

XXVII International Colloquium  
on  
**Group Theoretical Methods in Physics**

**GROUP - 27**

**Yerevan, Armenia, August 13 - 19, 2008**

**THIRD BULLETIN**

This is a last BULLETIN contains the scientific programme, information concerning the preparation of the Colloquium Proceedings and other useful information of the XXVII International Colloquium on **Group Theoretical Methods in Physics**.

We also invite you to occasionally visit the Colloquium web page at

”<http://theor.jinr.ru/~group27/>”

for updated information and news concerning the Colloquium.

## 1 Invited Speakers

Allahverdyan, Armen	<i>YPhI, Yerevan</i>
Belavin, Alexander	<i>ITP, Chernogolovka</i>
Bieliavsky, Pierre	<i>Catholic University of Louvian, Louvain</i>
Daskaloyannis, Costantin	<i>Aristotel University of Thessaloniki, Thessaloniki</i>
Doebner, Heinz-Dietrich	<i>ASI, Clausthal</i>
Draayer, Jerry	<i>Baton Rouge</i>
Exner, Pavel	<i>Nuclear Physics Institute, Rez</i>
Fjelstad, Jens	<i>CTQMP, Aarhus</i>
Gazeau, Jean-Pierre	<i>University of Paris 7, Paris</i>
Isaev, Alexey	<i>JINR, Dubna</i>
Nahm, Werner	<i>DIAS, Dublin</i>
Sheikh-Jabbari, Mohammad	<i>IPM, Tehran</i>
van Moerbeke, Pierre	<i>Catholic University of Louvian, Louvain</i>
Vourdas, A.	<i>University of Bradford, Bradford</i>

## 2 The GROUP27 Colloquium is supported by grants from:

- International Union of Pure and Applied Physics (IUPAP)
- International Association of Mathematical Physics (IAMP)
- Joint Institute for Nuclear Research
- Infeld - Bogolyubov programme
- State Committee of Science of the Republic of Armenia
- Yerevan State University

## 3 Timetable

TUESDAY, 12 August Arrival and Registration  
WEDNESDAY, 13 August Talks begin in the morning  
TUESDAY, 19 August Conference ends in the afternoon  
WEDNESDAY, 20 August Departure

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30 November Deadline for submission of manuscripts for the Proceedings

## 4 Special Events

- Tuesday, August 12,  
Welcome Party will be held in the Ani Plaza Hotel (20.00-22.00).
- Friday, August 15, 19.30  
Weyl Prize Ceremony in Komitas Chamber Music Hall (Isahakian st. 1 ).
- Saturday, August 16, 14.00  
Excursion to Garni - Gegard.
- Sunday, August 17, 10.00  
Excursion to Museum of the Armenian Genocide and Memorial.
- Sunday, August 17, 12.00  
Trip to Sevan lake with barbecue.
- Monday, August 18,  
Conference Banquet (20.00 - 23.00).

## 5 Proceedings

30 November is a deadline for submission of manuscripts for the Proceedings. All contributions will be reviewed but only a limited number will be selected for the Proceedings. The deadline for submission of talks is November 30, 2008. For any information concerning publication please contact by

e-mail: group27@ysu.am

and copy

e-mail: pogosyan@theor.jinr.ru

Submitted materials must be in English. Please use LaTeX format 12pt, 150x220mm. Size restrictions: for 45 min. and 30 min. talks - 15 and - 12 pages, for 20 min. contributions - 10 pages, for poster session - 6 pages.

## 6 Conference site

The Conference will be held at the *Physics Department of Yerevan State University*. Alex Manoogian St. 1, 0025 Yerevan, Armenia.

## 7 Transportation

Yerevan is connected by regular flights from Amsterdam, Athens, Dusseldorf, Frankfurt, Istanbul, Kiev, London, Minsk, Moscow, Munich, Prague, Paris, St.Petersburg, Vienna and Tehran. The time table of the international flights to Yerevan can be found at:

"<http://www.zvartnots.am/>"

All participants are asked to inform the Organizing Committee not later than ten days before arrival by E-mail the exact flight number, date and time of arrival.

In Yerevan airport "Zvartnoz" all participants will be met by the representatives of the Organizing Committee carrying the label **GROUP-27**.

## 8 Registration Desk

It is expected that most participants will arrive on Tuesday, 12 August. Conference Registration Desk opens from 15.00 to 19.00 on Tuesday in the Ani Plaza Hotel, at 12 August and will continue the next day from 09.30 at the Physics Department of Yerevan State University (room 306).

