

LP-2017 CONFERENCE PROGRAM

Tuesday: September 19

09:10 – 09:30

13:15 – 14:00

Registration of the participants

Morning Session

Chair: David Sarkisyan

09:30 - Conference opening: Welcome talks
09:40 LP 2017 chairman

09:40 - Contactless photon-photon interactions
10:30 Charles Adams
Durham University, UK

10:30 - Optical three-axis vector magnetometry based on nonlinear Hanle effect in
11:00 rubidium vapor
Aram Papoyan
Institute for Physical Research, NAS of Armenia



11:00 – 11:40 Coffee Break

Morning Session


Chairs: Artur Ishkhanyan



11:40 - Quantum Optics in the hyperfine Paschen-Back regime
12:30 Ifan Hughes
Durham University, UK

12:30 - Selective reflection from a Rb layer with a thickness as small as $\lambda/20$
13:00 Armen Sargsyan
Institute for Physical Research, NAS of Armenia



13:00 – 14:30 Lunch

Evening Session		Chairs: Charles Adams
14:30 - 15:00	Bi-confluent Heun solutions of the Schrödinger equation Artur Ishkhanyan Institute for Physical Research, NAS of Armenia	
15:00 - 15:30	Superposition state transfer between single atoms in distant optical cavities Anahit Gogyan Institute for Physical Research, NAS of Armenia	
 15:30 – 16:10 Coffee break		

Evening Session		Chairs: Ifan Hughes
16:10 - 16:40	High-contrast sub-Doppler resonance observed in a cesium vapor cell for applications in the compact all-optical atomic clocks Denis Brazhnikov Institute of Laser Physics SB RAS, Russia	
16:40 - 17:00	Investigation of alkaline vapors properties by derivative of Selective Reflection from a nanometric thickness cell Emmanuel Klinger ICB UBFC, Dijon, France	
17:00 - 17:20	The selective reflection spectra of Rb vapors and retrieval of group refractive index Khachatryan Davit Institute for Physical Research, NAS of Armenia	
 17:20 – 19:30 Welcome party		
 19:30 Bus to Yerevan		

Wednesday: September 20

Morning Session Chair: Tigran Vartanyan

09:30 - 10:20	Matter-waves exposed to the outside world: from decoherence to gravity and back Ron Folman Ben-Gurion University of the Negev, Israel
10:20 - 10:50	Using atomic vapours to measure fundamental constants James Keaveney Durham University, UK
10:50 - 11:20	Magnetic field-induced symmetry breaking exhibited by explicit circular dichroism for $\Delta F = \pm 2$ transitions of D2 lines of all alkali atoms Ara Tonoyan Institute for Physical Research, NAS of Armenia



11:20 – 12:00 Coffee Break

Morning Session Chairs: Claude Leroy

12:00 - 12:30	A new time-dependent dissipative level-crossing two-state model solvable in terms of the Hermite functions Mariam Gevorgyan Institute for Physical Research, NAS of Armenia
12:30 - 12:50	Experimental demonstration of self-spectral compression of supercontinuum's fraction by 4.1x Vardan Avetisyan Yerevan State University, Armenia
12:50 - 13:10	A periodic level-crossing two-state model of a general Heun class Tigran Ishkhanyan Institute for Physical Research, NAS of Armenia



13:10 – 14:30 Lunch

Evening Session Chairs: Ron Folman

14:30 - 15:10	Semiclassical rates for tunnel ionization from power-law potentials induced by a constant or low-frequency electric field Vladimir Krainov Moscow Institute of Physics and Technology, Russia
15:10 - 15:40	A theory of one-grating multipath atom interferometer Atom Muradyan Yerevan State University, Armenia



15:40 – 16:20 Coffee break

Evening Session

Chairs: Armen Melikyan

16:20 - 16:50	Binding energy and photoionization cross-section of hydrogen-like donor impurity in strongly oblate ellipsoidal quantum dot Davit Hayrapetyan Russian-Armenian University, Armenia
16:50 - 17:20	Generation of two entangled photons by scattering of single photon on random grid of optical fiber Ashot Gevorkyan Institute of Informatics and Applied Physics, NAS of Armenia



