LP-2018 CONFERENCE PROGRAM

Tuesday: September 18

09:10 – 09:30 Registration of the participants

Morning Session Chair: **David Sarkisyan**

09:30 – 09:40 Conference opening: Welcome talks

09:40 – 10:30 Nitrogen-vacancy centers in diamond: physics and some applications
Dmitry Budker
HIM JGU Mainz and UC Berkeley

10:30 – 11:00 Hyperfine level structure in nitrogen-vacancy centers near the ground-state level anticrossing
Andris Berzins
University of Latvia

Coffee Break
11:00 – 11:40

Morning Session Chair: **Goran Pichler**

11:40 – 12:10 Mirrorless degenerate lasing in Fe > Fg atomic system: the overview of ongoing experiments
Aram Papoyan
Institute for Physical Research, NAS of Republic of Armenia

12:10 – 12:40 Far infrared optics of pair-interacting few-particle harmonium atom
Hayk Sarkisyan
Russian-Armenian University

12:40 – 13:00 Bi-confluent Heun potentials for a stationary relativistic wave equation for a spinless particle
Hrayr Azizbekyan
Institute for Physical Research, NAS of Republic of Armenia

Lunch
13:00 – 14:30

Evening Session Chair: **Dmitry Budker**

Generation of extended rubidium plasma by ultra-short quasi-resonant laser radiation: Experiment and Theory
14:30 – 15:00 **Gagik Djotyan**
Wigner Research Center for Physics, Hungary

Study of Hyperfine Paschen-Back regime of potassium D_2 line
15:00 – 15:30 **Armen Sargsyan**
Institute for Physical Research, NAS of Republic of Armenia

Concentration Effects of Er^{3+} Ion on Upconversion Luminescence in YAG Crystals
15:30 – 16:00 **Pavel Muzhikyan**
Institute for Physical Research, NAS of Republic of Armenia

Welcome party
16:20 – 19:30

Bus to Yerevan
19:30

Wednesday: September 19

Morning Session Chair: **Gagik Djotyan**

Relativistic laser plasma dynamics and particle acceleration
09:30 – 10:20 **Sargis Ter-Avetisyan**
ELI-ALPS, Szeged, Hungary

Peculiarities of Dark Resonances on ^{87}Rb, D_2 line using "forbidden" atomic transitions
10:20 – 10:50 **David Sarkisyan**
Institute for Physical Research, NAS of Republic of Armenia

Composition dependence of the electro-optic properties of iron doped lithium niobate
10:50 – 11:10 **Anush Danielyan**
Institute for Physical Research, NAS of Republic of Armenia

Coffee Break
11:10 – 11:50

Morning Session Chair: **Claude Leroy**

Low-frequency electromagnetic radiation of hydrogen molecular gas
11:50 – 12:20 **Vladimir Krainov**
Moscow Institute of Physics and Technology, Russian Federation

SPDC field in the atmosphere: two photon speckle, mode analysis, aberation analysis
12:20 – 12:40 **Hakob Avetisyan**
Institute for Physical Research, NAS of Republic of Armenia

Optical Magnetometry using alkali Nanocells
12:40 – 13:00 **Emmanuel Klinger**
Institute for Physical Research, NAS of Armenia and Laboratoire Interdisciplinaire Carnot de Bourgogne, Université Bourgogne Franche-Comté, France

Lunch
13:00 – 14:30

Evening Session Chair: **Sargis Ter-Avetisyan**

A hierarchy of Schrödinger potentials solvable via a two-term Hermite-function ansatz.

14:30 – 15:00 **Artur Ishkhanyan**
Institute for Physical Research NAS of RA

Optical generation of continuous-wave (coherent phonons flow) in ruby at ambient temperature.

15:00 – 15:20 **Vladimir Arakelyan**
Institute for Physical Research, NAS of Republic of Armenia

Regular light patterns formation by a Gaussian beam in a photorefractive $LiNbO_3$:Fe crystal.

