

Dialoguri Doctorale în Fizică Program

10 octombrie

8:45 – 9:00 Primirea participanților

9:00 – 9:15 Cuvânt de deschidere: prof.univ.dr. Daniela DRAGOMAN

SO1: 9:15 – 11:00 Prezentări orale

Moderatori: prof.univ.dr. Ștefan ANTOHE, drd. Ioana DUMITRU

9:15 – 9:30 SO1.1.

[Denis-Răducu Nichita](#), Mihai Dima, Petru Vaideanu, Monica Ionita

The AMOC warms winters and drives summer multidecadal variability in Europe

9:30 – 9:45 SO1.2.

[Miruna-Ioana BELCIU](#), Alin VELEA

Machine learning methods for the prediction and interpretation of the refractive index in Chalcogenide Glasses

9:45 – 10:00 SO1.3.

[Teodora BURLANESCU](#), Ion SMARANDA, Andreea ANDRONE, Cristina FLORICA, Madalina CERCEL, Mirela PARASCHIV, Adelina UDRESCU, Adam LORINCZI, Petru PALADE, Andrei GALATANU, Catalin NEGRILA, Elena MATEI, Monica DINESCU, Radu CERCEL, Mihaela BAIBARAC

Poly(ortho-toluidine)/WS₂ Composites for Supercapacitor Applications

10:00 – 10:15 SO1.4.

[Argentina Teodora NERTAN](#), Mihaela CAIAN

Contribuții la identificarea mecanismelor și cuantificarea răspunsului sistemelor forestiere la schimbările climatice utilizând modele numerice și date satelitare: Impactul schimbărilor de utilizare a terenurilor asupra climei în Europa

10:15 – 10:30 SO1.5.

[Maria-Adela TĂNASE](#), Maria-Luiza STÎNGESCU, Mihai-Adrian SOPRONY, Mihai-Robert ZAMFIR, Nicu -Doinel SCĂRIȘOREANU, Vlad-Andrei ANTOHE

Bridging Thin-Film Electronics and Nanostructured Sensors: Scalable Approaches for Advanced Devices

10:30 – 10:45 SO1.6.

[Maria-Lorena Jinga](#), Anca Aldea, Monica Enculescu, Victor Diculescu, Anna Urbanowicz, Irina Tsvetkova, Bogdan Dragnea

Nanoparticule de aur ca elemente constitutive ale sistemelor viromimetice: de la sinteză la potențiale aplicații biomedicale

10:45 – 11:00 SO1.7.

[Catalina Gabriela MIHALCEA](#), Corneliu GHICA, Adelina STANOIU, Cristian Eugen SIMION, Daniela GHICA, Mariana STEFAN, Simona SOMACESCU, Ioana Dorina VLAICU, Alexandra Corina IACOBAN

Analytical TEM characterization of nanostructured materials for gas sensing

-----**Pauză**-----

SO2: 11:30 – 13:00 Prezentări orale

Moderatori: prof.univ.dr. Alexandru JIPA, drd. Andrei NECȘOIU

11:30 – 11:45 SO2.1.

[Andreea IONESCU BAICAN](#), Decebal IANCU, Radu ANDREI, Mihai STRATICIUC, Mihai RADU, Aurel POPESCU, Mihaela BACALUM

Biological Impact of Proton FLASH Radiotherapy on B16 Melanoma Cells

11:45 – 12:00 SO2.2.

[Dragos MANEA](#), Mihaela Antonina CALIN, Claudia Gabriela CHILOM

Deep Learning-Enhanced Hyperspectral and Optical Coherence Tomography Imaging for Accurate Volume Assessment of Pigmented Skin Lesions

12:00 – 12:15 SO2.3.

[Denis BARBU](#), Mihaela PARVU, Ionel LAZANU

Studies on neutron shielding for underground detectors through FLUKA simulations

12:15 – 12:30 SO2.4.

[Alexandru BEREVOIANU](#), Raluca MĂRGINEAN, Răzvan LICĂ, KeunHwan KIM, Adreea ȘERBAN, Doina STANCIU, Alexandru JIPA

Application of analytical techniques in nuclear forensics investigation

12:30 – 13:00 SO2.5.

C. Alexa, D.C. Costache, I.M. Dinu, I. Duminică, [M.S. Filip](#), G. Majeri

Probing new physics with ultraheavy diquark scalars at the HL-LHC

-----**Pauză de masă**-----

SO3: 14:00 – 15:30 Prezentări orale

Moderatori: conf.univ.dr. Bogdan ANTONESCU, drd. Adela Tănase

14:00 – 14:15 SO3.1.

