

UNIVERSITATEA DE STAT DIN MOLDOVA

(Denumirea organizației)

APROB:
Rector
ȘAROV Igor, dr. conf. univ.

(semnătura)

„_____” _____ 2023

PROCES-VERBAL

nr.1 din

2023

de recepție finală/punere în funcțiune a rezultatelor obținute în cadrul proiectului de cercetare și inovare cu cifrul 20.80009.5007.13

În baza ordinului nr.234c din „08” septembrie 2023, comisia în componența președintelui comisiei

Prorector pentru activitate științifică <i>(funcția)</i>	Stepanov Georgeta <i>(numele, prenumele)</i>
și membrilor comisiei	
Sef Departament Cercetare și Inovare <i>(funcția)</i>	Prisacaru Veronica <i>(numele, prenumele)</i>
Director Inst Matem <i>(funcția)</i>	Țițchiev Inga <i>(numele, prenumele)</i>
Conducător Proiect <i>(funcția)</i>	Lozovanu Dumitru <i>(numele, prenumele)</i>
Contabil șef adjunct <i>(funcția)</i>	Toderas Angela <i>(numele, prenumele)</i>

a întocmit prezentul proces-verbal de recepție finală/punere în funcțiune a următorului obiect de active materiale și/sau nemateriale (grupe de obiecte):

Nr. d/o	Denumirea obiectului de active materiale și/sau nemateriale (grupe de obiecte)	Numărul de inventar	Data de de recepție finală /punere în funcțiune	Nr. unit.	Valoarea de intrare, mii lei	Durata de funcționare utilă, ani	Suma uzurii anuale, lei
1	2	3	4		5	6	7
	2020						
1. 2020	¹ Articole în reviste științifice	000957		8	465.1		
2. 2020	² Teze în culegeri științifice	000958		7	406.9		
3 2920	³ Manuale, lucrari metodice	000959		1	58.1		
	TOTAL 2020			16	930.1		
	2021						
4. 2021	¹ Monografii	000960		3	104.8		
5. 2021	² Capitole in monografii	000961		1	34.9		
6. 2021	⁶ Articole în reviste științifice	000962		6	209.5		
7. 2021	² Teze în culegeri științifice	000963		19	663.5		
	TOTAL 2021			29	1012.7		

		2022					
8.	¹ Monografii	000964		2	346.3		
9.	² Capitole in monografii	000965		1	173.2		
10.	³ Articolele științifice in reviste:	000966		4	692.6		
	TOTAL 2022			7	1212.1		
		2023					
8.	⁸ Monografii	000967		1	104.4		
9.	⁹ Capitole în monografii	000968					
10.	¹⁰ Articole în reviste științifice	000969		3	313.3		
11.	¹² Teze în culegeri științifice	000970		8	835.4		
	TOTAL 2023			12	1253.1		

2020

¹Articolele in reviste științifice:

- LOZOVANU, D.;** PICKL, S. On the existence of stationary Nash equilibrium in average stochastic games with finite state and action spaces. *Contributions to Game Theory and Management*, St. Petersburg State University, V. 13, ISN2310-2608. 2020, pp 304-323.
- LAZARI, A.;** **LOZOVANU, D.** New algorithms for finding the limiting and differential matrices in Markov chains. *Buletinul AȘM, ser. Matematica, N 1 (92)*, 2020, ISSN1024-7696, pp 75 – 88.
- BUZATU, R.** Binary linear programming approach to graph convex covering problems. *Buletinul AȘM, ser. Matematica, N 3(91)*, 2019, ISSN1024-7696.
- BUZATU, R.** On the computational complexity of optimization convex covering problems of graphs. *Computer Science Journal of Moldova*, Vol.28, Nr.2(83), 2020, ISSN:1561-4042, pp. 187-200.
- CAPCELEA, M.;** **CAPCELEA, T.** Laurent-Padé approximation for locating singularities of meromorphic functions with values given on simple closed contours. *Buletinul AȘM, ser. Matematica, N. 2(93)*, 2020, ISSN1024-7696, pp. 76-87.
- ȘEREMET, V.;** **CREȚU. I.** Three-dimensional influence functions and integration formulas for many boundary value problems within a thermo-elastic half-layer. *Transylvanian Journal of Mathematics and Mechanics*, V. 12, N. 1, ISSN 2067-239X. 2020, pp. 45-58.
- SECRIERU, G.** Analysis of formation of viscous heat conducting gas flows for small perturbations of parameters. *International Research Journal. Nr. 5(74)/2020, v. 5*, Moscow, Russia. ISSN 2411-6467. DOI: 10.31618/ESU.2413-9335.2020.5.74.757, pp. 61-65.

