## ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XVII (XLVIII) 2025, No. 1

Volume Editor: Prof. PhD. habil. Antoaneta ENE

## **SUMMARY**

Papers presented at the 13th Scientific Conference of Doctoral Schools from "Dunarea de Jos" University of Galati (CCSD-UDJG 2025), Galati, June 12-13, 2025 Section 2 - ADVANCED INVESTIGATION METHODS IN ENVIRONMENT AND **BIOHEALTH** Deep Learning for breast ultrasound analysis: a CNN-based tumor segmentation and classification for improved diagnosis ..... 1-6 Iulia-Nela Anghelache Nastase, Simona Moldovanu, Luminita Moraru, Lenuta Pana Signal analysis based on recurrence plots for effective driver behavior detection ..... 7-14 Dănut-Dragos Damian, Simona Moldovanu, Felicia-Anisoara Damian, Michael Frătita, Luminita Using rational functions to improve the results of approximating a function ...... 15-22 Stefanut Ciochina Assessment of heavy metal soil pollution adjacent to the streets of Galati city ..... 23-33 Alina Sion, Antoaneta Ene, Mihalea Timofti, Claudia-Mihaela Mînjîneanu Determination of pollutant elements in agricultural soil using X-Ray Fluorescence Spectrometry ..... 33-42 Alina Sion, Antoaneta Ene, Loredana Nicolau Assessment of lanthanum and cerium pollution in the Shatt al-Arab River ..... 43-50 Raghad Mouhamad