17:30 Bus to Yerevan

Thursday: September 21

Morning Session

Chair: Rafayel Drampyan

09:30 - 10:10	Adsorption and photoinduced desorption of rubidium from sapphire surface Tigran Vartanyan ITMO University, Russia
10:10 - 10:40	Breathing spatial solitons in photorefractive crystals with imprinted Bessel structure Yuri Malakyan Institute for Physical Research, NAS of Armenia
10:40 - 11:10	Non-linear localization of the Gaussian beam in Azobenzene liquid crystals Tigran Dadalyan Institute for Physical Research, NAS of Armenia

11:10-13:00 Poster session

**Please hang the posters from the first day of the conference.
For the list of posters please refer to the last part of the programme.**



13:00 – 14:00 Lunch



14:00 – Sightseeing Tour

Friday: September 22

Morning Session Chair: Yuri Malakyan

09:30 - 10:20	Photoionization of alkali molecules Goran Pichler Department of Physics, University of Kuwait
10:20 - 10:40	Plasmonic near-field effect on visible and near-infrared emissions from self-assembled gold nanoparticle films Zeinab Ebrahimpour Shahid Beheshti University, Iran
10:40 - 11:00	Relaxation delay of quantum dipole emitter at the phase-shifted response of metallic nanostructure Torgom Yezekyan Yerevan State University, Armenia



11:00 – 11:30 Coffee Break

Morning Session Chairs: Goran Pichler


11:30 - 12:10	Microfluidic devices for Raman spectroscopy and optical trapping Heidi Ottevaere Vrije Universiteit Brussel, Belgium
12:10 - 12:40	Ho-doped lithium niobate thin films of stoichiometric composition Edvard Kokhanyan Institute for Physical Research, NAS of Armenia
12:40 – 13:00	Complex liquid crystal structures in nematic liquid crystal initiated by photo-alignment on the substrates Varsenik Nersesyan Institute for Physical Research, NAS of Armenia




13:00 – 14:30 Lunch

Evening session Chairs: Petrosyan David

14:30 - 15:10	Generation and diagnostics of laser rubidium plasma: Theory and Experiment Gagik Djotyan Wigner Research Centre for Physics, Budapest, Hungary
15:10 - 15:40	Opportunities for designing photonic crystal fibers for efficient femtosecond point-by-point grating inscription Tigran Baghdasaryan Vrije Universiteit Brussel, Belgium

15:40 – 16:00	Fano resonance in a 3D system of metallic nanoparticles Petros Petrosyan Yerevan State University, Armenia
 16:00 – 16:40 Coffee break	

Evening Session Chairs: Aram Papoyan	
16:40 - 17:20	Adiabatic passage in dissipative Rydberg superatoms Petrosyan David IESL, FORTH, Greece
17:20 - 17:50	Entanglement characteristics of bound and resonant few-body states Anna Okopinska Institute of Physics, Jan Kochanowski University, Poland
17:50-18:30 Closing remarks	
 18:30 Bus to Yerevan	

POSTER PRESENTATIONS

1. Artur Aleksanyan

Implementation programmable logical atomic gate
International scientific educational center of NAS of Armenia

2. Arevik Amiryan

Faraday Rotation for Rb D1 line atomic transitions using a nanocell: modification of Faraday Rotation method
Institute for Physical Research, NAS of Armenia

3. Vladimir Arakelyan

Investigation of ruby R lines luminescence under 2T1 level frequency scanned excitation
Institute for Physical Research, NAS of Armenia

4. Artak Avetisyan

Tunable excitonic absorption in gapped graphene systems
Yerevan State University, Armenia

5. Georgi Badalyan

Microstructure and chemical composition of the YSZ and La, Mg - hexaaluminate double-ceramic-layer TBC systems
Institute for Physical Research, NAS of Armenia

6. Rafik Balasanyan

On the mechanism of formation of nuclear processes under the influence of acoustic oscillations on a liquid
Institute for Physical Research, NAS of Armenia

7. Tigran Dadalyan

Non-linear control of lasing wavelength in dye-doped chiral photonic structures by means of light
Institute for Physical Research, NAS of Armenia

8. Anush Danielyan

Structural and physical properties of iron doped various composition lithium niobate crystals
Institute for Physical Research, NAS of Armenia

9. Hasmik Demirkhanyan

YAG:Yb³⁺ crystal as a potential material for optical temperature sensors
Yerevan State Pedagogical University after Kh. Abovyan, Armenia

10. Gagik Demirkhanyan

Interaction of Re³⁺ impurity ions with inhomogeneous field of radiation
Yerevan State Pedagogical University after Kh. Abovyan, Armenia

