#### **Poster Session**

# **General Properties of Radiation**

- **A.M. Altmark**, Total Field Generated Inside a Relativistic Electron Beam Propagating in a Rectangular Dielectric Waveguide
- **V.M. Bondarenko**, Reconstruction procedure for single-photon radiation spectra from multi-photon ones
- A.V. Dik, Electromagnetic Radiation of Electron Bunches Channeled in Ion-channels
- **E.I. Fix**, Coherent Production of Relativistic Ps Atoms by High Energy Photons and Electrons in Aligned Crystals Revisited
- **E.M.** Harutyunyan, Optics of Gyrotropic Crystals in the Field of Two Counter-running Ultrasound Waves
- Vahagh Gharibyan, Radiation Produced by Shower Change Variation
- **L.Sh. Grigoryan**, Microwave Radiation from a Charged Particle Revolving along a Shifted Equatorial Orbit about a Dielectric Ball
- **L.Sh. Grigoryan**, On the Influence of a Dielectric Ball on Electromagnetic Processes
- Yu.P. Kunashenko, Photons Scattering on Planar Channeled Positron and Electron
- **A.P. Potylitsyn**, Monochromaticity of Compton backscattering radiation source for high intensity of a laser beam
- **A.H. Shamamian,** Propagation of the transverse waves in plasma interacting with laser beat waves

#### **Transition Radiation**

- **M.A. Aghinian**, Gamma Cherenkov-Transition Radiation Produced by Charged Particles in Stratified Radiators
- **V.V. Parazian**, "Coherent Effects in the Transition Radiation of Electron Bunches on Acoustic Superlattices"
- **S.R. Uglov**, Overview of Experimental Investigation of X-ray Transition Radiation Generated by 300 900 MeV Electrons in Periodic Multifoil Radiators

#### **Parametric X-Radiation**

A.V. Shchagin, Fresnel Coefficients for Parametric X-ray Radiation

### **Diffraction Radiation, Smith-Purcell Effect**

**D.A. Shkitov**, Coherent Diffraction Radiation as a Source of Electromagnetic Radiation

### **Coherent Bremsstrahlung and Channeling Radiation**

- **S.V. Abdrashitov**, Total Yield of Channeling Radiation from Relativistic Electrons and Positrons in Thin Si and C Crystals
- **E.A. Babakhanyan**, Above-Barrier Reflection and Degenerate States of Energy Band Spectrum in Planar Channeling of Electrons and Positrons in Crystals
- H. Gevorgyan, Radiatoion of the Positron Bunch at Channeling in Nanotubes
- **A.S. Fomin**, Spectral-Angular Distribution and Polarization of Non-Dipole Radiation by Relativistic Electrons in a Thin Crystal
- **N.F. Shul'ga**, Simulation of Coherent Radiation of Relativistic Electrons and Positrons in the Field of Periodically Bent Crystal Planes
- V.V. Syshchenko, Quantum chaos manifestation in the axial channeling
- **T.A. Tukhfatulin**, Flux Dynamics, Angular Distributions and Radiation of Relativistic Electrons and Positrons in a Half-wave Crystals
- V. Yaralov, Governing of the Channeling Radiation by Ultrashort Laser Pulses
- **M.A. Zakharova**, High-frequency Corrections to the Trajectories of Relativistic Electrons and Positrons at Axial Channeling in Si and W Crystals

