| | | Departments | Research fields | Infrastructure | Research centers |
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| **Faculty of Physics**<br>www.phys.uaic.ro<br>Bd. Carol I, 11<br>RO - 700506 Iasi<br><br>  <br><br>**Fax** + 40 232 201150<br>E-mail: mtoma@uaic.ro;<br><br>admphys@uaic.ro | **Director of Scientific Research Departement**<br>Prof. Dumitru Luca | **Department of Physics**<br>www.phys.uaic.ro<br><br>**Head**: Prof.dr. Nicolae Sulitanu<br>Tel. + 40 232 201173<br>Fax. + 40 232 201150<br>E-mail: sulitanu@uaic.ro | **1. Magnetism and Magnetic Materials**<br>Physical (micromagnetic) and phenomenological modeling of magnetization processes. Nanomagnetism, micromagnetism, molecular magnetism.<br>Nanostructured magnetic materials. Multilayers. Nanowires. Preparation, functional properties, applications.<br>Functional nanoscaled magnetic materials for advanced applications.<br>**Contact**: Prof.dr. Alexandru Stancu, Tel.+ 40 232 201175; e-mail: alstancu@uaic.ro; Prof.dr. Violeta Georgescu, Tel. +40 232 201172; e-mail: violeta.georgescu@uaic.ro; Prof.dr. Nicolae Sulitanu, Tel. 40 232 201173; e-mail: sulitanu@uaic.ro<br>**2. Low Temperature Plasma diagnosis and applications**<br>Plasma diagnosis. Micro discharges as excimer radiation sources, barrier-magnetron- and cold cathode discharges.<br>Elementary processes in plasmas. Numerical simulations.<br>Plasma-assisted preparation of nanoscopic clusters and nanostructured films.<br>Plasma-assisted surface modifications.<br>**Contact**: Prof.dr. Gheorghe Popa, Tel. + 40 232 201025; e-mail: ghpopa@uaic.ro, Prof. dr. Dumitru Luca; e-mail: dumitru.luca@uaic.ro; Tel. +40 232 201179.<br>**3. Optics and Spectroscopy**<br>Interaction of the optical radiation with the matter.<br>Optical and spectrometric characterisation of polymers, biomaterials and non-homogeneous plasmas.<br>Magneto-elastic and magneto-optic characterisation of soft magnetic amorphous materials. Applications.<br>**Contact**: Prof.dr.Dana Dorohoi Tel. + 40 232 201182; Fax: + 40 232 201150; e-mail: ddorohoi@uaic.ro; Prof. Dr. Maria Neagu: Tel. +40 232 201199; e-mail: mneagu@uaic.ro<br>**4. Physics of Self-Organized Systems**<br>Self-organisation in plasma devices<br>Self-organised criticality and anomalous transport of matter and energy. Working mechanism of some systems endowed with memory.<br>Contact: Prof.dr.Mircea Sanduloviciu; Tel. + 40 232 201178; e-mail: msandu@uaic.ro; Assoc. Prof. Dan Dimitriu, Tel. +40 232 201183; e-mail: dimitriu@uaic.ro<br>**5. Biophysics and Medical Physics**<br>Characterisation of molecular organisation in biomaterials.<br>Molecular and cellular electrophysiology<br>Effects of plasma and radiolyzed water on biological nanostructures<br>Response of some membrane biostructures to physical and chemical constraints<br>**Contact**: Prof. dr. Nicoleta Dumitrascu, Tel. +40 232 201187; e-mail: nicole@uaic.ro; Prof. dr. Tudor Luchian, Tel. +40 232 1191; e-mail: luchian@uaic.ro; Assoc. Prof. Viorel Melnig; Tel. +40 232 201064; e-mail: vmelnig@uaic.ro; | - NANOMAG laboratory-Nanoscaled Magnetic Materials for Advanced Applications<br>- VSM Magnetometer<br>- AGM Magnetometer<br>- Torsion magnetometer<br>- Cluster unix FMR<br>- High Performance Computing Laboratory<br>- Multimedia and ODL technology laboratory<br>- AFM<br>- Electrochemistry laboratory<br>- X-Ray diffractometer<br>- Mass spectrometers<br>- SIMS & Auger<br>- Ellipsometer<br>- Magnetron devices<br>- DP machine<br>- High resolution, high-speed UV-VIS spectrophotometers<br>- Box-car & lock-in amplifiers<br>- High power excimer laser<br>- Data acquisition systems<br>- Voltage-clamp amplifier<br>- Biophysical noise analyzer<br>- LIF & laser absortion | **AMON- Interdisciplinary research platform.**<br><br>**Center for Applied Research in Physics and Advanced Technologies (CARPATH)** |

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| | | **6. Transport Phenomena in Semiconductors**<br>Studies on electronic transport, optical and photoelectric properties of some semicondicting materials<br>Mechanisms of electrical conduction in organic semiconducting compounds in thin films<br>**Contact**: Prof.dr. Gheorghe Rusu, Tel. + 40 232 201165; e-mail: girusu@uaic.ro; Assoc. Prof. Liviu Leontie, Tel. +40 232 201168; e-mail: lleontie@uaic.ro<br>**7. Dielectric Materials. Polarisation Phenomena in Dielectrics**<br>Structural and functional properties of ferroelectric ceramics<br>Dielectric materials properties in high frequencies domain<br>**Contact**: Prof.dr. Liliana Mitoseriu, Conf.dr. V. Tura<br>Tel. + 40 232 201176; Fax. + 40 232 201175;<br>e-mail: lmtsr@uaic.ro ; vtura@uaic.ro<br>**8. Theoretical Physics**<br>Extended theories of gravitation and other matter fields<br>Gauge theories in elementary particles physics<br>New methods and formalisms in theoretical physics<br>Nonlinear phenomena in complex systems<br>**Contact**: Prof.dr. Ciprian Dariescu<br>Tel. + 40 232 201192; Fax. + 40 232 201175; e-mail: marina@uaic.ro | - Researches on low dimensional magnetic materials for advanced applications<br><br>- Semiconductor thin films laboratory<br><br>- Ferroelectric and dielectric materials laboratory<br><br>- High frequency measurements laboratory<br><br>- VSM Magnetometer<br><br>- AGM Magnetometer<br><br>- Torsion magnetometer<br><br>- Cluster unix FMR<br><br>- High Performance Computing Laboratory<br><br>- Multimedia and ODL technology laboratory | **Research Center on Condensed Matter Physics** |