[Ionel Elisei](#)

Solid State Nuclear Track Detectors (TASTRAK CR-39) used for alpha particles spectroscopy in Radon decay

14:15 – 14:30 SO3.2.

Laura NECUTA, Mihaela CAIAN

Recent Changes in Icing phenomena in the Romanian airspace in freezing rain conditions

14:30 – 14:45 SO3.3.

Andreea-Cătălina POP, Mădălina TRELIA, Dan Alin NEDELCU

Architecture of a distributed optical system for real-time space situational awareness.

14:45 – 15:00 SO3.4.

Cristian Omat, Mirel Birlan, Alin Nedelcu

Real-Time Space Object Detection Using YOLOv12: Enhancing MOROI All-Sky Camera Network Capabilities for Automated SST Operations

15:00 – 15:15 SO3.5.

Stefan DOBRESCU

PLD processed metal oxide thin films for gas sensing

-----Pauză-----

SP1: 15:30 – 16:30 Postere

Moderatori: prof.univ.dr. Daniela DRAGOMAN, drd. Maria-Lorena JINGA

SP1.1.

Andrei-Alexandru. VASILIU, Roxana-Andreea BADEA, Ioana MÎNDRUȚĂ, Irina OANE, Constantin PISTOL, Andrei BARBORICĂ

Development of an Automated Artificial Intelligence-Based Detector for Epileptiform Biomarkers in EEG Signals

SP1.2.

Denisa-Sonia ANDRONIC, Shalmali KHARCE, Hrushikesh MALSHIKARE, Durba SENGUPTA, Kalina HRISTOVA, William C. WIMLEY, Ana-Nicoleta BONDAR

Molecular Dynamics Simulations Of Pore-forming Peptides

SP1.3.

Alina-Maria Halaicu, Kalina Hristova, Ana Nicoleta Bondar

Lipid membrane interactions of the Fibroblast Growth Factor Receptor 3

SP1.4.

Andrei NECSOIU, Diana COCIOABA, Simona BARUTA, Liviu CRACIUN, Radu LEONTE, Maria-Roxana CORNOIU-TUDOROIU, Dana NICULAE, Alexandru JIPA

Production and Purification of Zirconium-89 on the TR-19 Cyclotron at IFIN-HH for Translational Oncology Studies

SP1.5.

Tia POPESCU-BÂRHALĂ, Mihai Stefan BÂRHALĂ

Small field relative dosimetry and its implication in the accuracy of stereotactic treatments

SP1.6.

[Mihai-Ştefan BÂRHALĂ](#), Tia POPESCU-BÂRHALĂ

Optimisation of CT Simulation Scanning Protocols – Advantages in SRS and SBRT Treatments

SP1.7.

[Cercel Madalina](#), Burlanescu Teodora, Smaranda Ion, Androne Andreea, Negrila Catalin, Lorinczi Adam, Baibarac Mihaela

Novel optical and structural properties of composites based on MoS₂-WS₂ heterostructures and poly(ortho-toluidine)

SP1.8.

[Radu CERCEL](#), Andreea ANDRONE, Cristina Stefania FLORICA, Adam LORINCZI, Mihaela BAIBARAC, Adelina UDRESCU

Role of SWCNHs in enhancing photocatalytic activity of anatase TiO₂ for antibiotic removal

SP1.9.

[Cristian RADU](#), Andrei Cristian KUNCSEK, Ioana Dorina VLAICU

Dipolar Interactions Influence on Magnetic Properties of Nanoparticle Systems: Insights from Electron Tomography and Micromagnetic Simulations

SP1.10.

[Andrei STOCHIOIU](#), Ştefan ANTOHE, Ana-Maria BANICI, Gianina POPESCU-PELIN, Cristina CRACIUN, Gabriel SOCOL

Fabrication and characterization of CuBi₂O₄ spinel absorber layer for all-oxide photovoltaic cells

SP1.11.

[Maria-Luiza STÎNGESCU](#), Alina Irina RADU, Cristina CRĂCIUN, Mihai SOPRONYI, Andrei Stochioiu, Adrian RADU, Sorina IFTIMIE, Nicu Doinel SCĂRIŞOREANU, Ştefan ANTOHE

Ratio-Dependent Photovoltaic Properties of Ternary Organic Solar Cells

SP1.12.

[Elena BANCU](#), Alexandru DAN, Florin ANDREI, Valentin ION, Nicu SCARISOREANU, Stefan ANTOHE

Electrical, Optical, and Structural Properties of AZO Thin Films Prepared by Large-Area PLD.

SP1.13.

