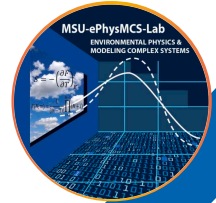


Conferința științifico-practică
„TEHNOLOGII FIZICE AVANSATE
CU APLICAREA UVS ÎN
MONITORIZAREA ȘI MODELAREA
FACTORILOR DE MEDIU”,
Ediția a V-a



Scientific and Practical Conference
„ADVANCED PHYSICAL TECHNOLOGIES
WITH UVS APPLICATION
IN MONITORING AND MODELING
OF ENVIRONMENTAL FACTORS”,
5th edition

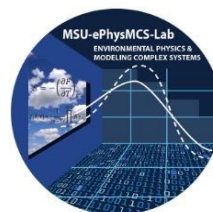


08.11

TehFizUVS-2024



**MOLDOVA STATE UNIVERSITY
INSTITUTE OF APPLIED PHYSICS
Scientific Research Laboratory
"Environmental Physics and Complex
Systems Modeling"**



Conferința științifico-practică
„TEHNOLOGII FIZICE AVANSAȚE CU APLICAREA UVS
ÎN MONITORIZAREA ȘI MODELAREA FACTORILOR DE MEDIU”,
Ediția a V-a

Scientific and Practical Conference
„ADVANCED PHYSICAL TECHNOLOGIES WITH UVS APPLICATION
IN MONITORING AND MODELING OF ENVIRONMENTAL FACTORS”,
5th edition

8 noiembrie / TehFizUVS-2024

**CONFERENCE PROGRAMME
NOVEMBER 8, 2024**

**MOLDOVA STATE UNIVERSITY
ALEXEI MATEEVICI STREET,60, CHISINAU MD-2009
Session will be held in the conference room „Regina Maria”**



The event is organized within the research subprogramme “Advanced physical methods and UAV-based technologies for complex monitoring, evaluation and modeling” (PHYTECH), subprogramme code 011210

Conference Scientific Committee:

Veaceslav Sprincean	Moldova State University, PhD, associate professor, leading scientific researcher, research subprogramme director
Florentin Paladi	Moldova State University, DSc, professor, principal scientific researcher
Ion Tighineanu	President of the Academy of Sciences of Moldova, academician, DSc, professor
Tudor Braniște	Technical University of Moldova, PhD, senior scientific researcher
Sergiu Matveev	Moldova State University, PhD, associate professor, leading scientific researcher
Marianna Savva	Moldova State University, PhD, senior scientific researcher
Ana Bîrsan	Moldova State University, PhD, associate professor, leading scientific researcher
George Culea	“Vasile Alecsandri” University of Bacau, Romania, DSc, professor
Gabriel Puiu	“Vasile Alecsandri” University of Bacau, Romania, PhD, lecturer
Pasquale Daponte	University of Sannio, Benevento, Italy, Dr.h.c., professor
Luca deVitto	University of Sannio, Benevento, Italy, PhD, associate professor
Erika Ottaviano	University of Cassino and Southern Lazio, Italy, PhD, associate professor
Dorin Afanas	“Alexandru cel Bun” Military Academy of the Armed Forces, PhD, associate professor
Vasile Iarmulschi	Institute for Prehistoric Archaeology, Free University of Berlin, Germany, PhD, research scientist
Andrei Asăndulesei	ARHEOINVEST Center, “Alexandru Ioan Cuza” University of Iasi, Romania, PhD, scientific researcher

CONFERENCE ORGANIZING COMMITTEE:

Veaceslav Sprincean	Moldova State University, PhD, associate profesor, leading scientific researcher, research subprogramme director
Marianna Savva	Moldova State University, PhD, senior scientific researcher
Sergiu Matveev	Moldova State University, PhD, associate profesor, leading scientific researcher



Conferința științifico-practică

„TEHNOLOGII FIZICE AVANSATE CU APLICAREA UVS
ÎN MONITORIZAREA ȘI MODELAREA FACTORILOR DE MEDIU”,
Ediția a V-a

Scientific and Practical Conference

„ADVANCED PHYSICAL TECHNOLOGIES WITH UVS APPLICATION
IN MONITORING AND MODELING OF ENVIRONMENTAL FACTORS”,
5th edition

8 noiembrie / TehFizUVS-2024

CONFERENCE PROGRAMME

Welcome&Registration	9:20-10:00
Exhibition	9:20-10:00
Conferences official opening	10:00
Welcome messages of the organizing committee	
Presentation of communications	10:40

