



*III International Scientific School-Conference on
Acoustophysics Named after Academician
A.R. Mkrtchyan*

*June 24 – 28, 2024
Yerevan – Sevan, Armenia*

Programme



Date	Morning	Afternoon	Evening
June 24	Registration (9:00 to 10:00)		
	Opening Conference and School Greeting Speech 10:00		
	Lectures	Oral Session	
June 25	Lectures	Oral Session	Poster Section
June 26	(11:00) Trip to Sevan Excursion		
June 27	Oral Sessions	Oral Sessions	Round Table and Conference Dinner
June 28	Oral Sessions	(12:00) Trip to Yerevan,	

June 24 Monday			
09:30	Registration		
10:00	Opening School, Greeting Speech		
10:30	<i>V.R. Kocharyan</i> Director of IAPP NAS RA Invited guests	Opening remarks	30 min
11:00	<i>S.B. Dabagov</i>	Surface Channeling of Beams in Capillary Waveguides	30 min
11:30	<i>A.A. Saharian</i>	2D Materials, Emergent Gravity and Quantum Field Theory	30 min
12:00	Coffee break		
<i>Chairman: Prof. A.A. Saharian</i>			
12:20	<i>P.V. Karataev</i>	John Adams Institute – a Platform for Scientific Research and Education	30 min
12:50	<i>A.H. Melikyan</i>	Chemical Bonding in Molecules	30 min
13:20	<i>A. M. Petrosyan</i>	New Salts of Amino Acids, Discovery of a New Class of Salts and Their Possible Applications	30 min
13:50	Lunch		
<i>Chairman: Prof. S. Dabagov</i>			
15:00	<i>A.Zh. Khachatryan</i>	Some remarks on the inverse diffraction problem	30 min
15:30	<i>E.Yu. Kidanova</i>	Measurements of Coherent Radiation at the AREAL Accelerator	20 min
15:50	<i>A.Zh. Khachatryan</i>	The Plane Wave Diffraction on a Flat Area from Randomly Orientated Rectangular Slits	20 min
16:10	<i>V.V. Ghazaryan</i>	Hexahalogenobismuthates of Glycine	20 min
16:30	<i>G.S. Tonoyan</i>	Halogenoplumbates of Glycine and β-Alanine	20 min
16:50	Round Table Discussions		

June 25 Tuesday

Chairman: Prof. P.V. Karataev

10:00	<i>H.A. Sarkisyan</i>	Exactly Solvable Model of a Pair-Interacting Hole Gas in Lens-Shape GeSi QDs	30 min
10:30	<i>L.Sh. Grigoryan</i>	Features of Radiation of Charged Particles in Dielectric Loaded Cylindrical Waveguides	30 min
11:00	<i>K.G. Trouni</i>	The Phenomenon of Interference Absorption of X-ray Radiation in a Perfect and Distorted Crystal Lattice	30 min

11:30 Coffee break

Chairman: Prof. K.G. Trouni

11:50	<i>D.V. Roshchupkin</i>	Ferroelectric Lithium Niobate-Tantalate Crystal LiNb_{0.93}Ta_{0.07}O₃	30 min
12:20	<i>D.V. Roshchupkin</i>	X-ray Diffraction by Surface Acoustic Waves	20 min
12:40	<i>S.G. Gevorkian</i>	Application of Light Pressure in the Rheology of Biopolymers	30 min

13:10 Lunch

Chairman: Prof. A.H. Mkrtchyan

14:30	<i>S.A. Mkhitarian</i>	On Existing Methods and Devices Suitable for Continuous Analog Visible Recording of Seismic and Acoustic Signals	30 min
15:00	<i>A.S. Abrahamyan</i>	Nikola Tesla and Acoustoplasma	20 min
15:20	<i>A.I. Soghomonyan</i>	Features of change in dielectric constant in crystals in presence of an alternating electric field	20 min
15:40	<i>S.G. Arutunian</i>	Footprint of Lienard-Wiechert Field on a One-dimensional Manifold	20 min