11. Marina Derdzyan
Optical properties, radioluminescence and scintillation decay of YAG:Ce:Li(Na)
Institute for Physical Research, NAS of Armenia
12. Hayk Elbakyan
RF spiral scanning streak camera
A.I. Alikhanyan National Science Laboratory, Armenia
13. Emil Gazazyan
Stimulated photodissociation of Feshbach resonances with emission of photon at the collision of two atoms in a laser radiation field
Institute for Physical Research, NAS of Armenia
14. Emil Gazazyan
Fourth photon doppler free rydberg state excitation
Institute for Physical Research, NAS of Armenia
15. Menua Gevorgyan
Quantum Dynamics of Intracavity Third-Subharmonic Generation
Institute for Physical Research, NAS of Armenia
16. Arsen Ghalumyan
LIDAR Return And Depolarization Ratio Profile Measurements In The Atmosphere
A.I. Alikhanyan National Science Laboratory, Armenia
17. Hermine Gharagulyan
Nonreciprocal transmission in electro-tunable cholesterics
Yerevan State University, Armenia
18. Armine Grigoryan
Femtosecond Pulse Shaping with Spatial-Light Modulator Based on Cholesteric with Homeotropic Boundary Conditions
Yerevan State University, Armenia
19. Gayane Grigoryan
Influence of different oscillator strength on coherent process in five-level media
Institute for Physical Research, NAS of Armenia
20. Anahit Gogyan
Spatial soliton formation in azobenzene without external electric field
Institute for Physical Research, NAS of Armenia
21. Levon Hovakimian
On nano-characterization of threading dislocations via electron holographic interference microscopy
Institute of Radiophysics and Electronics, NAS of Armenia

22. Harutyun Hovakimyan
Spatial evolution of light polarization in wedge-shaped cholesteric liquid crystal cell
Yerevan State University, Armenia
23. Karine Hovhannesian
Structural and optical properties of YAG:Ce and LuAG:Ce with additional Li and Na
Institute for Physical Research, NAS of Armenia
24. Davit Khachatryan
Theory of selective reflection spectroscopy in a cell with parallel windows
Institute for Physical Research, NAS of Armenia
25. Alen Khanbekyan
Solid crystals of inert gasses for low energy deposition events
University of Ferrara, Italy
26. Armen Kuzanyan
Superconductor/Thermoelectric/Superconductor Heterostructure for Single-Photon Detection
Institute for Physical Research, NAS of Armenia
27. Astghik Kuzanyan
Thermoelectric Sensor for Energy-Resolving Ultrafast Detection of Single Photon from Infrared to Ultraviolet
Institute for Physical Research, NAS of Armenia
28. Artur Martirosyan
Reflectance ratio behavior of apricot green leaves and soil in the 400-900 nm spectral region
Institute for Physical Research, NAS of Armenia
29. Anush Movsesyan
The structure of Ho-doped lithium niobate thin films
Institute for Physical Research, NAS of Armenia
30. Pavel Muzhikyan
Influence of Multiwavelength Radiation Trapping on the IR Luminescence of YAG:Er,Ce Crystal
Institute for Physical Research, NAS of Armenia
31. Zhirayr Ninoyan
Tuning the lasing wavelength in dye-doped chiral photonic structure with pitch gradient by means of hydrodynamic flow
Yerevan State University, Armenia

32. Svetlana Pashayan

Optical properties of copper oxides nanostructures prepared by thermal and laser sputtering techniques

Institute for Physical Research, NAS of Armenia

33. Silva Petrosyan

Electron-beam deposition of W/CeB₆/W heterostructures

Institute for Physical Research, NAS of Armenia

34. Karen Petrosyan

Investigation of the influence of direct volume expansion on optical properties of Nematic Liquid Crystal layer

Yerevan State University, Armenia

35. Lusine Tsarukyan

Magnetic field assisted nondestructive optical probing of Bessel photonic structures in photorefractive crystal

Institute for Physical Research, NAS of Armenia

36. Arshak Vartanian

Dielectric mismatch and polaron effects on optical-absorption spectra and refractive index changes associated with impurities in quantum dots

Yerevan State University, Armenia

IMPORTANT INFORMATION



08:30 Sharp! Bus leaves every day from France Square station in Yerevan

(<https://goo.gl/maps/aHEKoj1kbX92>)

08:45 Sharp! Minibus leaves every day from Mark Grigoryan street in

Yerevan (<https://goo.gl/maps/bsDwF3Bo1rs>)

