Name	Faculty	position	Research program title	Research interests	Webpage address
Abdi Mohammad Reza	Physics	Associate Professor	Investigate of Nuclear structure, Study of detectors & detection & dosimetry for nuclear radiation, Study of plasma & Nuclear Fusion	۱- Investigate of Nuclear structure ۲- Study of detectors & detection & dosimetry for nuclear radiation ۳- Study of plasma &nuclear fission	https://sciold.ui.ac.ir/~r.abdi/
Amini Abchuyeh Mohsen	Physics	Assistant professor	Disordered and Complex System	۱- Quantum transport and localization in the presence and absence of disorder ۲- Random Matrix Theory (RMT) and Phase Transition ۳- The physics of ۲D and semi-۲D topological systems	https://sciold.ui.ac.ir/~msn.amini/
Aminollah Vaez	Physics	Assistant Professor	Computational Condensed Matter	۱- Topological phase transition of bulks, nano-layers and mono-layers ۲- The structural, electronic, optical and thermodynamic properties and electron-phonon interaction of bulks and nanostructures with normal and topological phases and the effect of impurities, pressure and temperature on them ۳- Molecular dynamics simulations	https://sciold.ui.ac.ir/~vaez/home.html
Ansarifar Gholam Reza	Physics	Associate Professor	Nuclear Reactors	۱- Optimal design of small Modullar nuclear reactors and control of its parameters ۲- Design of modern and nonlinear control systems for nuclear reactors in the load following operation and estimation of dynamic, neutronics and thermomechanical parameters of the reactor core using nonlinear and intelligent observers ۳- Design and optimization of nuclear reactor fuel using the country's capacities in the production of native-fuel	http://ast.ui.ac.ir/~ghr.ansarifar
Asgarian Mohammad Ali	Physics	Assistant Professor	Nuclear Physics and Engineering	۱- Theoretical and experimental research on nuclear energy production through nuclear fusion reactions in hot plasma environments ۲- Theoretical and experimental research on the use of nuclear fusion reactions in radiotherapy ۳- Research on topics related to quantum field theory	http://ast.ui.ac.ir/~m.aliasgarian
Ayoobian Navid	Physics	Assistant Professor	Nuclear Reactors	۱- Design, simulation, modeling and optimization of nuclear reactors ۲- Simulation, modeling and optimization of nuclear fuel ۳- Simulation and modeling of particle transport (especially neutral particles)	http://ast.ui.ac.ir/~n.ayoobian
Bagheri Harouni Malek	Physics	Associate Professor	Quantum science and technology (Quantum Optics)	۱- Open quantum systems ۲- Hybrid quantum systems composed of plasmonic structures and magnonic subsystems ۳- Quantum thermodynamics and its applications in quantum technologies	https://sciold.ui.ac.ir/~m.bagheri
Bolhasani Ehsan	Physics	Assistant Professor	Theoretical Neuroscience	۱- Information flow in neural networks governed by transient dynamics ۲- Modeling of transient dynamics in neural networks ۳- Synaptic plasticity	https://scholar.google.com/citations?user=SZuw6pAAAAAJ&hl=en&oi=ao
Esteki Mohammad Hossein	Physics	Associate Professor	Developing of Nuclear Reactors Using New Technologies Based on National Opportunities	۱- Designing ۴th generation nuclear reactor ۲- Using modern modular reactor for propulsion purposes ۳- Designing modern heavy water modular reactor	https://engold.ui.ac.ir/~m.esteki/

Fallah Hamidreza	Physics	Professor	Applied Optics	۱- Optical Design for various optical systems ۲- Design, optimization and characterizations of optical thin films for various applications including LEDs, OLEDs and Solar cells ۳- Nano and applied Optics	http://sci.ui.ac.ir/~hfallah
Ghanbari-Adivi Ebrahim	Physics	Professor	Quantum Collision Theory, Quantum Entanglement Generation, May-Body Localization	۱- Theory of quantum collisions ۲- Quantum entanglement generation ۳- Substitute replacement	https://sciold.ui.ac.ir/~ghanbari/
Ghavami Sabouri Saeed	Physics	Associate Professor	Lasers	۱- Experimental production of special laser beams and beam shaping ۲- Design, simulation and fabrication of high power frequency conversion lasers ۳- Design and manufacture of laser-based measuring systems	https://sci.ui.ac.ir/~ghavami/home.html