15:20 – 15:40 **Lusine Tsarukyan**
Institute for Physical Research, NAS of Republic of Armenia

Lab Tour
15:40 – 16:50

Bus to Yerevan
17:00

Tuesday: September 20

Morning Session Chair: **Aram Papoyan**

09:30 – 10:20 Photoionization of heteronuclear and homonuclear alkali molecules
Goran Pichler
Department of Physics, Kuwait University

Poster session

10:20 – 12:30

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

Lunch
12:30 – 13:30

Sightseeing Tour
13:30

Friday: September 21

Morning Session Chair: **Gayane Grigoryan**

Defect behavior in Ce-doped garnet scintillators with aliovalent impurities
09:40 – 10:30 **Ashot Petrosyan**
Institute for Physical Research, NAS of Republic of Armenia

The development of non-volatile memory structure and investigation of their properties
10:30 – 10:50 **Arsen Igityan**
Institute for Physical Research of NAS of Republic of Armenia

Self-consisting theory of selective reflection for a dilute Fabry-Perot interferometer
10:50 – 11:10 **Davit Khachatryan**
Institute for Physical Research, NAS of Republic of Armenia

Coffee Break
11:00 – 11:50

Morning Session Chair: **Artur Ishkhanyan**

Optical generation of continuous-wave (coherent phonons flow) in ruby at ambient temperature
11:50 – 12:10 **Vladimir Arakelyan**
Institute for Physical Research, NAS of Republic of Armenia

The Performance Investigation of the Bulk Heterojunction Organic Solar Cells by a Drift-diffusion Model
12:10 – 12:40 **Zeinab Ebrahimpour**
Research Institute for Applied Physics amp; Astronomy (RIAPA), University of Tabriz, Tabriz, Iran

Comparison of Specifications of Thermoelectric Single-Photon Detector on the Base of Lanthanum and Cerium Hexaborides

12:40 – 13:00 **Armen Kuzanyan**
Institute for Physical Research, NAS of Republic of Armenia

Lunch
13:00 – 14:30

Evening Session Chair: **Rafayel Drampyan**

Non-equivalence of traveling wave and standing wave bases for the quantized field-two level atom system in the free space

14:30 – 15:00 **Atom Zh. Muradyan**
Yerevan State University, Dep. of Physics

Preparation and Investigation of Multifunctional "Core-Shell" Magnetic Nanoparticles for Medical Applications

15:00 – 15:20 **Aram Manukyan**
Institute for Physical Research, NAS of Republic of Armenia

Closing remarks
15:30 – 16:45

Bus to Yerevan
17:00

POSTER PRESENTATIONS

1. **K. Hovhanessyan**, Effects of Growth Environment on Optical Properties of YAP:Yb Laser Crystals
2. **A.S. Kuzanyan**, Characteristics of W and CeB6 Thin Films and Single-Photon Detector's Detection Pixels Based on Them
3. **A.A. Kuzanyan**, Single-Layer Detection Pixel of Thermoelectric Single Photon Detector on the Base of (La,Ce)B_6 Sensor and LaB_6 Absorber
4. **Mangesh Bhattarai**, Tuning of the Hanle effect from EIT to EIA using spatially separated probe and control beams
5. **L. Hovakimian**, On the Born-approximation scattering of zero-energy particles
6. **H. Gharagulyan**, Optical Properties of Polymer-Dispersed Cholesteric Liquid Crystalline Wedge-Cell
7. **M. Burkova**, Photodesorption of alkali metal atoms from the glass and sapphire surfaces
8. **T. Sarukhanyan**, Lasing in Cholesteric-Polymer Wedge-Cell System
9. **M. Derdzyan**, Effects of non-isovalent impurities on optical absorption and gamma-ray induced coloration in YAG single crystals
10. **A. Sargsyan**, Faraday Rotation in Rb atomic vapor layers with the thickness of few tens of nm.
11. **A. Sargsyan**, Investigation of Faraday Rotation effect in Cs nano-layers
12. **S. Pashayan**, Copper oxide targets for pulsed laser deposition of thin films: synthesis and investigation
13. **N. Babajanyan**, Raman spectrometry characterization of iron doped different composition lithium niobate crystals
14. **N. Mkhitaryan**, Electro-optic properties of rare earth ions doped lithium niobate
15. **A. Harutyunyan**, A new exactly integrable hypergeometric potential for the Schrödinger equation
16. **A. Movsesyan**, Ho-doped lithium niobate thin films: creation and characterization

17. **Narine Babajanyan**, Raman spectroscopy and luminescence of Ho-doped lithium niobate crystals

