### **Session Program**

15-21 Jun 2025



# **ASRP 2025 - Alpic School for Radiation Physics**

# **Poster Session P17**

Yerevan IAPP NAS RA - Yerevan, Armenia

### Tuesday 17 June

### 16:30 Poster Session P17 Session | Location: IAPP NAS RA - Yerevan 16:30-16:31 Studies Of X-Ray Multi-Beam Diffraction Moiré Patterns Speaker Hrayr Margaryan 16:31-16:32 Discovery of a symmetric (L-Orn(H)-H-L-OrnH) (3+)-cation in the structure of (L-Orn(H)-H-L-OrnH)(I3)3•4H2O Speaker Milena Petrosyan 16:32-16:33 Double-Slit X-ray Dynamical Diffraction in the Transmitted and Diffracted Beams Speaker Minas Balyan 16:33-16:34 X-ray Diffraction Image of a Low-Angle Twist Boundary Speaker Levon Levonyan 16:34-16:35 Nonlinear Photoelasticity of Crystals and Related Effects of Electromagnetic and Acoustic Wave Interaction Speaker Seryozha Movsisyan 16:35-16:36 Fraunhofer Diffraction at a Slit between Two Isotropic Media under Oblique **Incidence of a Plane Electromagnetic Wave** Speaker Astghik Margaryan 16:36-16:37 Cornerstones of the Development, Transformation, And Commercialization of **Radiation Technologies Across Targeted Spectra** Speaker Zara MKrtchyan 16:37-16:38 Development of new acoustophysical methods for deposition of thin films Speaker Arthur Margaryan 16:38-16:39 On the Possibility of Using Physical Methods for Bioindication of Radiation Injury Severity in Organisms

Speaker

Hrachya Sargsyan

### 16:39-16:40

### On the Influence of Ionizing Radiation on Erythrocyte Membrane Permeability and the Diffusion Mechanisms of Cell Hydration

### Speaker

Hrachya Sargsyan

### 16:40-16:41 Radiation Technologies in Environmental Science

Speakers

Hasmik Panyan, Zara Mkrtchyan

### 16:41-16:42

### Experimental Investigation of the Influence of a Temperature Gradient on Asymmetric Reflection of X-rays in Quartz Single Crystals

Speaker

Arkadi Soghomonyan

### **16:42-16:43** High-Precision Electro-Optical Light Rangefinder

Speaker

Stepan Petrosyan

### 16:43-16:44

### Single-Sided Ohmic Contact Engineering and Leakage Current Reduction in GaAs p-i-n Photodiodes

Speaker

Vardan Harutyunyan

### 16:44-16:45

### Study of the Dielectric Properties of Nematic Liquid Crystals during the Nematic-Isotropic Liquid Phase Transition

**Speaker** Liana Bezhanova

### 16:45-16:46

Study of nonlinear optical crystals: L-nitroarginine perchlorate and L-nitroarginine tetrafluoroborate

**Speaker** Ruzan Sukiasyan

#### 16:46-16:47

# Some problems associated with the standardization of the light curve of type 1a supernovae

#### Speaker

Abraham Mahtessian

### 16:47-16:48

On Equivalence of Metal-Dielectric and Single-Layer Dielectric Waveguides in the Problems of Accelerator Physics

**Speaker** Mikayel Ivanyan

### 16:48-16:49

## GaN Thin Films via Plasma Focus: A Study of Deposition Shots and Annealing Effects

Speaker Laya Anjo

### 16:49-16:50

### Manufacturing of large aperture parabolic mirrors using additive technologies for focusing microwave radiation

### Speaker

Mikhail Shevelev

### 16:50-16:51

### **Determining Electron Binding Energy of Valence Shell Using Polarization Radiation**

#### Speaker

Mikhail Shevelev

### 16:51-16:52

A study of the characteristics of a pulsed accelerator-driven BNCT neutron source based on lithium targets