**Please, address all mail concerning**

*scientific programme to*

**Dr. George Pogosyan**  
International Center for Advanced Studies  
Yerevan State University  
Alex Manoogian 1, Yerevan,  
0025, Armenia  
E-mail: pogosyan@theor.jinr.ru  
pogosyan@ysu.am  
group27@ysu.am

*visas, accommodation, transportation to*

**Knarik Muradyan**  
Yerevan State University  
Alex Manoogian 1, Yerevan,  
0025, Armenia  
Phone: (+374-10) 57 88 41  
Fax: (+374-10) 55 46 41  
E-mail: group27@ysu.am

## List of Participants

1. *Aghamalyan, David*  
Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *Hamiltonian formulation of the systems on curved spaces, with the Lagrangians depending on extrinsic curvatures.*
2. *Allahverdyan, Armen*  
Department of Theoretical Physics, Yerevan Physics Institute, Alikhanian Brothers St. 2, Yerevan 0036, Armenia.  
**Title:** *Dynamics of quantum measurements: a solvable realistic model*
3. *Ali, Syed Twareque*  
Department of Mathematics and Statistics, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec, H3G 1M8, Canada.  
**Title:** *Coherent states from a class of probability distributions*
4. *Alinejad, Naser*  
Plasma Physics and Nuclear Fusion Research School, Entehaye kargare shomali, 14399-51113 Tehran, Iran.  
**Title:** *Optimization of Discern Parameters Calculation of Nuclear Models with Talmi-Mashinski Coefficients for Nuclei with two Nucleon out of Closed Shell*
5. *Amani, Ali*  
Physics Department, Faculty of Science, Mazandaran University, 47416-1467 Babolsar, Iran.  
**Title:** *Factorization method for the three scalar fields and BPS Bounds*
6. *Ananikian, Nerses*  
Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *Multidimensional mapping on the recurrent lattices with multisite exchange interactions: Lyapunov exponents.*
7. *Ananikyan, Lev*  
Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *TBA*
8. *Angelova, Maia*  
School of CEIS, Northumbria University, Pandon Building, Camden Street, Newcastle upon Tyne, UK.  
**Title:** *Combined Clustering Models for the Analysis of Gene Expression*
9. *Antonosyan, Diana*  
Yerevan State University, Alex Manoogian St., 1; 0025 Yerevan, Armenia.  
**Title:** *Multi - Photo Processes in Quasi-Phase-Matched Structures*
10. *Ardalan, Farhad*  
Sharif University and Institute for Studies in Theoretical Physics and Mathematics (IPM), Niavaran Square Tehran, Iran.  
**Title:** *ADS2/CFT*

11. *Avakian, Roland*  
Yerevan State University, Alex Manoogian St., 1; 0025 Yerevan, Armenia.
12. *Bagdasaryan, Armen*  
Trapeznikov Institute for Control Sciences, 65 Profsoyuznaya 117997, Moscow, Russia.  
**Title:** *TBA*
13. *Belavin, Alexander*  
Institute for Theoretical Physics, 2 Centralnaya apt.95, 142432 Chernogolovka, Russia.  
**Title:** *On the correlation numbers in Minimal Gravity and Matrix Models*
14. *Bieliausky, Pierre*  
Departement de Mathematique, Universite Catholique de Louvain, Chemin du Cyclotron 2, 1348 Louvain - la - Neuve, Belgium.  
**Title:** *Non-formal deformation quantization, Drinfel'd twists, and Hermitian symmetric spaces*
15. *Blanc, Philippe*  
Institut de Mathematiques de Luminy, Case 930, 163 Avenue de Luminy, 13288 Marseille Cedex 09, Marseille, France.  
**Title:** *Orbital integrals and automorphic spectrum via cohomology*
16. *Borowiec, Andrzej*  
Bogoliubov Laboratory of Theoretical Physics, JINR, 141980 Dubna, Russia.  
**Title:** *Quantum Deformations of the Lorentz Algebra*
17. *Boyle, Lewis Laurence*  
University Chemical Laboratory, CT2 7NH Canterbury, UK.  
**Title:** *Character Tables of Automorphism Groups*
18. *Boya, Luis*  
University of Zaragoza, Zaragoza, Spain.  
**Title:** *Symmetric Spaces of Exceptional Group*
19. *Burdik, Cestmir*  
Czech Technical University, Department of Mathematics, Trojanova 13, 120 00 Prague, Czech Republic.  
**Title:** *Calogero Model with Matrix Potential*
20. *Campoamor-Stursberg, Rutwig*  
IMI UCM, 3, Plaza de Ciencias, 28040 Madrid, Spain.  
**Title:** *Kinematical superalgebras and Lie algebras of order 3*
21. *Carmeli, Claudio*  
Universitadi Genova and INFN, sezione di Genova, via Diano Marina 9/15, 16157 Genova, Italy.  
**Title:** *Extremal covariant POVM: the case of a compact symmetry group.*
22. *Cassinelli, Giovanni*  
Department of Physics, University of Genoa, via Dodecaneso 33, 16146 Genova, Italy.  
**Title:** *Induced Representations of Super Lie Groups.*