Hajimahmoodzadeh Morteza	Physics	Associate professor	Applied Optics	۱- Thin Films Layers, Anti reflecting layers, Mirrors, Polarizer ۲- OLED (organic light-emitting diode) ۳- Surface Plasmonic	http://sci.ui.ac.ir/~m.hajimahmoodzadeh
Hassanzadeh Smaeyl	Physics	Professsor	Atmospheric Sciences and Physical Oceanography	۱- Atmospheric Sciences including Air pollution, measurements of Nano air particles ۲- Numerical Modelling using Large eddy simulations ۳- Physical Oceanography including investigation the physical parameters of ocean and its relation to to the climate changes, also using large eddy modelling for ocean circulation	https://sciold.ui.ac.ir/~shz/
Hosseinibalam Fahimeh	Physics	Associate Professor	Aerosols optical particle counter, Optical Sensors and Ocean-Atmosphere Dynamics	۱- Simulation and implementation of optical fiber acoustical sensors in environmental sciences and ۲- Simulation of aerosols motion in optical funnel andit's application in optical particle counter and sizing (OPC, OPS) ۳- Ocean Atmosphere Dynamics, Wave and Tidal Energy and Air Sea Intercation	https://sciold.ui.ac.ir/~fhb/
Jabbari Iraj	Physics	Assistant proffesor	Design and optimization of medical imaging and radiation therapy systems	۱- Design, simulation and construction of medical imaging and radiation therapy systems ۲- Medical image reconstruction and processing ۳- Treatment planning and dose calculation in radiation therapy	https://astold.ui.ac.ir/~i_jabbari/
Jalali Asadabadi Saeid	Physics	Associate Professor	Density Functional Theory	۱- Thermoelectric Renewable Energy Resources, Mechanoelectric Generators ۲- Topological Analyses of Condensed Matter Materials ۳- Applications of Machine Learning and Artificial Intelligence in Density Functional Theory	https://sciold.ui.ac.ir/~sjalali
Khorsandi Alireza	Physics	Professor	On the possibility of laser sensor fabrication based on lase spectroscopy	۱- Studying and simulating FBG and PC structures for selective spectroscopy and fabricating of laser sensors in the infrared region ۲- Thermal effects and investigation their impact on the quality and efficiency of nonlinear radiations ۳- Investigate the possibility of using alternative methods for Mode-locking and Q-switching to produce very short laser pulses with pre-designed application features	https://sciold.ui.ac.ir/~a.khorsandi
Lohrasebi Amir	Physics	Associate Professor	Nano/Micro Fluids	۱- Water in Nano/Micro scale ۲- Simulation of Nano/Micro Filters ۳- Modeling of Bio-Cells Dynamics	http://sci.ui.ac.ir/~a.lohrasebi

Mahdifar Ali	Physics	Associate Professor	Quantum Optics and Quantum Information	۱-Geometrical Structure of Coherent States and Their Applications ۲- Quantum optics of PT-symmetric optical systems and Hybrid Magnonic Systems ۳- Quantum metrology and Quantum Sensing	https://sciold.ui.ac.ir/~a.mahdifar/
Malekmohammad Mohammad	Physics	Associate Professor	Photonic and laser	۱- Photonic and microphotonic ۲- Optic ۳- Laser application	https://sciold.ui.ac.ir/~m.malekmohammad/
Mohammadi Hamidreza	Physics	Assistant Professor	Quantum Information and Computation Theory and Experimental Quantum Optics	۱- Study of quantum correlations in various physical systems such as quantum optics and solid state systems ۲- Theoretical study of factors affecting the performance improvement of Quantum devices ۳- Experimental setup implementation of Quantum devices	https://sciold.ui.ac.ir/~hr.mohammadi/
Mozafari Morteza	Physice	Associate Professor	Experimental investigation on the physical properties of materials	۱-Investigation of physical properties of materials ۲-Investigation of electromagnetic properties of materials ۳-Investigation of optical and megneto-optical properties of materials	http://sci.ui.ac.ir/~mozafarisci.ui.ac.ir/~mozafari
Naderi Mohammad Hossein	Physics	Professor	Quantum Optics	۱- Nonlinear hybrid optomechanical systems assisted with ultracold atoms or Bose-Einstein condensate ۲- Ultrasensitive quantum sensing and measurement in optomechanical systems ۳- Quantum state engineering in Cavity QED and atom optic systems	https://sciold.ui.ac.ir/~mhnaderi/
