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| Universitatea Națională de Știință și Tehnologie POLITEHNICA Bucureşti | Sesiunea de Comunicări Ştiinţifice Studenţeşti 2025 |

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## S E C Ţ I U N E A 13 - DF

**FIZICĂ**

*Sesiune în format fizic*

**Sala BN134**

**13.05.2025**

**Ora 13:30**

###### **Comisia de examinare**

Prof. dr. Mona Mihăilescu – președinte

Prof. dr. Doina Luminița Mănăilă-Maximean - membru

CS I Ștefan G. Stanciu - membru

Conf. dr. Mihai Stafe - secretar

1. **Influence of cells malignancy on optical properties and pores formation**

*PhD student*: Raluca Daniela Negoita

*Supervisor*: Prof. M. Mihăilescu

1. **Targeted Neuroregulation: The Role of Brain Mapping and BCI in Modulating Psychological Symptomatology**

*PhD student*: Costin Damasaru

*Supervisors*: Prof. A. Cernian, Prof. M. Mihăilescu

1. **Comparative study of high-performance MPPT algorithms for BIPV applications**

*PhD student*: Ana-Maria Badea

*Supervisor*: Prof. D. L. Mănăilă-Maximean

IN MEMORY OF PROFESSOR LAURENTIU FARA

1. **Analysis of fractal characteristics of the eur/usd markets**

*PhD student*: Lucian Postelnicu

*Supervisor*: Prof. D. L. Mănăilă-Maximean

IN MEMORY OF PROFESSOR VIOREL PAUN

1. **Conical Coil Focusing of Laser-Plasma Accelerated Proton Beam for Applications**

*PhD student*: Laura Anamaria Nalbaru

*Supervisor*: Prof. Gh. Cata-Danil

1. **Development of a beam profiler for spatial distribution measurements at the TANDEM - FN 9MV accelerator at IFIN-HH**

*PhD student*: Alexandru STOICA, Daniel Vasile MOSU

*Supervisor*: Prof. Gh. Cata-Danil

1. **Initial dosimetry results in high - power laser-driven experiments at ELI-NP**

*PhD student*: Mara-Georgiana POPOVICI

*Supervisor*: Prof. Gh. Cata-Danil

1. **Mapping ¹²⁹I in Romanian waters through advanced mass spectrometry techniques**

*PhD student*: Melania Istrati

*Supervisor*: Prof. C. Stan

1. **3D scaffolds made by two photon polymerization for cancer research**

*PhD student*: Alexandra Bran

*Supervisor*: CSI S. G. Stanciu

1. **Bioactive molecules with skin-rejuvenating potential and real-time assessment of therapeutic effects by point-of-care AI-powered microscopy**

*PhD student*: Andrei Botescu

*Supervisor*: CSI S. G. Stanciu

1. **Liquid crystal light beam modulation**

*PhD student*: Stefan Postelnicu

*Supervisor*: Prof. C. Stan

1. **Surface interaction energy in liquid crystal cell**

*PhD student*: Ana Dondera

*Supervisor*: Prof. C. Stan

1. **Application of Supervised Regression Techniques for Aerosol Source Identification at European Monitoring Sites**

*PhD student*: Andrei Dandoci

*Supervisor*: Prof. C. Stan

1. **Image Analysis Security – optimizing the detection algorithm using physical terms to improve biometric authentication**

*PhD student*: Calin Togan

*Supervisor*: Prof. M. Mihăilescu

1. **Passive Analysis of Wireless Signals for Security and Human Activity Monitoring Using Artificial Intelligence**

*PhD student*: Mihai Danila

*Supervisor*: Prof. M. Mihăilescu

1. **Revolutionizing Antimicrobial Susceptibility Testing Through Ultra-Rapid Optical Detection**

*PhD student*: Roxana Totu (fosta Buga)

*Supervisor*: S. G. Stanciu