18. **Arturs Mozers**, Ground-state angular-momentum alignment-to-orientation conversion

IMPORTANT INFORMATION

- **08:30** Precise! Bus departure every day from *France Square station* in Yerevan
- **08:45** Precise! Minibus departure every day from *National Academy of Science of Armenia* in Yerevan

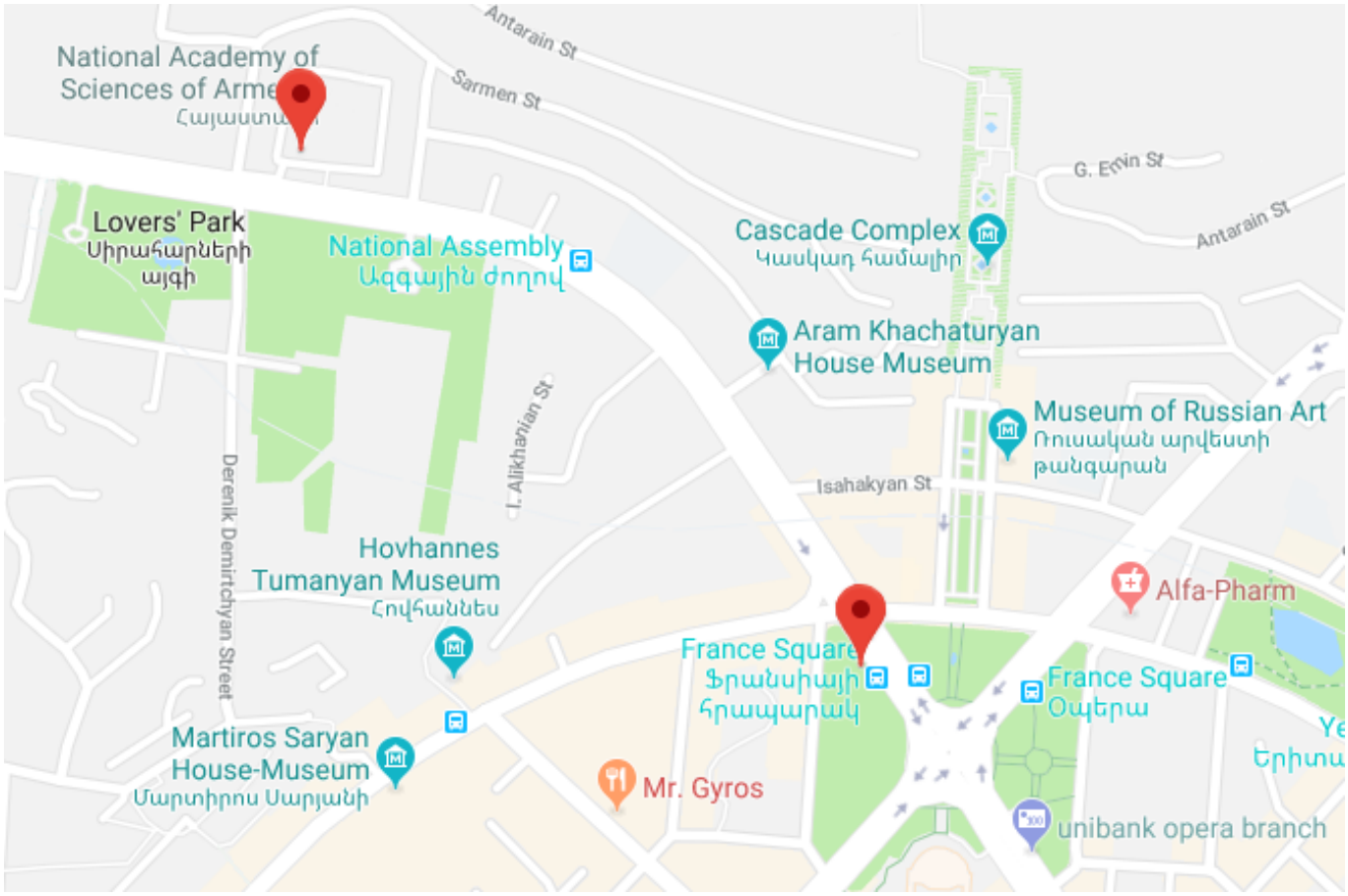

Figure 1: Bus and mini bus leaves places