyi O., Zinko P., Hnatyshko M.</b> Estimation methods in observation problems under conditions of uncertainty
16 <sup>10</sup> - 16 <sup>20</sup>	17 <sup>10</sup> - 17 <sup>20</sup>	<b>Boichuk O., Chuiko S., Chuiko V.</b> Inverse problems for nonlinear boundary-value problems with delay
16 <sup>20</sup> - 16 <sup>30</sup>	17 <sup>20</sup> - 17 <sup>30</sup>	<b>Kolesnikov D., Semenova N.</b> Optimization of the investment portfolio
16 <sup>30</sup> - 16 <sup>40</sup>	17 <sup>30</sup> - 17 <sup>40</sup>	<b>Zhukovska O.</b> Making credit decisions based on Bayesian strategies
16 <sup>40</sup> - 16 <sup>50</sup>	17 <sup>40</sup> - 17 <sup>50</sup>	<b>Kotelnikova V., Iksanov O.</b> A law of the iterated logarithm for small counts in Karlin's occupancy scheme
16 <sup>50</sup> - 17 <sup>00</sup>	17 <sup>50</sup> - 18 <sup>00</sup>	<b>Osmak Y.</b> Solving the problem of jobs prioritization under limited resources for the case of a service company
17 <sup>00</sup> - 17 <sup>10</sup>	18 <sup>00</sup> - 18 <sup>10</sup>	<b>Oficerov A.</b> Interconnected system of Riccati operator equations
17 <sup>10</sup> - 17 <sup>20</sup>	18 <sup>10</sup> - 18 <sup>20</sup>	<b>Pogorielov D.</b> Estimation of parameters in economic models with generalizations
17 <sup>20</sup> - 17 <sup>30</sup>	18 <sup>20</sup> - 18 <sup>30</sup>	<b>Ogurtsov M.</b> Method of mutual authentication of UAV swarm elements under uncertainties
17 <sup>30</sup> - 17 <sup>40</sup>	18 <sup>30</sup> - 18 <sup>40</sup>	<b>Drin I., Drin S., Drin Y., Lutskiv M.</b> Non-classical boundary value problem for the heat conduction equation
17 <sup>40</sup> - 17 <sup>50</sup>	18 <sup>40</sup> - 18 <sup>50</sup>	<b>Dzhalladova I., Bartash O.</b> Modeling algorithms for responding to information about corruption in social networks in the business sphere
17 <sup>50</sup> - 18 <sup>00</sup>	18 <sup>50</sup> - 19 <sup>00</sup>	<b>Dzhalladova I., Stefiienko A.</b> Modeling response algorithms to cyber threats in critical infrastructures of the business sector

**September 10, 2024 (Tuesday)**

<b>CET time</b>	<b>SECTIONAL SESSIONS</b>	
	<b>OFF-LINE SESSION</b>	
10 <sup>00</sup> - 10 <sup>20</sup>	<b>Nakonechniy O., Zinko P., Zinko T.</b> Guaranteed posterior estimates of solutions of operator equations	
10 <sup>20</sup> - 10 <sup>40</sup>	<b>Mashchenko S.O.</b> On aggregation of expert assessments for a fuzzy set of decision-makers	
10 <sup>40</sup> - 11 <sup>00</sup>	<b>Polyakov M., Khanin I., Shevchenko G., Bilozubenko V.</b> Intelligent data analysis in the 'knowledge economy'	
11 <sup>00</sup> - 11 <sup>20</sup>	<b>Aliev S. A., Lysetskyi T.B., Yeleyko Ya.I.</b> Stochastic additive functionals of multitype age-dependent branching processes	
11 <sup>20</sup> - 11 <sup>40</sup>	<b>Yarova O.A.</b> The behaviour of multidimensional renewal equation	
11 <sup>40</sup> - 12 <sup>00</sup>	<b>Khasaia Ia, Didmanidze I., Didmanidze D.</b> Decision-making in a fuzzy environment: implications for educational issues	
12 <sup>00</sup> - 12 <sup>20</sup>	<b>Shkilniak O. S., Shkilniak S. S.</b> Sequent deduction systems in transitional modal logics of partial predicates	
12 <sup>20</sup> - 12 <sup>40</sup>	<b>Nikitin A., Tsai H., Nechyporuk S.</b> Approximate maximum likelihood estimation of a threshold Levy process	
12 <sup>40</sup> - 13 <sup>00</sup>	<b>Sedlačík M.</b> Physical Fitness of the Population as a Risk Factor for Ensuring the Defensive Capacity of the Czech Republic	
13 <sup>00</sup> - 14 <sup>00</sup>	<b>Lunch</b>	
<b>CET time</b>	<b>Kyiv time</b>	<b>ON-LINE SESSION</b>
14 <sup>00</sup> - 14 <sup>15</sup>	15 <sup>00</sup> - 15 <sup>15</sup>	<b>Voina O.</b> Some algorithms of vector prognostication
14 <sup>15</sup> - 14 <sup>30</sup>	15 <sup>15</sup> - 15 <sup>30</sup>	<b>Shcherbatyy M.</b> Enhancing warfare strategies through Lanchester-type modeling and optimization
14 <sup>30</sup> - 14 <sup>40</sup>	15 <sup>30</sup> - 15 <sup>40</sup>	<b>Tymofieva N.K.</b> Solving artificial intelligence problems using combinatorics
14 <sup>40</sup> - 14 <sup>50</sup>	15 <sup>40</sup> - 15 <sup>50</sup>	<b>Bakhrushyn V.</b> Validity of evaluation indicators in complex educational systems
14 <sup>50</sup> - 15 <sup>00</sup>	15 <sup>50</sup> - 16 <sup>00</sup>	<b>Bakhrushyn O.</b> The use of intelligent computing for the analysis of educational data
15 <sup>00</sup> - 15 <sup>10</sup>	16 <sup>00</sup> - 16 <sup>10</sup>	<b>Kolba K.T., Prytula M.M.</b> Exact solutions of one nonlinear dynamical system
15 <sup>10</sup> - 15 <sup>20</sup>	16 <sup>10</sup> - 16 <sup>20</sup>	<b>Vavryk R., Sokolovskyy Y.</b> One method for estimating population displacement
15 <sup>20</sup> - 15 <sup>30</sup>	16 <sup>20</sup> - 16 <sup>30</sup>	<b>Peregontsev O.</b> Wireless sensor networks for embedded systems. Overview of embedded systems
15 <sup>30</sup> - 15 <sup>40</sup>	16 <sup>30</sup> - 16 <sup>40</sup>	<b>Dutsko R.</b> Artificial intelligence is a key technology of the fourth industrial revolution
15 <sup>40</sup> - 15 <sup>50</sup>	16 <sup>40</sup> - 16 <sup>50</sup>	<b>Rozora I.V., Melnyk A.</b> Statistical methods for impulse response function estimation in linear systems
15 <sup>50</sup> - 16 <sup>00</sup>	16 <sup>50</sup> - 17 <sup>00</sup>	<b>Koval V.V., Lysenko V.P., Samkov O.V., Vakas V.I., Yanitskyi I.Ya., Piskun O.M., Kulesh O.V.</b>

