

**TEME PENTRU LUCRĂRILE DE DISERTAȚIE, CICLUL DE STUDII UNIVERSITARE DE MASTERAT,
 DOMENIUL FIZICĂ, SPECIALIZAREA APPLIED PHYSICS/FIZICĂ APLICATĂ, PROMOȚIA 2023
 DURATA STUDIILOR 2 ANI**

Nr. crt.	Titlul temei	Cadru didactic îndrumător
1	Nonlinear phenomena and their mathematical models	Prof. dr. Radu Dan CONSTANTINESCU
2	Symmetries of biophysical systems and attached conservation laws	
3	Methods for solving nonlinear evolutionary equations	
4	Biomaterial media in electrostatic fields	
5	Biomaterials media in magnetostatic fields	
6	Transmission of the electromagnetic signals through material media	
7	Operation Modes in Scanning Probe Microscopy (SPM)	Conf. dr. Gabriela Eugenia IACOBESCU
8	Theoretical Models for Source-field in Bioelectromagnetism	
9	Mean Field Neural Models	
10	Transport Phenomena in Semiconductors	
11	Imaging Proteins Using Atomic Force Microscopy	
12	The Electric Signals Originating in the Eye	Conf. dr. Mariana OSIAC
13	Applications of the scanning electron microscopy	
14	Applications of the Raman spectroscopy	
15	Identifications of the spectral lines in PLD plasma	
16	Excitation temperature of the PLD plasma	
17	Optical properties of transparent films	
18	Detection of the elemental races in a solid samples	
19	Obtaining vanadium oxide films	Conf. dr. Iulian PETRIȘOR
20	Turbulent flows	
21	Incompressible flow	
22	Ideal MHD	
23	Nonlinear coherent structures	

Temele de disertație au fost avizate în Ședința Consiliului Facultății de Științe din data de **zz.II.2022**

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24	Turbulence modeling for CFD	Conf. dr. Silviu-Constantin SĂRARU
25	DNS Simulations	
26	About virial expansion	
27	The study of temperature dependence of electrical resistance	
28	Water quality monitoring	
29	One-dimensional steady-state conduction	
30	DAQ in physics lab	
31	On microwave interaction mechanisms in biological materials	Lect. dr. Ion PĂLĂRIE
32	A percolation model to evaluate the correlation length of dye - nematic liquid crystal interaction	
33	Laser field induced azimuthal anchoring gliding in dye doped nematic liquid crystals	
34	Explanation of the asymmetric response of a dye doped nematic sample in a laser field	
35	Dye doped nematic liquid crystal reorientation in a linear polarized laser field: threshold effect	
36	Effect of smoking on concentration of carboxyhemoglobin for persons with beta-thalassemia minor	
37	Rapid spectrophotometrical estimation of the concentration of porphyrins existing within human urine	
37	3D conformational radiotherapy technique. Application	Lect. dr. Mihaela Tinca UDRIȘTIOIU
39	IMRT technique. Application	
40	VMAT technique. Application	
41	SRS technique. Application	
42	SBRT technique. Application	