16:00 Coffee break

16:00	Poster Session	
1.	<i>A. L. Margaryan</i>	Fraunhofer Diffraction by a Slit into a Medium with Wave Irreversibility
2.	<i>Yu.M. Cherepennikov</i>	GEANT4 Simulation of the Application of a SINUS-320 High-Current Repetitively Pulsed Electron Accelerator for the Sterilization of Cocoa Powder
3.	<i>V.V. Ghazaryan</i>	Tetrahalogenobismuthates of Dimethylglycine
4.	<i>Z.H. Mkrtchyan</i>	Why the Physics and the Physicists Should Have the Target Role in Diplomacy
5.	<i>A.I. Soghomonyan</i>	On the Energy Spectrum of an Electron in a Crystal and the Determination of Chemical Markings and Electrode Concentrations
6.	<i>H.H. Samsonyan</i>	X-ray Study of Structural Changes in the Liquid-Crystal System AOT-Mixed Solvent Under the Influence of Dimethyl Sulfoxide (DMSO)
7.	<i>T.S. Musayelyan</i>	The Role of 3D Software's in Developing Models for Innovative Solutions and Sci-Tech Results' Commercialization
8.	<i>A.A. Danghyan</i>	Determination of Energy Band Gap of A-Liio3 Doped with Amino Acids
9.	<i>P. Glumac</i>	Estimation of Cyclotron-Based 161Tb Production Yields Via 160Gd(D,N)161Tb Nuclear Reaction
10.	<i>M.V. Shevelev</i>	Measuring the Number of the Internal Betatron Beam Passes through a thin target
11.	<i>M.V. Shevelev</i>	Measuring the Period of a Multilayer X-ray Mirror Using X-ray Cherenkov Radiation
12.	<i>T.R. Muradyan</i>	Experimental Investigation of Mie Scattering
13.	<i>N.M. Manukyan</i>	Modeling And Measurement of Structural Changes in Vibrating Wire Using High Stresses and Electrical Pulse Embrittlement Procedure
14.	<i>E.Yu. Kidanova</i>	Investigation Of Parametric X-ray Radiation from Highly Oriented Pyrolytic Graphite with Different Mosaicities
15.	<i>E.Yu. Kidanova</i>	An Experimental Setup for Accurately Measuring the Thickness of Foil
16.	<i>H.R. Drmeyan</i>	X-ray Interferometric Shift Fringes and Monocrystal "Sandwich"
17.	<i>Ye.H. Hayrapetyan</i>	High-Precision Light Rangefinder with Phase Modulation Accumulation
18.	<i>L.S. Bezhanova</i>	Dielectric Response of a Liquid Crystal System to The External Alternating Electric Field
19.	<i>I.R. Bagdasaryan</i>	Some Significant Acoustic Aspects in Building Materials
20.	<i>A.S. Abrahamyan</i>	Features of Experiments with Acoustoplasma
21.	<i>A.M. Sedrakyan</i>	Applied Physics Problem, the Solution of Which is Related to the Idea of Solving Differential Equations

June 26 Wednesday			
Excursion to Bjni, Tsaghkuny and Sevan (10:00)			
June 27 Thursday			
10:00	<i>Opening in Sevan, Greeting Speech</i>		20 min
<i>Chairman: Prof. S.B. Dabagov</i>			
10:20	<i>T.M. Bakhshiyanyan</i>	Proton-induced Reaction Cross Section Measurements Via Stacked-foil Target Technique	20 min
10:40	<i>D.K. Pugachev</i>	The Results of Preliminary Tests of the ECR Ion Source of the Accelerator Complex DC-140	20 min
11:00	<i>V.I. Lisov</i>	Axial Injection System of U400R Cyclotron of FLNR JINR	20 min
11:20	<i>A.M. Mamyan</i>	X-ray Spectrometer with Controlled Characteristics	20 min
11:40	<i>H. Badalyan</i>	Probing the Effect of 15.5 MeV Proton Beam on the Optical and Structural Properties of Graphene Layers	20 min
12:00	Coffee break		
<i>Chairman: Prof. P.V. Karataev</i>			
12:20	<i>A.A. Nahapetyan</i>	Interband Transitions in the Strongly Oblate Asymmetric Ellipsoidal Quantum Dot under the Influence of the Axial Magnetic Field	20 min
12:40	<i>M.K. Manvelyan</i>	Intraband Absorption in CdSe Nanoplatelets	20 min
13:00	<i>Zh. Adamyan</i>	Tripartite Entanglement in Mixed-Spin Triangle Trimer	20 min
13:20	<i>A.V. Shahverdyan</i>	Computer Simulation of CT Experiment Results	20 min
13:40	Lunch		
15:00	<i>R. Yu. Chilingaryan</i>	Application of the Catastrophe Theory in Experimental Studies	20 min
15:20	<i>R.A. Karapetyan</i>	HB13 Giant Galaxy and Distribution of Extra Galactic Sources Around it	20 min

15:40	<i>T.H. Sargsyan</i>	Investigations of Giant Radio Galaxy B2 1141+37	20 min
16:00	<i>N.S. Gharibyan</i>	The Study of Novel Crystal L-Arg·2SSA·H₂O	20 min
16:20	<i>A.P. Antonyan</i>	On the Necessity of Designing and Implementing a Territorial Anti-seismic Public Early Warning and Preliminary Protection System	20 min

June 28 Friday

Chairman: Prof. H. A. Sarkisyan

10:00	<i>A.V. Sargsyan</i>	Features of Spectral-Angular Distribution of Radiation by a Train of Electron Bunches Passing through the Centre of a Ball	20 min
10:20	<i>G.V. Margaryan</i>	Features of Radiation Generated by a Charged Particle Flying Through a Ball of Dispersive Material	20 min
10:40	<i>G.V. Mirzoyan</i>	PIN-photodiodes Array for Beam Diagnostics in Accelerators	20 min
11:00	<i>Sh.S. Panyan</i>	The Importance of Citations and the Essential Science Indicators	20 min
11:20	<i>A.A. Margaryan</i>	Features of the Operation of an Acoustoplasma Magnetron	20 min
11:40	Closing ceremony and “Best presentation award”		

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