23. *Chaichian, Masud*  
Department of Physics, P.O. Box 64, University of Helsinki, 00014 Helsinki, Finland.  
**Title:** *Symmetries of Noncommutative Quantum Field Theory and Their Implications.*
24. *Chmielowski, Wladyslaw*  
JINR, 6 Joliot-Curie Sq., 141980 Dubna, Russia.
25. *Chubaryan, Eduard*  
Yerevan State University, Alex Manoogian St., 1; 0025 Yerevan, Armenia.
26. *Daskaloyannis, Costantin*  
Mathematics Department University of Thessaloniki, Aristotel university of Thessaloniki, 54124 Thessaloniki, Greece.  
**Title:** *Quadratic algebras for three dimensional superintegrable systems*
27. *Dahm, Rolf*  
Zentrum für Datenverarbeitung, Universität Mainz, D-55099 Mainz, Germany.  
**Title:** *A symmetry reduction scheme of the Dirac algebra without dimensional defects*
28. *Damianou, Pantelis*  
Department of Mathematics and Statistics, University of Cyprus, 1678 Nicosia, Cyprus.  
**Title:** *Reduction and Realization in Toda and KM systems*
29. *De Bie, Hendrik*  
Department of Mathematical Analysis, Ghent University, Galglaan 2, 9000 Ghent, Belgium.  
**Title:** *Schrödinger equations in superspace*
30. *del Olmo, Mariano*  
Department of Physics, University of Valladolid, E-47011 Valladolid, Spain.  
**Title:** *Discrete Quantum Potentials via Umbral Calculus*
31. *Degasperis, Antonio*  
Dipartimento di Fisica Università di Roma La Sapienza, Italy.  
**Title:** *Construction of integrable partial differential equations.*
32. *Doebner, Heinz-Dietrich*  
Arnold Sommerfeld Institute for Mathematical Physics, Clausthal, Germany.  
**Title:** *On Connections Between Global and Nonlinear Structures of Quantum Mechanics*
33. *Dobrev, Vladimir*  
INRNE, Bulgarian Academy of sciences, Tzarigradsko shosse 72, 1784, Sofia, Bulgaria.  
**Title:** *Positive Energy Representations, Holomorphic Discrete Series and Finite-Dimensional Irreps*
34. *Draayer, Jerry P.*  
Southeastern Universities Research Association, 1201 New York Avenue NW, Suite 430, 20005 Washington, USA.  
**Title:** *Evidence for Symplectic Symmetry in Ab Initio No-Core Shell Model Results for Light Nuclei*

35. *Dvoeglazov, Valeriy*  
 Facultad de Fisica, Universidad de Zacatecas, Ap. Postal 636, Suc. UAZ Zacatecas  
 98062 Zac. Mexico.  
**Title:** *Lorentz-covariant Theories of Higher Spin Fields*
36. *Exner, Pavel*  
 Department of Theoretical Physics, Nuclear Physics Institute, 250 68 Rez., Czech Rep.  
**Title:** *Quantum graphs and their vertex couplings*
37. *Farhad, Izadi*  
 Amirabad, Plasma Physics and Nuclear Fusion Research School, Tehran, Iran.  
**Title:** *Optimization of Transition Probability Calculation with Creation and Annihilation Operators by New Method for Light Nuclei*
38. *Fernández C., David J.*  
 Departamento de Física, Centro de Investigación y Estudios Avanzados, Av. Instituto  
 Politécnico Nacional #2508, Mexico, D.F. 07360, Mexico.  
**Title:** *Supersymmetric partners for the associated Lamé potentials*
39. *Ferrari, Franco*  
 University of Szczecin, Institute of Physics, Wielkopolska 15, 70-451 Szczecin, Poland.  
**Title:** *Liouville field theory - a fresh look from statistical mechanics*
40. *Fjelstad, Jens*  
 Center for the Topology and Quantization of Moduli Spaces, Aarhus, Denmark.  
**Title:** *Conformal field theory and algebra in tensor categories*
41. *Gazeau, Jean-Pierre*  
 University Paris Diderot (Paris 7), APC 10, rue Alice Domon et LTonie Duquet, 75205  
 Paris, France.  
**Title:** *Fuzzy geometries from coherent state quantization*
42. *Gevorkyan, Ashot*  
 Institute of Applied Problem of Physics/ Institute for informatics and Automation  
 Problems, NAS of Armenia, 1 Parujr Sevak, 0014 Yerevan, Armenia.  
**Title:** *Exactly solvable model of quantum mechanics with random environment.*
43. *Gevorkyan, Tigran*  
 Yerevan State University, Alex Manoogian St., 1; 0025 Yerevan, Armenia.  
**Title:** *Quantum interference and dissipation in time-modulated nonlinear oscillator*
44. *Gershun, Victor*  
 NSC KIPT 1, Akademicheskaya St., Kharkov, 61108, Ukraine.  
**Title:** *Integrable string models in terms of chiral invariant currents of  $SU(n)$ ,  $SO(n)$ ,  $SP(n)$  groups.*
45. *Goehmann, Frank*  
 University Wuppertal, Germany.  
**Title:** *Correlation functions of the XXZ chain at finite temperature: Multiple integrals and their factorization.*
46. *Goldin, Gerald*  
 Rutgers University, 118 Frelinghuysen Road, 08854 Piscataway, NJ, USA.