²Teze în culegeri științifice

1. **NAVAL, E.** Evaluarea Egalității de Gen și Abilitării Femeilor. *Conferința Științifică Internațională „Implicații Economice și Sociale ale Pandemiei Covid-19: Analiză, Prognoze și Strategii de Atenuare a Consecințelor”*. Moldova, Chișinău, 23 octombrie 2020. ISBN 978-9975-3305-6-5, 2020, pp.15.
2. **ȘEREMET, V.;** ȘEREMET, D. The Derivation of volume dilatation caused by a unit point heat source. *Proceedings of 12 International Congress on Thermal Stresses (ICTS2019)*, Zhejiang University, Hangzhou, China. 2019, pp. 74.
3. **LOZOVANU, D.;** PICKL, S. Optimal Stationary Strategies for Stochastic Control Problems on Networks with Discounted Costs. *Proceedings of 8th Cologne_Twente Workshop on Graphs and Combinatorial Optimization(CTW-2020)*, IASI (Institute for Systems Analysis and Computer Science, Italy), September, 14-16, 2020, pp. 1-4.
4. **LOZOVANU, D.;** PICKL, S. Pure and Mixed Stationary Strategies for Mean Payoff Games on Networks. *GTM-2020 conference, St. Petersburg University, . October 5-9, 2020*, pp, 42.
5. **MSHKOY, GH.;** MITEV, L. Computational Aspects of Modeling Performance Characteristics for Polling Models with semi-Markov Switching and Priorities. *Proceedings of the 23rd International Conference on "Distributed Computer and Communication Networks (DCCN-2020): "Control, Computation, Communications, Moscow, 14-18 September, 2020*, pp.54-60.
6. **COLESNICOVA, T.;** **NAVAL, E.** Some Approaches to Gender Problem Examination in Republic of Moldova. *Proceedings of the International Symposium: Experience, Knowledge, Contemporary Challenges, 6th Edition „Humanity at a crossroad Between digital Economy and Need for a Paradigm of going back to Nature”*, Editura „ARTIFEX” București, ISBN 978 – 606 – 8716 – 54 – 1. pp. 324-345. 2020.
7. **NAVAL, E.** Optimization Model for Moldova with Multiple Criteria. *Conferința internațională “Dezvoltarea Economico-Socială Durabilă a Euroregiunilor și a Zonelor Transfrontaliere”*, 30 octombrie 2020, Iași, România, V. XXXVII, ISBN 978-606-685-742-0, pp. 343-353.

³Manuale, lucrari metodice

1. **CAPCELEA, M.;** CAPCELEA, T. *Calcul Numeric cu aplicații în MATLAB. Aproximarea funcțiilor – Chișinău: Editura Universul, 2020 – 137p*

2021

¹Monografii

1. **KOLESNIK, A.** *Markov Random Flights*. Taylor & Francis Group, /CRC Press, SBN:9780367564940 (hbk), ISBN: 9781003098133 (ebk) . 406 pp.,2021.
2. **BUZATU, R.** *Covering graphs by convex sets*. CEP Universitatea de Stat din Moldova, 2021, pp.107.
3. **BUZATU, R.;** SUR, N.; ZGUREANU, A. *Convex sets in graphs and boolean functions as subsets of columns*, CEP Universitatea de Stat din Moldova, 2021, pp. 123.