WELCOME SPEECH

MODERATOR – Veaceslav SPRINCEAN, Moldova State University,
PhD, associate profesor, leading scientific researcher, research subprogramme director

Friday, November 8, 2024,

Link de acces:

Join Zoom Meeting

<https://us02web.zoom.us/j/82557261807?pwd=IU9tT5A6IGItKutjZFCAMhC702QjVG.1>

Meeting ID: 825 5726 1807

Passcode: 799126

- ✚ Igor ȘAROV, Moldova State University, Rector, Ph.D, full professor
- ✚ Ion TIGHINEANU, President of the Academy of Sciences of Moldova, academician, DSc, professor
- ✚ Vladimir DOLGHII, Moldova State University, Vice-Rector for financial and economic activity and international relations, Ph.D
- ✚ Olga SHIKIMAKA, Moldova State University, Director of Institute of Applied Physics, Ph.D, associate professor
- ✚ Tudor BRANIȘTE, Technical University of Moldova, PhD, senior scientific researcher
- ✚ Liliana DMITROGLO, Moldova State University, Dean, Faculty of Physics and Engineering, Ph.D, associate professor

Keynote speech

Luca de Vito, University of Sannio, Benevento, Italy, PhD, associate professor

Sensors and Measurement for UAV Safety

Presentation of communications

1. **Determining the values of singular integrals with applications in physics and engineering** 10:40-10:55
Alexandr A. BARSUK, Florentin PALADI
 2. **Nanostructurarea electrochimică dirijată a compușilor semiconductori în electrolit prietenos mediului înconjurător** 10:55-11:10
Eduard V. MONAICO¹, Elena I. MONAICO¹, Veaceslav, V. URSAKI^{1,2}, Ion M. TIGINYANU^{1,2}.
¹ Centrul Național de Studiu și Testare a Materialelor, Universitatea Tehnică a Moldovei
²Academia de Științe a Moldovei
 3. **Abordări STEAM ale dronelor în predarea disciplinelor exacte** 11:10-11:25
Dorin AFANAS, Arina BRIGALDA, "Ion Creangă" State Pedagogical University from Chisinau
 4. **Integration of digital technologies into agricultural education in the northern development region of the Republic of Moldova** 11:25-11:50
Ion BODRUG, ACETI & DIH of Moldova
Dorin CEBANU,
National Center of Research and Seeds Production & ACETI
Sergiu PASCARI, ACETI & DIH of Moldova
Mircea PETIC, ACETI & DIH of Moldova
 5. **Tendențe în digitalizarea și automatizarea tehnologiilor agricole** 11:50-12:20
Roman PALANCIUC, PCRR/USAID; Lirong Xiang, Universitatea de Stat din Carolina de Nord, USA
 6. **Dronele în agricultură (demonstrare secvență video)** 12:20-12:30
Vitalie SACARĂ, Administrator, Agrodron Assistance SRL
 7. **Consola AutoPilot pentru conducerea inteligentă a tractoarelor (demonstrare secvență video)** 12:30-12:40
Corneliu GRIGORIEV, Agricos Tech SRL
 8. **SAS by Cropwise - un sistem eficient de gestionare a întreprinderilor agricole (demonstrare secvență video)** 12:40-12:50
Dalia ARSENI, Studioul Sistemelor Agricole SRL
 9. **Robot pentru managementul ierburilor în livezi (demonstrare secvență video)** 12:50-13:00
Alexandr PERJAN, Euroalun SRL
- Break. Discussions at exhibiting companies' stands** 13:00-13:30