- Title:** *Diffeomorphism Group Representations, Configuration Spaces, and Quantum Fields.*
47. *Gromov, Nikolay*  
 Department of Mathematics, Komi Science Center UrB RAS, Kommunisticheskaya st., 24; 167982 Syktyvkar, Russia.  
**Title:** *Geometrical modeling of physical quantities*
48. *de Guise, Hubert*  
 Department of Physics, Lakehead University, Thunder Bay, ON, P7B 5E1 Canada.  
**Title:** *Quantum tomography of three-level atoms*
49. *Hakobyan, Tigran*  
 Department of Physics, Yerevan State University, 0025 Yerevan, Armenia.  
**Title:** *The Lieb-Mattis theorem for frustrated spin ladders*
50. *Hayrapetyan, Armen*  
 Institute of Applied Problems of Physics, NAS, Hr. Nersessyan st. 25, 0014 Yerevan, Armenia.  
**Title:** *About the possibility of high energy neutron Bragg diffraction in crystal in the field of laser radiation.*
51. *Hasebe, Kazuki*  
 Department of General Education, Takuma National College of Technology, Takuma-cho, Mitoyo-city, Kagawa 769-1192, Japan.  
**Title:** *SUSY Quantum Hall Effect and Supertwistor*
52. *Herranz, Francisco Jose*  
 Departamento de Fisica, Escuela Politecnica Superior, Villadiego s.n., Universidad de Burgos, 09001 Burgos, Spain.  
**Title:** *Superintegrable Kepler-Coulomb and oscillator Hamiltonians with Dirac's monopole*
53. *Hovhannisyan, Vahan*  
 Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *Multidimensional mapping on the recurrent lattices with multisite exchange interactions: Lyapunov exponents.*
54. *Hovhannisyan, Lilit*  
 Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *Improved Raman-Nath approximation for Kapitza-Dirac diffraction for large detuning of resonance and for zero value detuning of resonance*
55. *Inozemtsev, Vladimir*  
 BLTP JINR, Joliot-Curie 6, 141980 Dubna, Russia.  
**Title:** *Integrability and solutions to multicomponent analogs of the Lamé equation*
56. *Isaev, Alexey*  
 BLTP, JINR, 141980 Dubna, Russia.  
**Title:** *Functional equations for transfer-matrix operators in open Hecke chain models*
57. *Ivanov, Evgeny*  
 BLTP, JINR, 141980 Dubna Moscow region, Russia.  
**Title:** *TBA*

58. *Iwasa, Masatomo*  
 Department of Physics, Nagoya University, Furocho Chikusaku Nagoya, 464-8602 Nagoya, Japan.  
**Title:** *Renormalization group method based on the Lie symmetry of dynamical systems*
59. *Kapuscik, Edward*  
 University of Lodz, ul. Grunwaldzka 24/13, 31 524 Krakow, Poland.  
**Title:** *Quantum mechanics with variable Planck constant*
60. *Kerner, Richard*  
 Laboratoire de Physique Theorique de la Matiere Condensee, Tour 24, 4-eme etage, Boite 121, Universite Pierre et Marie Curie, 4 Place Jussieu, 75005 Paris, France.  
**Title:** *Internal symmetries of icosahedral viral capsids*
61. *Khabibullin, Ismagil*  
 Ufa Institute of Mathematics, Russian Academy of Science, Russia.  
**Title:** *On the classification of integrable discrete chains*
62. *Kluemper, Andreas*  
 Wuppertal University, FBC/Theoretical Physics, Gauss-Strasse 20, 42097 Wuppertal, Germany.  
**Title:** *Non-linear integral equation approach to  $sl(2|1)$  integrable network models*
63. *Kojima, Takeo*  
 Department of Mathematics, College of Science and Technology, Nihon University, Kanda-Surugadai 1-8-18, Chiyoda-ku, 101-0062 Tokyo, Japan.  
**Title:** *The integrals of motion for the deformed  $W$ -algebra  $W_{q,t}(\widehat{gl}_N)$*
64. *Kolganova, Elena*  
 BLTP, JINR, 141980 Dubna Moscow Region, Russia.  
**Title:** *TBA*
65. *Kuznetsova, Zhanna*  
 Campus Universitario, Departamento de Matematica, ICE, Universidade Federal de Juiz de Fora, Brazil.  
**Title:** *Decomposition of  $N$ -extended supersymmetric quantum mechanics multiplets.*
66. *Kryuchkyan, Gagik*  
 Yerevan State University, Department of Theoretical Physics, Alex Manoogian St., 1; 0025 Yerevan, Armenia.  
**Title:** *Non-limited EPR-states in phase-space; Quantum interference and dissipation in time-modulated nonlinear oscillator; Multi-photon states in periodically-poled lattices.*
67. *Lechtenfeld, Olaf*  
 Institut fuer Theoretische Physik, Leibniz Universitaet Hannover, Appelstrasse 2, D-30167 Hannover, Germany.  
**Title:**  *$N=4$  Mechanics, WDVV Equations and Roots*
68. *Leitner, Marianne*  
 Dublin Institute for Advanced Studies, 10 Burlington Road, Dublin 4, Ireland.  
**Title:** *TBA*