[Adrian BERCEA](#), Daniela DRAGOMAN

Plasmonic vortices: simulation, fabrication and applications

SP1.14.

[A.F. NEAGOE](#), T.A. DIAC, M.C. RAPORTARU, A. OPREA, R.-M. DRĂGAN, A. NICOLIN-ŹACZEK

Statistical characterisation of a large-scale Romanian corpus for SLM training: Zipf adherence, length–frequency maps, and an Ising-inspired m indicator

-----Pauză-----

17:00 – 18:00 Lectie SciResCareer Centre, University of Bucharest

Virgil BĂRAN, Andreea CROITORU, Mihaela MATAACHE, Codruța C. POPESCU, [Andreea POPESCU-CRUGLIC \(GHINESCU\)](#), Roxana ZUS

SciResCareer: From Pupils, to Students and Physics Researchers – Activities for and together with PhD students

11 octombrie

SO4: 9:00 – 11:00 – Prezentări orale

Moderatori: conf.univ.dr. Claudia CHILOM, drd. Adrian BERCEA

9:00 – 9:15 SO4.1.

[Adrian Badea](#), Mihaela Caian

Changes in instability over Romania in the recent decades

9:15 – 9:30 SO4.2.

[Miruna-Georgiana ICHIM](#), Maria-Emanuela MIHAILOV, Dinu-Vasile ATODIRESEI

The influence of hydrometeorological processes on drifting naval mines in the western part of the Black Sea

9:30 – 9:45 SO4.3.

[Daniela Oprea](#), Mihaela Beregoi, Monica Enculescu, Madădălina M. Barsan, Teodor A. Enache

Interacțiunea culturilor celulare cu dispozitive analitice

9:45 – 10:00 SO4.4.

[Roxana Grigore](#), Roxana Lavric, Elena Matei, Corneliu Ghica, Liviu Nedelcu, Victor Kuncser, Gabriel Schinteie, Ionut Enculescu

Sinteza si caracterizarea nanofirelor de CoNi

10:00 – 10:15 SO4.5.

[Irina ION](#), Iulia GHIU

Asymmetric cloning of steering, quantum discord and coherence

10:15 – 10:30 SO4.6.

[Alina-Alexandra Stoica](#), Aurelian Isar

Environment-assisted generation of quantum correlations in open quantum systems

10:30 – 10:45 SO4.7.

[Bogdan GHERASIM](#), Vlad-Andrei ANTOHE, Ovidiu TOMA, Cristina MIRON, Stefan ANTOHE

Didactic Physics Experiments using Raspberry Pi

10:45 – 11:00 SO4.8.

Radu DOBRE

Estimating the momentum of particles recorded in the NA65/DsTau nuclear emulsion detector

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SO5: 11:30 – 13:00 Prezentări orale

Moderatori: prof.univ.dr. Iulia GHIU, drd. Cosmin-Marian CIPU-DRĂGHICI

11:30 – 11:45 SO5.1.

Irina DUBET, Mihai DIMA

Relații de cauzalitate dintre Antarctica și Groenlanda în timpul Evenimentelor Dansgaard-Oeschger

11:45 – 12:00 SO5.2.

KeunHwan KIM, Raluca MARGINEAN, Valentin BUGAESCU, Mihai-Alexandru FLOREA, Doina STANCIU, Octavian G. DULIU

Case study - 226Ra Timepieces Characterization

12:00 – 12:15 SO5.3.

Denisa Valentina Ivan

Radon în România: Cartografiere și riscuri

12:15 – 12:30 SO5.4.

Paul-Adrian GOGÎȚĂ, Alexandru NICOLIN-ȚACZEK

Total Variation Regularized Differentiation of Non-Smooth Data for Analysis of Complex Systems

12:30 – 12:45 SO5.5.

Alexandru CHIRVASA, Aurelian ISAR

Dynamics of Quantum Correlations based on Rényi-2 Entropy

12:45 – 13:00 SO5.6.

Nicolae-Liviu POTRA

Nanostructuri multistrat de carbon - titan cu proprietăți îmbunătățite: Obținere și caracterizare

-----Pauză de masă-----

SO6: 14:00 – 15:30 Prezentări orale

Moderatori: prof.univ.dr. Ana-Nicoleta BONDAR, drd. Cătălin CONSTANTIN

14:00 – 14:15 SO6.1.

Cristina Stefania FLORICA, Mirela VADUVA, Mihaela BAIBARAC

The influence of functionalization-type between carbon nanotubes (SWNTs) and the conducting polymer PDPA on the energy storage properties of the composite

14:15 – 14:30 SO6.2.