²Capitole in monografii

1. **LOZOVANU, D.;** PICKL, S. An Approach for Determining Stationary Equilibria in a Single-Controller Average Stochastic Game. In: Petrosyan et al eds. *Frontiers of dynamic games,Static and Dynamic Games Theory: Fondation and Applications*, pp. 157-171. Springer, Birkhauser (2021) (Cahapter 8)

³Articolele științifice în reviste:

1. **LOZOVANU, D.; PICKL, S.** On the existence and determining stationary Nash equilibria for switching controller stochastic games. *Contributions to Game Theory and Management*, St. Petersburg State University, V. 14, ISN2310-2608. 2021, pp 284-296.
2. **СТЕЦЮК, П.І.; СОЛОМОН, Д.І.; ГРИГОРАК.** Кратчайшие k -вершинные циклы и пути. *КИБЕРНЕТИКА ТА КОМП'ЮТЕРНІ ТЕХНОЛОГІЇ*. ISSN 2707-4501, 2021, N. 3, С. 85-98.
3. **LAZARI, A.** Algebraic View over Homogeneous Linear Recurrent Processes, *Buletinul AȘM, ser. Matematica.*, Nr.1., ISSN 1024-7696, 2021, , p. 99-109. .
4. **CAPCELEA, M.; CAPCELEA, T.** Localization of singular points of meromorphic functions based on interpolation by rational functions. *Buletinul AȘM, ser. Matematica*, N. 1, 2021, ISSN1024-7696, pp. 76-87.
5. **RUSU, I.; CREȚU. I.** About the necessity to determine the technical condition of buildings of strategic importance in Ungheni district from Republic of Moldova. *Journal of Engineering Study*, Technical University of Moldova. Nr.2, 2021 pp. 103-111.
6. **SECRIERU, G.** Analysis of formation of viscous heat conducting gas flows for small perturbations of parameters. *International Research Journal*. Nr. 5(74)/2020, v. 5, Moscow, Russia. ISSN 2411-6467. DOI: 10.31618/ESU.2413-9335.2020.5.74.757, pp. 61-65.

²Teze în culegeri științifice

1. **LOZOVANU, D.; PICKL, S.** Determining stationary Nash equilibria for average single-controller stochastic games. *Game Theory and Management Conference, GTM-2021*, St. Petersburg State University, June 23 - 25, 2021.
2. **SECRIERU G.** Mathematical modeling of viscous heat-conducting gas flows formation under small perturbations of parameters. 9th International Conference "Distributed Computing and Grid-technologies in Science and Education" (GRID 2021). Dubna, Moscow region, Russia, July 5-9, 2021.
3. **BUZATU, R.** A novel non-statistical methodology for detecting gerrymandering in parallel voting systems, 8ECM, Portorož, Slovenia, p. 621-622. 1,
4. **CAPCELEA, M.; CAPCELEA, T.** Localization of singular points of meromorphic functions based on interpolation by rational functions, *Abstracts of the International Conference Mathematics&IT: Research and Education (MITRE-2021) dedicated to the 75th anniversary of Moldova State University, Chisinau, Republic of Moldova, July 01-03, 2021*, ISBN 978-9975-158-19-0.,20-21.
5. **CREȚU, I; RUSU, I.; The BEJAN, S.** results of the analysis the technical condition of bildings of strategic importance iUngheni disdric from Republic of Moldova, *Conference „Geohazardsin the Central Part of Prut River Basin”*, IGS, 24 June, 2021, pp 45-46.
6. **SECRIERU G.** Approximate analytical approach for representing solutions of a system of one-dimensional Navier-Stokes equations. *Abstracts of the,International Conference "Mathematics & IT: Research and Education (MITRE-2021)"*, Chisinau, Republic of Moldova, July 1-3, ISBN 978-9975-158-19-0, pp. 77-78, 2021.
7. **LOZOVANU, D.** On Determining stationary Nash equilibria for single controller stochastic games. *Abstract of Int.conf. Mathematics and IT, dedicated 75th anniversary of Moldova State University*, July 1-3, p 51-52.,2021.
8. **MITEV, L.** Numerical modeling and results of performance characteristics for DD priority discipline with semi-Markov switching. *Abstracts of the ,International. conference.*