69. *Levi, Decio*  
 Dipartimento di Ingegneria Elettronica, Roma Tre University, Via della Vasca Navale 84, 00146 Roma, Italy .  
**Title:** *Miura and Bäcklund transformations for Adler-Bobenko- Suris discrete equations.*
70. *Lukierski, Jerzy*  
 Institute for Theoretical Physics, University of Wrocław, pl Maxa Born 9, Wrocław, Poland.  
**Title:** *kappa-deformation of quantum fields and kappa-deformed oscillators*
71. *Mann, Ady*  
 Technion - Israel Institute of Technology, Department of Physics, Technion, 32000 Haifa, Israel.  
**Title:** *On the (non)existence of  $d+1$  MUBs in a space of dimension  $d$ .*
72. *Manvelyan, Ruben*  
 Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *TBA*
73. *Mardoyan, Levon*  
 State Committee of Science of RA and Physics Department of YSU, Yerevan, Armenia.
74. *Minasian, Ruben*  
 Laboratoire de Mathématiques et Physique Théorique, Tours University, 37200 Tours, France.  
**Title:** *Some uses of derived brackets in string theory*
75. *Miller, Willard*  
 School of Mathematics, 127 Vincent Hall, 206 Church St S.E., 55455 Minneapolis, Minnesota , USA.  
**Title:** *Quantum and classical models for quadratic algebras associated with second order superintegrable systems.*
76. *Nahm, Werner*  
 University of Bonn, Nussallee 12, D-53115 Bonn, Germany.  
**Title:** *Yangian characters and modular forms*
77. *Nersessian, Armen*  
 Yerevan State University, Department of Theoretical Physics, Alex Manoogian St., 1; 0025 Yerevan, Armenia.  
**Title:** *Second Hopf map and supersymmetric mechanics with Yang monopole.*
78. *Oblezin, Sergey*  
 Institute for Theoretical and Experimental Physics, 117259 Moscow, Russian Federation.  
**Title:** *Baxter operators and L-functions*
79. *Ohanyan, Vadim*  
 Yerevan State University, Department of Theoretical Physics, Alex Manoogian St., 1; 0025 Yerevan, Armenia.  
**Title:** *Exact solution of the chain of frustrated XXZ Heisenberg clusters alternating with Ising spins.*

80. *Oganesyan, Koryun*  
 Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *Statistical properties of ensemble of 1D disordered quantum  $N$ -particles system in external field.*
81. *Papadopolos, Zorka*  
 Institut fuer Theoretische Physik, Universitaet Tuebingen, Auf der Morgenstelle 14/D8, 72076 Tuebingen, Germany.  
**Title:** *A decagonal quasicrystal on the triangular tiling projected from the  $A_4$  root lattice*
82. *Petrosyan, David*  
 Institute of Electronic Structure & Laser, FORTH, 71110 Heraklion, Greece.  
**Title:** *Many-body physics of interaction-bound pairs of bosons in a lattice*
83. *Paturej, Jaroslaw*  
 University of Szczecin, Institute of Physics, Wielkopolska 15, 70-451 Szczecin, Poland.  
**Title:**  *$O(N)$  generalized nonlinear sigma model and its applications*
84. *Pogosyan, George*  
 International Center for Advanced Studies, Department of Theoretical Physics, Yerevan State University, Alex Manoogian St. 1; 0025 Yerevan, Armenia.
85. *Poghossian, Rubik*  
 Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *Instantons in Super-Yang-Mills Theory.*
86. *Pupasov, Andrey*  
 Tomsk, av. Lenina 36, Tomsk State University, Physics Faculty, Department of Quantum Field Theory, 634050 Tomsk, Russia.  
**Title:** *Supersymmetric transformation for propagators*
87. *Radu, Eugen*  
 Laboratoire de Mathematiques et Physique Theorique, Tours University, 37200 Tours, France.  
**Title:** *"Topological"  $Q$ -balls and vorton solutions*
88. *Rakic, Zoran*  
 Faculty of Mathematics, University of Belgrade, Studentski trg 16, p.o. box 550, 11001 Belgrade, 381 Beograd, Serbia.  
**Title:** *Path Integrals on Real,  $p$ -ADIC, and ADELIC Spaces*
89. *Rakhimov, Isamiddin*  
 Department of Mathematics, Faculty of Science, UPM, 43300 Serdang, Malaysia.  
**Title:** *On Degnerations and Invariants of 3-Dimensional Leibniz Algebras*
90. *Reshetnyak, Alexander*  
 Institute of Strength Physics and Materials Science, Tomsk Scientific Center, pr. Akademicheskii, 2/1, Tomsk, Russia .  
**Title:** *Nonlinear operator Superalgebras and BFV-BRST operator for Lagrangian description of mixed-symmetry HS Fields in AdS spaces*

91. *Rouhani, Shahin*  
Institute For Studies in Theoretical Physics and Mathematics Tehran, PO Box 19395-5746, Iran.  
**Title:** *Conformal Curves on Rough Surfaces*
92. *Ruehl, Werner*  
Department of Physics, Technical University of Kaiserslautern, Postfach 3049 67653 Kaiserslautern, Germany.  
**Title:** *Local interactions of higher spin fields that are gauge invariant in linear approximation*
93. *Saaryan, Aram*  
Yerevan State University, Alex Manoogian St. 1; 0025 Yerevan, Armenia.
94. *Samsonyan, Marine*  
University of Rome, Via della Ricerca Scientifica 1, 00133 Rome, Italy.  
**Title:** *Partition Function of the Supersymmetric 5D Gauge Theory through Instanton Counting*
95. *Sarkisyan, Hayk*  
Russian-Armenian State University, 123 Hovseph Emin street, Yerevan, Armenia.  
**Title:** *Dipole transitions in the quantum ring with Smorodinsky-Winternitz confinement potential.*
96. *Savvidy, George*  
Demokritos Nat.Res.Cent., Ag.Paraskevi, GR-15310 Athens, Greece.  
**Title:** *Non-Abelian Tensor Gauge Fields and Extension of the Standard Model*
97. *Shahinyan, Anna*  
Yerevan State University, Alex Manoogian St. 1; 0025 Yerevan, Armenia.  
**Title:** *Quantum interference and Dissipation in time-modulated nonlinear oscillator.*
98. *Sheikh-Jabbari, Mohammad M.*  
School of Physics, Institute for Research in Fundamental Sciences (IPM), Farmanieh St, P.O.Box 19395-5531 Tehran, Iran.  
**Title:** *A Noncommutative Realization of Cohen-Glashow Very Special Relativity*
99. *Shnir, Yakov*  
School of Mathematics, Trinity College Dublin, Dublin 2, Ireland.  
**Title:** *4+1 dimensional non-spherically symmetric black holes and gravitating solutions of the Yang-Mills theory*
100. *Sissakian, Alexey*  
JINR, Joilot-Courie St. 6, 141980 Dubna, Moscow Region, Russia.
101. *Solomon, Allan*  
Open University and University of Paris VI, 43 The Gardens, WD17 3LN Watford, UK.  
**Title:** *Bell, Group and Tangle*
102. *Stoilova, Nedialka*  
Department of Applied Mathematics and Computer Science, Ghent University, Krijgslaan 281 - S9, 9000 Gent, Belgium.  
**Title:** *Representations of  $osp(1|4)$  and paraboson coherent states)*

