

## **International Scientific Workshop dedicated to the 50th anniversary of Professor H.A. Sarkisyan**

### ***“Collective Phenomena in Quantum and Mesoscopic Systems”***

The topics of the workshop cover various aspects related to the study of collective phenomena in quantum and mesoscopic systems: quantum dots, atoms, graphene, integrable multiparticle systems, metallic nanorods, layered nanostructures, nanoplatelets.

Various both theoretical and experimental studies will be presented. The workshop is intended for a wide audience of listeners: students, PhD students, researchers.



Yerevan, 2022

## 1 June

12:00 pm to 12:15 pm	<b>Opening Ceremony</b>  <i>Chairman: Aram Saharyan</i>
12:15 pm to 12:45 pm	<b>Ochbadrah Chuluunbaatar</b> , Joint Institute for Nuclear Research, Russian Federation “Updates of KANTBP code and their applications for solving some physical problems”
12:45 pm to 13:15 pm	<b>Alexander Gusev</b> , Joint Institute for Nuclear Research, Russian Federation “The application of adiabatic and finite element methods for quantum dot models”
13:15 pm to 13:45 pm	<b>Coffee Break</b>  <i>Chairman: Ochbadrah Chuluunbaatar</i>
13:45 pm to 14:15 pm	<b>Aram Saharyan</b> , Yerevan State University, Armenia “The Casimir effect in graphene made structures”
14:15 pm to 14:45 pm	<b>Tigran Hakobyan</b> , Yerevan State University, Armenia “Generalized Calogero models via Dunkl operators and their symmetries”

## 2 June

**Social Dinner**

## 3 June

	<i>Chairman: Alexander Gusev</i>
12:00 pm to 12:30 pm	<b>David Baghdasaryan</b> , Russian-Armenian University, Armenia “The multi impurity states in CdSe nanoplatelets”
12:30 pm to 13:00 pm	<b>Hayk Ghaltaghchyan</b> , Russian-Armenian University, Armenia “The electron gas in the core/shell cylindrical quantum dot: thermodynamic and diamagnetic properties”
13:00 pm to 13:30 pm	<b>Volodya Harutyunyan</b> , Russian-Armenian University, Armenia

	“Excitonic states and optical transitions in CdSe and PbS nanoplatelets”
13:30 pm to 14:00 pm	<b>Coffee Break</b>  <b>Chairman: Volodya Harutyunyan</b>
14:00 pm to 14:30 pm	<b>David Blaschke</b> , Wrocław University, Poland “Dynamical Schwinger effect in graphene-like systems”
14:30 pm to 15:00 pm	<b>Yevgeni Mamasakhlisov</b> , Russian-Armenian University, Armenia “Adsorption of single-stranded nucleic acids onto the surface of a single-walled carbon nanotube”

#### 4 June

	<b>Chairman: David Hayrapetyan</b>
12:00 pm to 12:30 pm	<b>Aram Papoyan</b> , Institute for Physical Research (IPR), Armenia “Mirrorless degenerate lasing in Fe > Fg atomic system: the overview of ongoing experiments”
12:30 pm to 13:00 pm	<b>Khachatur Nerkararyan</b> , Yerevan State University, Armenia “Resonance interaction between limited rod and microwave radiation”
13:00 pm to 13:30 pm	<b>Kamo Aharonyan</b> , National Polytechnic University of Armenia, Armenia “Plasmons and plasmon-phonons in semiconductor quantum wells under the dielectric confinement effect”
13:30 pm to 14:00 pm	<b>Coffee Break</b>  <b>Chairman: Aram Papoyan</b>
14:00 pm to 14:30 pm	<b>David Hayrapetyan</b> , Russian-Armenian University, Armenia “Optical properties of quasi two-dimensional Biexciton States”
14:00 pm to 14:30 pm	<b>Hayk Sarkisyan</b> , Russian-Armenian University, Armenia “Pair-interacting gas in quantum dots: thermodynamics and long-wave optics”
13:30 pm to 14:00 pm	<b>Closing Ceremony</b>

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