- Mathematics and IT (MITRE 2021), dedicated 75th anniversary of Moldova State University, July 1-3, ISBN 978-9975-158-19-0, p 56-57, 2021.*
9. **NAVAL, E.** Growth Domestic Product Evolution under COVID -19 Persistence. *Abstracts of the International Conference „Mathematics & IT: Research and Education (MITRE – 2021)*, ISBN 978-9975-158-19-0, pp.61-62, Chisinau, July 01-03.
 10. **LAZARI, A.** Algebraic View over Homogeneous Linear Recurrent Processes, *Abstracts of the,International Conference Mathematics & IT: Research and Education (MITRE-2021)*, ISBN 978-9975-158-19-0, p. 48-49.
 11. **SOLOMON, D.** An approach for solving the multi-criteria fractional convex programming problem. *Abstract of Int.conf. Mathematics and IT, dedicated 75th anniversary of Moldova State University, July 1-3*, p 78-79, 2021.
 12. **ZAMORZAEVA, E..** On the complete enumeration of 3-isohedral spherical tilings for group series $n \times n$ *Abstracts of the,International Conference "Mathematics & IT: Research and Education (MITRE-2021)"*, Chisinau, Republic of Moldova, July 1-3, ISBN 978-9975-158-19-0, CEP USM, 2021, p. 88, 2021.

2022

¹Monografii

1. **RATANOV, N., KOLESNIK, A.** *Telegraph processes and option pricing*. Second edition. Springer, 2022, 420pp. ISBN 978-3-662-65826-0. RATANOV, N.
2. **CAPCELEA, M., CAPCELEA, T.** *Aproximarea funcțiilor continue pe porțiuni*. CEP USM, Chișinău, 2022, 110pp. ISBN 978-9975-159-86-9.

²Articolele științifice in reviste

1. **ȘEREMET, V., CREȚU I.** *Thermoelastic influence functions, caused by a unitary point heat source, applied in a quarter of layer*, Transylvanian. Journal of Mathematics and Mechanics, 34-42, 3(15),2022, .ISSN:2067-239X.
2. **LOZOVANU, D., PICKL, S.** Equilibria in pure strategies for a two-player zero-sum average stochastic positional game. *Buletinul AȘM, ser. Matematica.*, Nr.1, p.75-82, 2022, ISSN 1024-7696.
3. **LAZARI, A** Asymptotic behavior of Homogeneous linear recurrent processes and their perturbations., *Buletinul AȘM, ser. Matematica.*, Nr. 2, p. 103-124, 2022 ISSN 1024-7696.
4. **CAPCELEA, M.; CAPCELEA, T.** B-spline approximation of discontinuous functions defined on a closed contour in the complex plane. *Buletinul AȘM, ser. Matematica.*, Nr.2. p.90-102, 2022, ISSN 1024-7696.

³Teze în culegeri științifice

1. **LOZOVANU, D.; PICKL, S.** Stationary Nash equilibria for average-discounted stochastic positional games. Game theory and applications, *GTA-2022*, St. Petersburg State University, June 28–July 1, 2022.
2. **БУЗАТУ, Р.** Моделирование пространственного разделения государства на административно-территориальные единицы. *Материалы 14го международного семинара “Дискретная математика и ее приложения “ имени академика О.Б. Лупанова*, МГУ, Россия, 20-25 июня, 2022 с.3.
3. **CREȚU I., RUSU I.** Some recommendations as a result of examining the technical condition of the buildings of major importance in the Ungheni city, Republic of Moldova.

Abstract of Conference “Integrated Networks for Hazard Risk Management”, 13 July 2022, Gheorghe Asachi Technical University of Iași, România.

