

**PROGRAM**  
**Conference Devoted to the 75 Anniversary of E.M. Kazaryan**  
**Russian-Armenian University**  
**February 23-24, 2017, Yerevan, Armenia**

| 23 February                               |   |
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| <b>Opening Ceremony</b>                   |   |
| <b>10:00-10:15</b>                        | Welcome words by:<br><b>A. Darbinyan, R. Martirosyan, S. Harutyunyan, A. Kirakosyan</b>   |
| <b>10:15-10:50</b>                        | <b>The stages of the scientific activity of the academician E. Kazaryan</b><br><b>H. Sarkisyan(RAU, Armenia)</b>                              |
| <b>Chair: S. Vinitzky</b>                 |   |
| <b>10:50-11:15</b>                        | <b>Photoconductivity and radiation absorption in the infrared diapason in Ge/Si quantum dots</b><br><b>D.Firsov(SPBSTU, Russia)</b>           |
| <b>11:15-11:40</b>                        | <b>Finite element method for solving boundary-value problems of quantum mechanical systems</b><br><b>A. Gusev(JINR, Russia)</b>               |
| <b>11:40-12:00</b><br><b>Coffee Break</b> |   |
| <b>Chair: K. Aharonyan</b>                |   |
| <b>12:00-12:25</b>                        | <b>Low-dimensional Fröhlich polaron with Rashba and Dresselhaus spin-orbit couplings</b><br><b>A. Vartanian (YSU, Armenian)</b>               |
| <b>12:25-12:50</b>                        | <b>A diamond with NV-centers: a promising material for sensor and quantum technologies</b><br><b>A. Papoyan (IPR, Armenia)</b>                |
| <b>12:50-13:15</b>                        | <b>Ho-doped lithium niobate thin films. Growth and properties</b><br><b>E. Kokanyan(IPR, Armenia)</b>   |
| <b>13:15-14:30</b><br><b>Lunch</b>        |   |
| <b>Chair: H. Sarkisyan</b>                |   |
| <b>14:30-15:55</b>                        | <b>Coulomb interaction in high-k dielectric-environment mediated two-dimensional quantum structures</b><br><b>K. Aharonyan(SEUA, Armenia)</b> |
| <b>15:55-16:20</b>                        | <b>Conical quantum dot in the presence of the electric field</b><br><b>D. Hayrapetyan (RAU, Armenia)</b>                                      |

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| <b>Chair: D. Firsov</b>                   |   |
| <b>10:00-10:25</b>                        | <b>Kantorovich approach for analysis of spectral and optical characteristics of quantum dots</b><br><b>S. Vinitsky(JINR, Russia)</b>                          |
| <b>10:25-10:50</b>                        | <b>Generation of entangled photon pair states in nonlinear hyperbolic metamaterials</b><br><b>I. Iorsh(ITMO, Russia)</b>                                      |
| <b>10:50-11:15</b>                        | <b>Photoelectric properties of semiconductor nanowires</b><br><b>S. Petrosyan(RAU, Armenia)</b>   |
| <b>11:15-11:35</b><br><b>Coffee Break</b> |   |
| <b>Chair: V. Harutyunyan</b>              |   |
| <b>11:35-12:00</b>                        | <b>Semi-cylindrical microresonator</b><br><b>Kh. Nerkararyan(YSU, Armenia)</b>  |
| <b>12:00-12:25</b>                        | <b>Aharonov-Bohm effect for fermionic current in two-dimensional rings</b><br><b>A. Saharian(YSU, Armenia)</b>  |
| <b>12:25-12:50</b>                        | <b>Experimental evidence of magnetoresistance Aharonov-Bohm effect (MABE) in type-II oblate ellipsoidal quantum dots</b><br><b>K. Gambaryan(YSU, Armenia)</b> |
| <b>12:50-14:00</b><br><b>Lunch</b>        |   |
| <b>Chair: A. Saharian</b>                 |   |
| <b>14:00-14:25</b>                        | <b>Optical transitions in InSb/In Pnanospherical heterostructures</b><br><b>V. Harutyunyan (RAU, Armenia)</b>   |
| <b>14:25-14:50</b>                        | <b>Calogero model and its generalizations</b><br><b>T. Hakobyan(YSU, Armenia)</b>   |
| <b>14:50-15:15</b>                        | <b>Thermodynamics of the electron gas localized in asymmetric parabolic quantum dot</b><br><b>Ye. Mamasakhlisov(YSU, Armenia)</b>                             |