103. *Tarloyan, Arthur*  
 Yerevan Physics Institute, Alikhanian Brother St. 2, 0036 Yerevan, Armenia.  
**Title:** *Electromagnetic Casimir forces in the geometry of a wedge with two cylindrical boundaries*
104. *Tchrakian, Tigran*  
 National University of Ireland Maynooth (NUIM).  
**Title:** *Non Abelian Chern-Simons–Higgs Vortices*
105. *Tkachenko, Maxim*  
 Lomonosov Moscow State University, Vilnusskaya-4, 328 117574 Moscow, Russia .
106. *Toppan, Francesco*  
 Centro Brasileiro de Pesquisas Fisicas - CBPF, Rua Dr. Xavier Sigaud 150, Urca, cep 22290-180 Rio de Janeiro, Brazil.  
**Title:** *Supersymmetric Quantum Mechanics: Representations and Invariants*
107. *Tureanu, Anca*  
 Department of Physics, University of Helsinki, PO Box 64, 00014 Helsinki, Finland.  
**Title:** *Noncommutative Quantum Field Theory: A Confrontation of Symmetries*
108. *Unanyan, Razmik*  
 University of Kaiserslautern, Erwin-Schroedinger Str., D-67663 Kaiserslautern, Germany.  
**Title:** *Stationary light and Klein tunneling*
109. *Van der Jeugt, Joris*  
 Ghent University, Dept. of Applied Mathematics, Krijgslaan 281 - S9, 9000 Gent, Belgium.  
**Title:** *Parafermions, parabosons and infinite rank algebras*
110. *Van de Voorde, Liesbet*  
 Ghent University, Dept. of Mathematical Analysis, Galglaan 2 9000 Ghent, Belgium.  
**Title:** *Clifford analysis techniques for higher spin operators*
111. *van Moerbeke, Pierre*  
 Universite Catholique de Louvain & Brandeis University, Mathematiques UCLouvain, 2, chemin du cyclotron B1348 Louvain-la-Neuve, Belgium.  
**Title:** *Non-intersection Brownian motions and integrable systems*
112. *Visinescu, Mihai*  
 Department of Theoretical Physics, National Institute for Physics and Nuclear Engineering - "Horia Hulubei", IFIN-HH P.O.Box M.G.-6, Magurele RO - 077125 Bucharest, Romania.  
**Title:** *Hidden symmetries and superalgebras of Dirac operators on curved spaces*
113. *Volkov, Mikhail*  
 Laboratoire de Mathematiques et Physique Theorique Universite de Tours, Parc de Grandmont, 37200 Tours, France.  
**Title:** *Stationary ring solitons: knots and vortons*
114. *Vourdas, Apostol*  
 Department of Computing, University of Bradford, Bradford BD7 1DP, UK.  
**Title:** *Quantum mechanics on p-adic numbers*

115. *Wendland, Katrin*  
 Inst. f. Analysis und Geometrie, Universitat Augsburg, Institut für Mathematik, D-86135 Augsburg, Germany.  
**Title:** *How are intersection numbers governed by representations of Lie algebras?*
116. *Wolf, Kurt Bernardo*  
 IIMAS-UNAM, Universidad Nacional Autonoma de Mexico, Apartado postal 48-3, 62251 Cuernavaca, Mor. , Mexico.  
**Title:** *Finite systems and their aberrations on phase space*
117. *Yakhno, Alexander*  
 University of Guadalajara, A/P 53, Tlaquepaque, Jalisco, 45500 Guadalajara, Mexico.  
**Title:** *Lie Algebra Contractions and Separation of Variables on Two - Dimensional Hyperboloids*
118. *Yukalov, Vyacheslav*  
 BLTP, JINR, Joilot-Courie St. 6, Dubna, Moscow Region, 141980, Russia.  
**Title:** *Role of Symmetry for Structural Stability of Biological Dynamical Systems*  
**Title:** *Quantum decision theory as quantum theory of measurement*
119. *Yeghikyan, Vahagn*  
 Yerevan State University, Alex Manoogian St. 1; 0025 Yerevan, Armenia.  
**Title:** *Spherical Geometry in Calogero model.*
120. *Zainuddin, Hishamuddin*  
 Laboratory of Computational Sciences & Informatics, Institute for Mathematical Research, Universiti Putra Malaysia.  
**Title:** *Canonical Group Quantization on Triply Punctured Two-Sphere*
121. *Zakrzewski, Wojciech*  
 Department of Mathematical Sciences, University of Durham, DH1 3LE Durham, UK.  
**Title:** *A class of (1+1) dim models which generalise the Sine-Gordon model and some properties of their solutions*
122. *Zakhariev, Boris*  
 Joint Institute for Nuclear Research, LTP, 141980 Dubna, Russia.  
**Title:** *Attractive Potential Barriers and Repulsive Wells.*
123. *Zheng-Johansson, Jane*  
 Institute of Fundamental Physics Research, 61193 Nyköping, Sweden.  
**Title:** *Electrodynamical Particle Model: A Review of Its Experimental Basis and Its Predictions*