4. **SECRIERU G.** Simulation of the interaction of real gas and walls with different initial temperatures. *Abstracts of 29th conference on applied and industrial mathematics (CAIM 2022)*, ISBN 978-9975-81-074-6, pp 92-94. Chisinau, Republic of Moldova, August 25-28, 2022.
5. **BUZATU, R.** Convex covering problem of graphs resulting from some graph operations. *Abstracts of 29th conference on applied and industrial mathematics (CAIM 2022)*), ISBN 978-9975-81-074-6, pp 92-94. Chisinau, Republic of Moldova, August 25-28, 2022-6, p 106.
6. **LOZOVANU, D.** Average-discounted equilibria .for stochastic positional games. *Abstracts of 29th conference on applied and industrial mathematics (CAIM 2022)*), ISBN 978-9975-81-074-6,. Chisinau, Republic of Moldova, August 25-28, , p115-116, 2022.
7. **LAZARI, A.** Perturbed homogeneous linear recurrent systems, *Abstracts of 29th conference on applied and industrial mathematics (CAIM 2022)*), ISBN 978-9975-81-074-6,. Chisinau, Republic of Moldova, August 25-28, , p113-114, 2022.
8. **MITEV, L.** Modelling performance characteristics for Polling models with semi-Markov switching and priorities. *Abstracts of 29th conference on applied and industrial mathematics (CAIM 2022)*), ISBN 978-9975-81-074-6,. Chisinau, Republic of Moldova, August 25-28, , p116, 2022.
7. **SOLOMON, D.** Optimization methods for min-max fractional problems. *Abstracts of 29th conference on applied and industrial mathematics (CAIM 2022)*), ISBN 978-9975-81-074-6,. Chisinau, Republic of Moldova, August 25-28, , p119-120, 2022..
8. **ZAMORZAEVA, E..** On normal 3-isohedral spherical tiling for group series. *Abstracts of 29th conference on applied and industrial mathematics (CAIM 2022)*), ISBN 978-9975-81-074-6,. Chisinau, Republic of Moldova, August 25-28, , p167, 20221.
9. **SECRIERU G.** Analysis of the influence of accommodation on the formation of real gas flows (in Russian). Proceedings of the 14th International scientific and practical conference “Modern scientific research: achievements, innovations and development prospects”. Berlin, Germany, 17-19.07.2022, ISBN 978-3-954753-03-1, pp. 199-205. URL. <https://sci-conf.com.ua/xiv-mizhnarodna-naukovo-praktichna-konferentsiya-modern-scientific-research-achievements-innovations-and-development-prospects-17-19-07-2022-berlin-nimechchina-arhiv/>
10. **BOGATENCOV P., SECRIERU G., DEGTEARIOV N.** Distributed computing infrastructure for complex applications development. Proceedings of the Workshop on Intelligent Information Systems (WIIS2022), October 06-08, 2022, Chisinau, Republic of Moldova, ISBN 978-9975-68-461-3, pp 55-65.
11. **MITEV L.** Aspecte aplicative ale modelelor de așteptare în sistemele informatice avansate. *Abstracts of international conference ”Universities European: Towards a Knowledge-based Society Though Europeanisation and Globalization”*, Chișinău, ULIM, 17 octombrie p 38, 2022.

2023

¹Monografii

1. **LOZOVANU, D., PICKL, S.** Markov decision processes and Stochastic positional games. Springer 2023, 396 p.

²Articolele științifice in reviste

1. **LOZOVANU, D.** On the existence of stationary Nash equilibria for mean payoff games on graphs. *Buletinul AȘM, ser. Matematica.*, Nr.2. 2023, pp 41-51.
2. **LOZOVANU, D., PICKL, S.** Pure and mixed stationary Nash equilibria for dynamic positional games on graphs. Proceedings of 19th Cologne-Twente Workshop on Graphs and Combinatorial Optimization, CTW-2023, Garmisch-Partenkirchen, Germany, June 20-23, 2023, pp 53-56.
3. **CAPCELEA M., CAPCELEA, T.** The B-spline collocation method for solving Fredholm integral equations with a discontinuous right-hand side on a closed contour in the complex plane, *Buletinul AȘM, ser. Matematica.*, Nr.2. 2023, pp. 92- 101.
4. **ȘEREMET V., CREȚU I.** New Green's functions for a thermoelastic unbounded parallelepiped under a point heat source and their applications. *Acta Mechanica*, 2023, N 11, 84-96. (imp. f. 2.2)
5. **LAZARI A.** Zero-order Markov processes with multiple final sequence of states. *Buletinul AȘM, ser. Matematica.*, Nr.2. 2023, pp 110-115.