**Speaker** Yury Cherepennikov

### 16:52-16:53

### Mimicking Biological Soft and Bone Tissues with Commercial 3D-Printed Polymers in Custom Imaging Phantoms

Speaker

Yury Cherepennikov

### 16:53-16:54

### X-ray Cherenkov Radiation from Relativistic Charge in a Periodic Multilayer Structure

Speaker

Mikhail Shevelev

### 16:54-16:55

### X-ray Diffraction in Different Crystal Cuts Under a Temperature Gradient

Speaker

Robert Mirzoyan

### 16:55-16:56 New Method of Creating Pressure in Brazing Ceramics to Metal

### Speaker

Artur Azizov

### 16:56-16:57

# High Resolution Wavelength-Dispersive Spectrometry Based on X-ray Diffraction on Bent Crystals

Speaker

Karapet Trouni

### 16:57-16:58

Features of Radiation from Relativistic Electrons Flying Through a Cylindrical Target

### Speaker

Hayk Harutyunyan

### 16:58-16:59

The Reciprocity of Illumination and Observation Points in Diffraction Patterns with Maxima

#### Speaker

Ashot Khachatrian

### 16:59-17:00

Design Optimization of Proton Radiation Shielding Using PHITS-Based Monte Carlo Simulation with Multilayer Concrete-Iron Barriers

### Speaker

Abdelmoneim Sulieman

### 17:00-17:01

Artificial neural network (NNT) vs multilinear regression models to predict Naturally Occurring radioactivity (NORM) in gold mining area in eastern Sudan

**Speaker** Abdelmoneim Sulieman

### 17:01-17:02

Monte Carlo Evaluation of Secondary Neutron and Gamma Contributions in Proton Therapy Using GEANT4/GATE

Speaker

Nissren Tamam

### 17:02-17:03

Occupational Radiation Exposure in Saudi Arabia's Nuclear Medicine Departments: Assessment, Challenges, and Safety Insights

**Speaker** Mohammed Alkhorayef

### 17:03-17:04

Electrical Strength Of Thin Dielectric Layers And Their Presentation By The Density Of The Probability Distribution Function

**Speaker** Armen Sedrakyan

### 17:04-17:05

The Study of Single Crystals  $\alpha$ -LiIO3 Doped with L-Alanine and Glycine

### Speaker

Astghik Danghyan

### 17:05-17:06

Establishing National Diagnostic Reference Levels (NDRLs) for Nuclear Medicine in Saudi Arabia

Speaker Fahad Alothaim

### 17:06-17:07

Thermal reduction and fractal analysis of liquid phase exfoliated graphene

### Speaker

Harutyun Vasilyan

### 17:07-17:08

Proton Irradiation Effects on Infrared and Structural Properties of Graphene for **Space Applications** 

### Speaker

Tigran Ohanyan

### 17:08-17:09

Possibility of Visualization of Phase-Contrast X-ray Image of Polymer Substances Using an X-ray Interferometer

### Speaker

Vardan Margaryan

### 17:09-17:10

### Mechanisms Of Influence Of Ionizing Radiation On Phospholipide Bilayer

Speaker

Ani Avetisyan

### 17:10-17:11

Theoretical and Experimental Study of L-Arginine Sulfates and L-Nitroarginine Sulfosalicylate Crystals

#### Speaker

Nelli Gharibyan

### 17:11-17:12

### **Optimization of Calibration Factors and Recovery Coefficients for Lu-177 SPECT/CT** Using Phantoms

Speaker Mohammed Alkhorayef

### 17:12-17:13

On similarity of X-ray diffraction patterns formed in a 3-block defocused interferometer and a bi-crystal system of narrow air gap

Speaker Samvel Mkhitaryan

### 17:13-17:14

### Evaluation of Pediatric Radiation Effective dose and cancer risks during Computed **Tomography examinations**

Speaker

Mohammed Albogami

### 17:14-17:15 Alternative Methods of Obtaining a Medical Radioisotope 111In

Speaker Tiruhi Bakhshiyan

### 17:15-17:16 Making Perovskite Solar Cells in Regular (n-i-p) architecture

### Speaker

Arevik Arestakyan