# Armenia

**Official name:** Republic of Armenia (RA)

**Capital:** Yerevan (782 B.C.); 1,2 million

**Language:** Armenian (independent branch of the Indo-European language family; 8-6 B.C.)

**Alphabet:** Mesropian (405 A.D.)

**Location:** Western Asia, Transcaucasia, isthmus between Black and Caspian seas, bordering Georgia, Iran, Azerbaijan, Turkey

**Area:** 29,800 sq km (11,490 sq miles)

**Population:** more than 3 million

**Religion:** Christian; Armenian Apostolic (adopted as state religion in 301A.D.)

**Religious centre:** Edjmiadzin

**Political structure:** Presidential Republic (RA)

**Currency:** Armenian Dram (AMD)

**Lakes and rivers:** Lake Sevan, the river Arax, the river Hrazdan

**Highest mountain:** Aragats (4,090m), Ararat (5165m) in Turkey since 1921

**Plant and animal life:** sagebrush, juniper, honeysuckle, beech, oak; boar, jackal, lynx, Syrian Bear

**Natural resources:** copper, molybdenum, zinc, gold, perlite, granite

**Climate:** the climate varies by elevation but is predominantly dry and continental, with long, hot summers and moderate winters

**Information on Armenia (Yerevan)**

**Links:** [www.armeniantourinfo.com](http://www.armeniantourinfo.com)



## Transportation

International guests travelling by air are to arrive at the Zvartnots International Airport. The Airport's website contains a timetable and a detailed information on the airport services ([www.zvartnots.am](http://www.zvartnots.am)). The transportation means from the airport to Yerevan will be provided by the Organising Committee.

### *Transportation in Yerevan*

The best means of transportation is the taxi (100 drams per 1 km) but there are also buses (100 drams), mini-buses (100 drams) and underground (50 drams).

## Hotels

Here are some of the best hotels in Yerevan:

"Armenia Marriott" (Amirian St.1): [www.marriott.com](http://www.marriott.com)

"Ani Plaza" (Sayat-Nova Ave.19): [www.anihotel.com](http://www.anihotel.com)

"Golden Tulip" (Abovian St.14): [www.goldentuliphotelyerevan.com](http://www.goldentuliphotelyerevan.com)

"Congress" (Shahoumian Square): [www.congresshotelyerevan.com](http://www.congresshotelyerevan.com)

"Europe" (Hanrapetutian St.32-38) [www.europe.am](http://www.europe.am)

For more information on hotels in Yerevan please visit [www.visitarm.com/Yerevan\\_map.html](http://www.visitarm.com/Yerevan_map.html)

## Money and Banking

Cash is more widespread than credit cards in Yerevan. Those shops, organisations, etc. which accept credit cards, display the logos of the credit cards on their doors.

Major hotels, restaurants and stores accept Visa and Master cards. It is recommended to call them beforehand in order to check.

You will be able to exchange foreign currency for the Armenian drams (or another currency) at banks, exchange booths, currency exchange desks at hotels. In any case, bring some cash with you - it is better to bring US dollars, Euros or Russian roubles. ATM's are located mostly in the central part of the city:

### **Some of the Banks in Yerevan:**

HSBC Bank (V. Sarkissian St.9; Terian St.66)

ARSH Bank (Abovian St.27, G. Lusavorich St.13)

Ineco Bank (Toumanian St.17)

Cascade Bank (Deghatun St.6)

Unibank (Amirian St.2, Abovian St.26)

Converse Bank (V. Sarkissian St.26/1)

Anelik Bank (M. Baghramian Ave.75)

## **Restaurants, Cafes, Pizzerias**

There are many restaurants and cafes in Yerevan where you will be able to satisfy your hunger and spend a nice time there. Some of them which organizing committee are recommended for lunch are located in the walking distance from the YSU:

”Mimino” (A. Manoogian St. 7) - Armenian and Georgian cuisine

Tavern ”Caucasus” (Hanrapetutyun St.82) - Armenian cuisine

Cilicia ( Hanrapetutyun St.78) - Armenian cuisine

Pizzeria ”Mama Mia” (Sayat - Nova St. 25)

Others are located in the downtown:

Restaurant ”Old Yerevan” (Hyusisayin Ave.2) - Armenian cuisine

Restaurant ”Cactus” (Mashtots Ave.42) - Mexican cuisine

Restaurant ”Gusto” (Abovian St.11) - Italian cuisine

”Cafe de Paris” (Abovian St.23-1)

Cafe ”Central” (Abovian St.20)

Caf ”Re - pe - te” (Tumanian St. 15 3/1) - Mixed cuisine

Tavern ”Our Village” (Sayat-Nova Ave.5) - Armenian cuisine

Marco Polo (Aboviaqn St.1/3)

Triumph (Issahakian St.39)

Dolmama (Pushkin St.10)

Pizza di Roma (Abovian St.1; Toumanian St.32; Issahakian St.12)

*Note that officially smoking is forbidden at public places, but it is not forbidden at most cafes.*

## Souvenir Shops

There are a number of shops where you can buy souvenirs which will remind you of Armenia and its traditions. Besides, there is an open-air place called "Vernisaj" visited almost by every foreigner, where you can find souvenirs and various things connected with Armenia. Most souvenir shops are located on Abovian St., such as:

"Souvenir" (Abovian St.7)

"Armenian Treasures" (Abovian St.1/1, 2-nd floor)

"Gift Shop" (Armenia Marriott Hotel, Shopping Gallery)

"Art Souvenir" (Mashtots Ave.51)

"Heliantus" (Arami St.3, Sil Plaza)

## Museums

**Matenadaran:** Institute of Ancient Manuscripts (Mashtots Ave.53), open Tuesday - Saturday, 10a. - 4p.m.

**Tsitsernakaberd Museum of Genocide** (Tsitsernakaberd Park) open Tuesday - Sunday 11a.m. - 4p.m.

**Museum of Yerevan History** (Argishti St.1), open Tuesday - Friday, 10a.m. - 4p.m.

**Natioal Gallery of Armenia** (Republic Square), open Tuesday - Sunday, 11a.m. - 4p.m.

**Erebuni:** Yerevan City Foundation Museum (Erebuni Ave.38), open Tuesday - Sunday, 10a.m. - 5p.m.

**Martiros Saryan Museum** (Saryan St.3), open Monday - Tuesday/Friday - Sunday, 11a.m. - 4.30p.m.; Wednesday, 11a.m. - 3.30p.m.

**Parajanov Museum** (Dzoragiugh 15/16), open Monday - Sunday, 10a.m. - 5p.m.

**Museum of Modern Art** (Mashtots Ave.7), open Tuesday - Saturday, 10a.m. - 5p.m.; Sunday, 10a.m. - 3p.m.

**Museum of New Experimental Art** (P.Buzand Ave.1/3), Monday - Sunday, 11a.m. - 5p.m.; Saturday, 11a.m. - 3p.m.

## Theatres and Concert Halls

G. Sundukian National State Academic Theatre (G.Lusavorich St.8)

H. Ghaplanian Drama Theatre (Issahakian St.28)

H. Paronian State Musical Comedy Theatre (V.Sarkissian St.4)

Stanislavsky State Russian Drama Theatre (Abovian St.7)

National Academic Opera and Ballet Theatre of Armenia (Toumanian St.54)

Aram Khachaturian Concert Hall (Mashtots Ave.46)

Arno Babajanian Music Hall (Abovian St.2)

Komitas Chamber Music Hall (Issahakian St.1)

## Useful Tips

**Time:** Armenia has one time zone four hours after Greenwich Mean Time.

### **Business Hours:**

*most offices: 9.00 - 18.00 with lunch break at 13.00 - 14.00, from Monday to Friday*

*most banks: 9.00 - 16.00 from Monday to Friday*

*small shops: 10.00 - 19.00, from Monday to Sunday*

*most supermarkets: full time most cafes: 10.00 - 24.00*

Note that some small shops are closed on Sundays.

**Utilities:** Electricity standard is 220 volts, 50 Hz.  
Tap water is chemically safe in Yerevan.

## Important Numbers

<b>Fire/rescue service:</b>	101
<b>Police:</b>	102
<b>Emergency - medical aid:</b>	103
<b>Emergency - gas service:</b>	104
<b>Weather:</b>	186
<b>Time:</b>	110
<b>Airport "Zvartnots":</b>	187
<b>Address information service:</b>	(010) 536970
<b>Information service:</b>	(010) 519 999
<b>Taxi:</b>	
	"VIP": (010)449 899
	"Busy": (010)211 000

## Currency

**Exchange rates set by the Central Bank**

**Updated on 01.08.2008**

**1 USD = 300 AMD**

**1 EUR = 470 AMD**

**1 RUB = 12,6 AMD**

## Weather

The weather is usually hot in Yerevan in August. The average temperature is 36C. You can visit a weather-related website, such as Yahoo Weather, to get more information on weather in Yerevan.

## Some Words in Armenian

Hello	Barev
How are you?	inchpes ek?
Fine thank you	lav em
Very good	shat lav
Can I ?	kareli e ?
I'm happy	oorakh em
I'm hungry	sovats em
What time is it ?	zhamuh kaneesn e
I know	geetem
Excuse me	neretseq
Please	khndrem
Yes	ayo
No	voch, cheh (coll.)
Goodbye	tstesootyoon
Good night	beree geesher
I want	es oozoom em
Cold water	saruh joor
Good appetite	bari akhorjak
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