³Teze în culegeri științifice

1. **LOZOVANU, D., PICKL, S.** Pure and mixed stationary Nash equilibria for dynamic positional games on graphs. *Proceedings of 19th Cologne-Twente Workshop on Graphs and Combinatorial Optimization, CTW-2023, Garmisch-Partenkirchen, Germany, June 20-23, 2023, pp 53-56.*
2. **BUZATU, R.** Exact approximations for solving the convex covering problem of graphs. *Int. Conf. „Mathematics & Information Technologies: Research & Education, MITRE-2023, USM, Chisinau, 2023, p.57.*
3. **CAPCELEA, N., CAPCELEA, T.** Algorithm for approximating integral equation with discontinuous right-hand side. *Int. Conf. „Mathematics & Information Technologies: Research & Education, MITRE-2023, USM, Chisinau, 2023, p.57.*
4. **DAMIAN, F.** Hyperbolic manifold built on the geometries of their cusps or submanifolds. *Int. Conf. „Mathematics & Information Technologies: Research & Education, MITRE-2023, USM, Chisinau, 2023, p.*
5. **LAZARI, A.** Asymptotic behaviour of Markov processes. *Int. Conf. „Mathematics & Information Technologies: Research & Education, MITRE-2023, USM, Chisinau, 2023, pp. 62-63.*
6. **LOZOVANU, D.** Optimal stationary strategies for stochastic positional games. *Int. Conf. „Mathematics & Information Technologies: Research & Education, MITRE-2023, USM, Chisinau, 2023, pp. 65-66.*
7. **SECRIERU, G.** Dynamics of one-dimensional flows in gas-well contact system in the presence of terminal impacts *Int. Conf. „Mathematics & Information Technologies: Research & Education, MITRE-2023, USM, Chisinau, 2023, pp. 70-71.*
8. **ZAMORZAEVA, E.** On discerning Delone classes of 3-izohedral spherical tilings. *Int. Conf. „Mathematics & Information Technologies: Research & Education, MITRE-2023, USM, Chisinau, 2023, pp. 33-34-63.*

O

obiectul de mijloace fixe (grupa de obiecte) menționat(e) anterior a fost elaborat în cadrul proiectului cu cifrul 20.80009.5007.13 implementat de

Universitatea de Stat din Moldova

(denumirea autorității/instituției bugetare)

în baza contractului de finanțare nr. 150 PS din „03” ianuarie 2023.

Caracteristica succintă a obiectului de mijloace fixe (grupele de obiecte) :

Obiectul de mijloace fixe (grupa de obiecte), corespunde (nu corespunde) condițiilor tehnice

(de specificat ce nu corespunde)

și necesită (nu necesită) remediere

(de specificat remediile)

Obiectul de mijloace fixe (grupa de obiecte) a fost pus(ă) în funcțiune în

(denumirea secției, sectorului, serviciului, locului de exploatare)

Concluzia comisiei

Obiectul de mijloace fixe (grupa de obiecte) menționat(ă) în valoare de

se pune în funcțiune.

(în cifre și în litere)

Documentele anexate:

Președintele comisiei

(semnătura)

Stepanov Georgeta

(numele, prenumele)

Membrii comisiei

Prisacaru Veronica

Țițchiev

(numele, prenumele)

(semnătura)

Lozovanu

(numele, prenumele)

(semnătura)

Toderaș Angela

(numele, prenumele)

(semnătura)

Obiectul de mijloace fixe (grupa de obiecte) menționat(ă) a fost transmis(ă) de către conducătorul proiectului **Bejan Iurii**

(numele, prenumele)

(semnătura)

Obiectul de mijloace fixe (grupa de obiecte) menționat(ă) a fost primit(ă) de către

(funcția)

(numele, prenumele)

(semnătura)

Mențiunea contabilității privind înregistrarea intrării obiectului de mijloace fixe (grupele de obiecte):

nr. _____ din „ _____ ” _____ 20____

(denumirea, numărul și data documentului primar)

Contabil-șef

(semnătura)

Cojocaru Liliana

(numele, prenumele)

„ _____ ” _____ 2023