Nasri Nasrabadi Mehdi	Physics	Associate Professor	Nuclear Physics, Applications of Radiation, Fusion and Plasma Physics	۱- Studying of nuclear structure and various factors affecting the nuclear level density and also studying exotic nuclei ۲- Investigating the effect of various structural defects of materials against high energy radiation using molecular dynamics method ۳- ICP & IECF	http://ast.ui.ac.ir/~mnnasrabadi
Nourbakhsh Zahra	Physics	Associate Professor	Computational Condensed Matter	۱- Topological phase transition of bulks, nano-layers and mono-layers ۲- The structural, electronic, optical and thermodynamic properties and electron-phonon interaction of bulks and nanostructures with normal and topological phases and the effect of impurities, pressure and temperature on them ۳- Molecular dynamics simulations	https://sciold.ui.ac.ir/~z.nourbakhsh/home.html
Rashedi Gholamreza	Physics	Associate professor	Transport properties of strongly correlated systems (condenssed matter)	۱- Transport properties of systems including superconductivity-ferromagnet and normal metal specially system including unconventional superconductors ۲- Calculation of band gap and band structure oftwo-dimensional sytems like graphene-silicene-phosphorene ۳- Transport properites and quantum entanglemnet in two dimensional graphen-likesystems	https://sciold.ui.ac.ir/~rashedi/

Rezaee Khadijeh	Physics	Associate Professor	Detection and Measurement of Radiation, Applied Radiation	۱- Synthesize and characterizate of Gd۲O۲S doped with rare earth elements as a radiation detectors ۲- Synthesize nanomaterials for dosimetry and shielding applications ۳- Using mont carlo cods for detectors, dosimeters and shield	https://astold.ui.ac.ir/~kh.rezaee/
Roknizadeh Rasoul	Physics	Professor	Quantum Science and Technology	۱- Theoretical Foundations of Quantum Mechanics ۲- Quantum States Engineering in Quantum Optical Systems ۳- Designing of Quantum Optical System for Metrology and High precision Sensing	https://sciold.ui.ac.ir/~rokni/
Rozatian Sayid Amir Hassan	Physics	Associate Professor	Characterization of Nanostructures by Synchrotron Radiation	۱- Characterization of Dyes used in the Textiles from Historical Salt mine of Chehrabad in Zanjan-Iran ۲- Using SR-FTIR, XRD and XFAS techniques to study ancient materials (Glass, Bronze, Ceramics, Paper and Ink) ۳- Characterization of Smectic and Nematic Liquid Crystals using Synchrotron Infrared Microspectroscopy	https://sciold.ui.ac.ir/~arozatian/
Shirani Bidabadi Babak	Physics	Assistant Professor	Applications of Radiation	۱- Nuclear Analysis ۲- Radiation damage of electronic components ۳- High dose-rate proton therapy	https://ast.ui.ac.ir/b.shirani
Soltani Morteza	Physics	Associate Professor	Investigation of Anderson impurity in quantum properties of one and two dimensional systems	۱- Investigation of transport properties of two dimensional system and its application in thermoelectric systems ۲- Calculation of local integral of motion in MBL system ۳- Calculation of transport and quantum correlation in Heisenberg chain	https://sciold.ui.ac.ir/~mo.soltani/
Talebi Razieh	Physics	Assistant proffesor	Investigating optical properties of fabricated plasmonic nanostructures and thin films on glass substrate	۱- Creating metamaterials by laser irradiation of silver-silver chloride thin films ۲- Strong plasmon-exciton coupling ۳- Making silver/sodium ion exchange glasses	https://sciold.ui.ac.ir/~r.talebi/
Yavari Heshmatollah	Physics	Professor	Superconductivity and superfluidity- Bose Eisenstein condensation-Ultra cold Bose and Fermi gases, Symmetry breaking and phase transition, Nontrivial phases	۱- Strongle correlated many body systems ۲- Emergence, phase transition and Bose Einstein condensation in many body stsbtems ۳- Transport properties of strongly correlated systems (equilibrium and noneqilibrium)	https://sci.ui.ac.ir/~h.yavary/