[Andreea Aurelia MIHĂILESCU](#), Minodora Maria IORDACHE, Mihai Teodor DUMITRACHE, Virgil BARAN

ASSESSMENT OF DETECTOR-SPECIFIC CORRECTIONS IN OUTPUT FACTOR MEASUREMENTS FOR CIRCULAR CONES

14:30 – 14:45 SO6.3.

[Madalin CALAMANCIUC](#), Aurelian ISAR

Decoherence of mixed entangled states in non-inertial frames

14:45 – 15:00 SO6.4.

[Mircea DOLINEANU](#), Dragos V. ANGHEL

Regulating electron–phonon heat transfer in a metallic film at sub-Kelvin temperatures through its placement within a dielectric slab

15:00 – 15:15 SO6.5.

[Roxana Maria MOCANU](#), Alexandru JIPA, Florin MACIUC

OCD interactions and processes from sub-GeV scale to TeV scale in proton–proton collisions at $\sqrt{s} = 13$ TeV

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SP2: 15:30 – 16:30 Postere

Moderatori: prof.univ.dr. Virgil BĂRAN, drd. Alina-Maria HALAICU

SP2.1.

[Andreea ANDRONE](#), Mirela VADUVA, Mihaela BAIBARAC

Flame retardant agents based on polyvinylchloride composite with GO

SP2.2.

[Sebastian MICLUTA-CAMPEANU](#)

Component Based Modeling for Relativistic Electrons

SP2.3.

[Ligia-Maria POMĂRJANSCHI](#), Dragoş Iustin PALADE

Synergistic Effects of Collisions and Neoclassical Dynamics on Turbulent Transport in Tokamak Plasmas

SP2.4.

[C. Craciun](#), G. Dinescu, S.D. Stoica, B.M. Mitu, T. Acsente

Analysis of tungsten-containing species in magnetron plasma sustained in mixtures of argon, deuterium, and hydrogen with gaseous impurities

SP2.5.

[Angelica NEAGOIE-GHERGHELAS](#)

Statistical Modeling in Nuclear Measurements through Simulation

SP2.6.

[Catalin CONSTANTIN](#), Marian BĂZĂVAN, Bogdana MITU, Gheorghe DINESCU

Comparative spectral characterization of atmospheric pressure plasmas generated in I-DBD and Y-DBD configurations with molecular gas injection

SP2.7.

[Alexandru-Lucian NASTASIA](#), Mircea DOLINEANU, Dragoș-Victor ANGHEL
Exploring the Toroidal Dipole in Quantum Systems

SP2.8.

[Cosmin-Marian CIPU-DRĂGHICI](#), Virgil BĂRAN
Dipole Polarizability in Neutron-Rich Ni and Sn Isotopes

SP2.9.

[Mihai Marius](#), Radulian Mircea, Craiu Andreea, Craiu Marius, Dinescu Raluca, Marmureanu Alexandru
Seismotectonic Insights from Crustal Earthquakes in the Vrancea Zone

SP2.10.

[Andreea Tolea](#), Bogdan Grecu, Cristian Neagoe
Monitoring ambient noise variations and station performance using data from the Romanian Seismic Network

SP2.11.

[Cristian ZAGĂR](#), Iulia ANTOHE, Vlad-Andrei ANTOHE
Theoretical and Experimental Investigation of LSPR in Nanowire Arrays

SP2.12.

[Maria-Iulia ZAI](#), Ioana LALAU, Marina MANICA, Lucia CHIRIACESCU, Vlad-Andrei ANTOHE, Cristina Constanta GHEORGHIU, Sorina IFTIMIE, Ovidiu TOMA, Mirela Petruta SUCHEA, Ștefan ANTOHE
Morphological and functional evolution of amorphous AlN 2 thin films deposited by RF magnetron sputtering

SP2.13.

[Robert M. Solomon](#), Corneliu I. Oprea, Mihai A. Gîrțu
Size-dependence of Elastic Properties of TiO₂ Nanoclusters – A Density Functional Theory Approach

SP2.14.

[Alexandru S. Pencu](#), Doru S. Delion
Study of Beta Delayed Proton Emissions in ²¹Mg

SP2.15.

[Alexandru CODREANU](#)
Cercetarea instabilității structurilor geologice recente și a impactului asupra vulnerabilității zonelor urbane prin metode de investigare geofizică și modelare integrată. Studiu de caz: Zona Slănic, județul Prahova

16:30 – 17:00 Concluzii și închiderea lucrărilor conferinței
Prof.univ.dr. Daniela DRAGOMAN, prof.univ.dr. Virgil BĂRAN