		Resilience of synchronization means of electrical networks and telecommunication systems under the conditions of the military state
16 <sup>00</sup> - 16 <sup>10</sup>	17 <sup>00</sup> - 17 <sup>10</sup>	<b>Drebot A.</b> Mixture of Hidden Markov Models for data analysis
16 <sup>10</sup> - 16 <sup>20</sup>	17 <sup>10</sup> - 17 <sup>20</sup>	<b>Luzan A.</b> Development and implementation of a large language model assistant for mitigating cognitive biases in group decision-making
16 <sup>20</sup> - 16 <sup>30</sup>	17 <sup>20</sup> - 17 <sup>30</sup>	<b>Khudiakov A.</b> Harnessing the industrial internet of things (IIOT) for advanced hardware-in-the-loop (HIL) simulation and digital twin optimization
16 <sup>30</sup> - 16 <sup>40</sup>	17 <sup>30</sup> - 17 <sup>40</sup>	<b>Tupalo Y.</b> Misuse of artificial intelligence for cyber attacks and counters data attacks in modern information systems
16 <sup>40</sup> - 16 <sup>50</sup>	17 <sup>40</sup> - 17 <sup>50</sup>	<b>Samoilov S.</b> Methods and algorithms of artificial intelligence in mobile medical complexes
16 <sup>50</sup> - 17 <sup>00</sup>	17 <sup>50</sup> - 18 <sup>00</sup>	<b>Sihaiev I.</b> Branching of solutions in the system of kinetic reactions
17 <sup>00</sup> - 17 <sup>10</sup>	18 <sup>00</sup> - 18 <sup>10</sup>	<b>Galkin O., Anikanov O.</b> Google Chrome browser extension for DXtrade trading platform for Forex
17 <sup>10</sup> - 17 <sup>20</sup>	18 <sup>10</sup> - 18 <sup>20</sup>	<b>Pylypenko A.</b> Influence of explainable AI on the architecture of text classification models
17 <sup>20</sup> - 17 <sup>30</sup>	18 <sup>20</sup> - 18 <sup>30</sup>	<b>Stetsenko I., Tretiakov Y., Vergunova I.</b> The problem of aggregation, processing and analysis of internet traffic
17 <sup>30</sup> - 17 <sup>40</sup>	18 <sup>30</sup> - 18 <sup>40</sup>	<b>Vasyliiev O.</b> Modeling the movement of elements with memory in an active environment
17 <sup>40</sup> - 17 <sup>50</sup>	18 <sup>40</sup> - 18 <sup>50</sup>	<b>Fil B.</b> AI as an expert in decision making
17 <sup>50</sup> - 18 <sup>00</sup>	18 <sup>50</sup> - 19 <sup>00</sup>	<b>Cheherst I.R.</b> Machine learning models for decision-making under uncertainty: tracking sanction violations amidst the russian invasion of Ukraine

\*The schedule of presentations may change due to power outages in Ukraine caused by the war