- | | | |
|-----|--|-----------------|
| 11. | Filtre și dispozitive de prelevare a probelor de gaze din atmosferă cu nanoclustri de carbon și materiale compozite
Petru LOZOVANU, Veaceslav SPRINCEAN | 13:30-
13:45 |
| 12. | Portable electronic nodes for a sensor network
Tatiana MASLOVA, Adrian BÎRNAZ, Oleg LUPAN
Technical University of Moldova | 13:45-
14:00 |
| 13. | Electro-mechanical sensing properties of Aero-GaN embedded in silicone elastomer
Tudor Braniste ^{1,2} , Tatiana Galatonova ¹ , Vladimir Ciobanu ^{1,2} , Florica Doroftei ² ,
Veaceslav Ursaki ^{1,2,3} , Ion Tiginyanu ^{1,2,3}
¹ National Center for Materials Study and Testing, Technical University of Moldova
² Centre of Advanced Research in Bionanoconjugates and Biopolymers, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
³ Academy of Sciences of Moldova | 14:00-
14:10 |
| 14. | Development of a drone-based object tracking system
Félicien Thierry LOTIN DIPITA LOBE ^{1*} , Damarice Carole BANGA ZE ^{2*} ,
Richard Fabrice EBONGUE EBONGUE ^{2*}
¹ University of Douala, Douala, Cameroon
² University of Yaounde, Yaounde, Cameroon | 14:10-
14:20 |
| 15. | Dimensiunile bunăstării factorului uman în contextul mediului dinamic al societății
Mihaela BALMUȘ-ANDONE | 14:20-
14:30 |
| 16. | Solar cells based on thin CdTe:Mn strutures
Victor SUMAN, Lidia GHIMPU, Tamara POTLOG
Ghitu Institute of Electronic Engineering and Nanotechnologies,
Technical University of Moldova,
Moldova State University | 14:40-
14:50 |
| 17. | Studiul unor procese metabolice cu ajutorul senzorilor la soiurile autohtone de Glycine max
Ana BÎRSAN ¹ , Veaceslav SPRINCEAN ¹ , Mariana SAVVA ¹ , Costel GUȚU ² , Maria IACUBUȚĂ ² , Florentin PALADI ¹
¹ Universitatea de Stat din Moldova
² Centrul Național de Cercetare și Producere a Semințelor | 14:50-
15:00 |
| 18. | Assessment of antioxidant activity in N-hydroxyphthalimide-derived carbon nanostructures
Adina COROABA ¹ , Oana-Elena CARP ¹ , Cornel S. STAN ^{1,2} , Mirela Fernanda ZALTARIOV ¹ , Adina ARVINTE ¹ , Maurusa IGNAT ¹ , Florica DOROFTEI ¹ , Narcisa-Laura MARANGOCI ¹
¹ Centre of Advanced Research in Bionanoconjugates and Biopolymers, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
² Faculty of Chemical Engineering and Environmental Protection, "Gheorghe Asachi" Technical University of Iasi, Romania | 15:00-
15:10 |

- 19. Theoretical studies on N-hydroxyphthalimide-derived carbon dots: Unraveling structure through vibrational analysis** 15:10-15:20
 Dragos-Lucian ISAC, Petru TIRNOVAN, Razvan PUF, Adina COROABA, Narcisa Laura MARANGOCI
 Centre of Advanced Research in Bionanoconjugates and Biopolymers Department, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
- 20. Synthesis and structural analysis of N-hydroxyphthalimide-derived carbon nanostructures** 15:20-15:30
 Narcisa-Laura MARANGOCI¹, Adina COROABA¹, Oana-Elena CARP¹, Cornel S. STAN^{1,2}, Alina NICOLESCU¹, Elena-Laura URUSU¹, Andrei Ioan DASCALU¹, Florica DOROFTEI¹
¹Centre of Advanced Research in Bionanoconjugates and Biopolymers, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
²Faculty of Chemical Engineering and Environmental Protection, "Gheorghe Asachi" Technical University of Iasi, D. Mangeron, Iasi, Romania
- 21. Investigating 3D Characteristics through Stacking Arrangements in Graphene Carbon Dots** 15:40-15:50
 Razvan PUF, Dragos-Lucian ISAC, Adina COROABA, Petru TIRNOVAN, Narcisa Laura MARANGOCI
 Centre of Advanced Research in Bionanoconjugates and Biopolymers Department, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
- 22. Aerial and Terrestrial Remote Sensing Archaeology in the Republic of Moldova. A Triad Research of the Iron Age Sites in the Middle Dniester Basin** 15:50-16:00
 Mihail BĂT, Aurel ZANOCI, Moldova State University
- 23. Degradarea fotocatalitică a tetraciclinei cu ajutorul aeromaterialului din oxid de titan** 16:00-16:10
 Vladimir CIOBANU¹, Tatiana GALATONOVA¹, Tudor BRANISTE¹, Pavel URBÁNEK², Ivo KUŘITKA², Ion TIGINYANU¹
¹Centrul Național de Studiu și Testare a Materialelor, Universitatea Tehnică a Moldovei
²Centre of Polymer Systems, Tomas Bata University in Zlín, tr. Tomase Bati 5678, CZ 760 01 Zlín, Czech Republic
- 24. Exploring social complexity of Cucuteni Chalcolithic Sites. From Northeastern Romania Case study: Dumbrăvița – tarlăua iezer settlement** 16:10-16:10
 Andrei ASĂNDULESEI¹, Radu-Gabriel PÎRNĂU², Felix-Adrian TENCARIU¹
¹"Alexandru Ioan Cuza" University, Iasi, Romania
²Romanian Academy – Iasi Branch, Romania