# X-Ray Scattering without and by Acoustic Superlattices

- **Z.G. Amirkhanyan**, Study Small Structural Changes in Doped on-Liner Optic Crystals by X-ray Sychrotron Renninger Scanning
- **R.Ts. Gabrielyan**, Investigation of the Laue-Bragg case diffraction with Outside Influences
- **A.H. Gevorgyan**, Some Optical Properties of a Stack of Layers of Cholesteric Liquid Crystal and an Anisotropic Medium
- **P.A. Grigoryan**, Focusing of Hard X-rays at Quartz Single Crystals in the Presence of Temperature Gradient
- **V.V. Harutyunyan**, Study of Ionization Effects in Wide-band Gap Insulators under the External Influences
- **S.G. Khlopuzyan**, Program of Model Calculations of X-ray Diffraction with Outside Influences
- **H.M. Manukyan**, X-Ray Diffraction by the Triangular Model of Superlattice with a Stacking Fault
- **V.Gh. Mirzoyan**, Dynamic diffraction of X-ray on ADP single crystals under the influence of thermal gradient
- **A.O. Okunev**, Imaging of Defects in ZnGeP2 Crystals by X-Ray Topography on Base of Borrmann Effect
- V.A. Tkal, Quantitative Criteria for Quality Evaluation of Single Crystal Topography Images
- **V.A. Tkal**, Features of Digital Processing of Topography Contrast in Single Crystal Materials
- **K.G. Trouni**, Integral reflection coefficients for dynamic scattering of X-ray in weakly deformed crystals
- **A.V. Shchagin**, The Energy Resolutions and Fano Factors of Si(Li) and CdTe X-Ray Detectors
- **A.M. Yeghazaryan**, Rationale for a new principle of calculating the intensity of dynamically diffracted X-ray beam in single crystals with defects
- **D.H. Zeynalyan**, Two Schemes of Diffraction of X-ray Radiation Widely Divergent Beam

# **Interaction of Particle Beams with Artificial Structures**

- **A.M. Altmark**, The Transverse Dynamics of the Azimuthally Inhomogeneous Electron Bunch in a Multilayer Dielectric Waveguide of Circular Cross-section
- **Yu. Cherepennikov**, The Device for X-ray Absorption Spectral Analysis with using of Acoustic Monochromator
- **A.C. Gevorkyan**, Modeling of Refraction Indexes of some Types of Dielectrics under Influence of External Electromagnetic Fields
- S. Sarros, Channeling of Protons in Radially Compressed Carbon Nanotubes

# Control of Parameters of Plasma by Acoustic Superlattices and Monochromatic Oprical Radiation

- **A.S. Abrahamyan**, The influence of the acoustoplasma discharge regime on the parameters of the gas-discharge  $CO_2$  laser
- **R.Yu. Chilingaryan**, Changing the emission spectrum of the acoustoplasm discharge at change of parameters of the discharge in a  $CO_2$  laser
- **Q.G. Sahakyan**, Determination of parameters of the acoustoplasma discharge using a method for solving of inverse problems

## **Application of Radiation Beams**

- **S.V. Abdrashitov**, Electron-Positron Pair Production by Channeling Radiation in Radiator-Converter Approach: Computer Modelling
- M.A. Aghinian, Methods for the Measurement of the Refractive Index of MeV Photons Using Total Internal and External Reflections
- **R.H. Avakian**, The Possibility of Obtaining Intense Neutron Source on the Base of Proton Cyclotron C18
- S.R. Gevorkyan, Lepton Pair Production in Peripheral Collisions of Relativistic Ions
- **A.S. Kubankin**, The Experimental Study of 10 Kev Electron Interactions with Plexiglas Surface
- **Yu. P. Kunashenko**, Coherent Production of Relativistic Ps Atoms by High Energy Photons and Electrons in Aligned Crystals Revisited
- **V.C. Nikoghosyan**, About the Accumulation Regime and the Slow Output of Particles for Synchrotron with Low-energy
- **A.P. Potylitsyn**, Simulation of the Longitudinally Polarization Transfer from Moderately Relativistic Electrons to Positrons
- **S.V. Trofymenko**, Ionization Losses of High-Energy Electron-Positron Pair in Thin Targets
- **S.G. Stuchebrov**, Setups for Tomographic Imaging with Submillimetric Spatial Resolution
- **I.E. Vnukov**, Influence of Grains Size on Coherent Pair Production Process in Mosaic Crystals