- | | |
|---|-----------------|
| 25. Particularități ale implementării standardelor de referință în evaluarea conformității calității apei | 16:10
16:20 |
| Liliana DMITROGLO, Virginia GURĂU, Ludmila LECA | |
| 26. Procedeu de inactivare a agenților patogeni sub acțiunea UVC cu aplicare în implantologie | 16:20-
16:30 |
| Ion MUNTEANU ^{1,2} | |
| ¹ Laboratorul de optică cuantică și procese cinetice, Institutul de Fizică Aplicată, Universitatea de Stat din Moldova | |
| ² Catedra de fiziologie a omului și biofizică, Universitatea de Stat de Medicină și Farmacie „Nicolae Testemițeanu” | |
| 27. SKY-HIGH solutions: best practices in UAV technologies for sustainable tourism | 16:30-
16:40 |
| Veronica BULAT | |
| 28. Utilizarea abordării STEAM în cadrul proiectelor de transfer tehnologic | 16:40-
16:50 |
| Elena FLEACĂ | |
| Facultatea de Antreprenariat, Ingineria și Managementul Afacerilor, Universitatea Națională de Știință și Tehnologie POLITEHNICA, București, România | |
| Marian JALENCU, Universitatea de Stat din Moldova | |
| 29. Parcul digital 3D al monumentelor de arhitectură din Chișinău: inovație și valorificarea patrimoniului cultural | 16:50-
17:00 |
| Veaceslav SPRINCEAN, Sergiu PASCARI, Marianna SAVVA, Sergiu MATVEEV | |
| 30. Micro and nanocomposites of gallium oxides and chalcogens as radiation receivers and gas sensors. Receptori de radiație și senzori de gaze | 17:00-
17:00 |
| Veaceslav SPRINCEAN, Mihail CARAMAN | |
| 31. The use of drones in educational processes | 17:00-
17:10 |
| Marianna SAVVA | |
| 32. Analiza ceramologică a fragmentelor de vase din siturile de la Orheiul Vechi și Butuceni-Vest (culturile Poienești-Lucașeuca și Getică) | 17:10-
17:20 |
| Malgorzata DASZKIEWICZ, Freie Universität Berlin, Germany/
ARCHEA, Warszawa, Poland | |
| Octavian MUNTEANU, UPSC “Ion Creangă”,
Vasile IARMULSCHI, Freie Universität Berlin | |
| 33. Semnificația dezvoltării sustenabile a proiectelor inovative de afaceri | 17:20-
17:30 |
| Marian JALENCU | |
| 34. Unmanned Aircraft – concept, facilities, applicability | 17:30
17:40 |
| Anton DANICI | |

- | | |
|---|-----------------|
| 35. Model AI pentru analiza calității apei în râuri și lacuri prin intermediul UAV
Roman BUIMESTRU | 17:40-
17:50 |
| 36. Monitorizarea integrată a mediului folosind UAV-uri și sisteme de alertă în timp real
Alexei LEU | 17:70-
18:00 |
| 37. Ecological stimulation of the germination of some agricultural crops with the help of carbon clusters at lower pressure than the atmospheric one
Alisa MOȘNEAGA, Petru LOZOVANU | 18:00-
18:15 |
| 38. Airborne solid particles pollutants analysis based on the afm and time-resolved fluorescence spectroscopy
Arcadi CHIRITA, Veaceslav SPRINCEAN, Mariana SAVVA, Florentin PALADI | |

Questions and Discussions

Conferința științifico-practică

**„TEHNOLOGII FIZICE AVANSATE CU APLICAREA UVS ÎN
MONITORIZAREA ȘI MODELAREA FACTORILOR DE MEDIU”,**

Ediția a V-a

Scientific and Practical Conference

**„ADVANCED PHYSICAL TECHNOLOGIES WITH UVS APPLICATION
IN MONITORING AND MODELING OF ENVIRONMENTAL FACTORS”,**

5th edition

08 noiembrie /

TehFizUVS-2024