

## Program of the Conference

| <b>MORNING</b>            |                                       |                                      |  |  |  |   |
|---------------------------|---------------------------------------|--------------------------------------|--|--|--|---|
| Mon. May 3                | 8:30-9:30                             | 9:30 – 10:45                         |  |  | 11:30 – 13:00                            | 13:00-14:30   |
| Plenary Session<br>Room 1 | <i>Registration</i>                   | <u>9:30-10:00</u><br><i>Larijani</i> | <u>10:00-10:45</u><br><i>Nahm</i>                        | <b>B</b><br><b>R</b><br><b>E</b><br><b>A</b><br><b>K</b> | <u>11:30-12:15</u><br><i>Tsintsadze</i>  | <u>12:15-12:45</u><br><i>Arfaei</i>                     |
| Tue. May 4                | <u>9:00 – 10:30</u>                   |                                      |  | <u>11:00 – 12:30</u>                                     |  | <u>13:00-14:30</u>                                      |
| Plenary Session<br>Room 1 | <u>9:00-9:45</u><br><i>N. Dadhich</i> | <u>9:45-10:30</u><br><i>Moniez</i>   | <b>B</b><br><b>R</b><br><b>A</b><br><b>E</b><br><b>K</b> | <u>11:00-11:45</u><br><i>Riazuddin</i>                   | <u>11:45-12:30</u><br><i>Golestanian</i> | <i>Lunch</i>  |
| Wed. May 4                | <u>9:00 – 10:30</u>                   |                                      |  | <u>11:00 – 12:30</u>                                     |  | <u>12:30-13:00</u>                                      |
| Plenary Session<br>Room 1 | <u>9:00-9:45</u><br><i>Qadir</i>      | <u>9:45-10:30</u><br><i>Sahni</i>    | <b>B</b><br><b>R</b><br><b>E</b><br><b>A</b><br><b>K</b> | <u>11:00-11:45</u><br><i>Sidharth</i>                    | <u>11:45-12:30</u><br><i>Alishahiha</i>  | <b>Future of Regional Conferences</b><br><i>Ardalan</i> |
| Thu. May 6                | <u>9:45 – 10:30</u>                   |                                      |  | <u>11:00 – 13:00</u>                                     |  |   |
| Plenary Session<br>Room 1 | <i>Rahimi-Tabar</i>                   |                                      | <b>B</b><br><b>R</b><br><b>E</b><br><b>A</b><br><b>K</b> | <b>1<sup>st</sup> Session</b><br><b>Room 1</b>           | <u>11:00-11:30</u><br><i>Parvizi</i>     | <u>11:30-12:00</u><br><i>Angelantonj</i>                |
|                           |                                       |                                      |  | <b>2<sup>nd</sup> Session</b><br><b>Room 2</b>           | <u>11:00-11:30</u><br><i>Sepangi</i>     | <u>12:00-12:30</u><br><i>Sharif</i>                     |
|                           |                                       |                                      |  | <b>3<sup>rd</sup> Session</b><br><b>Room 3</b>           | <u>11:00-11:30</u><br><i>Maraghechi</i>  | <u>12:00-12:30</u><br><i>Abbasi</i>                     |
|                           |                                       |                                      |  |  | <u>12:30-13:00</u><br><i>Popovych</i>    | <u>12:30-13:00</u><br><i>Eshraghi</i>                   |
|                           |                                       |                                      |  |  | <i>Lunch</i>                             |   |

| AFTERNOON                         |                                    |                                    |                                     |                                  |   |  |                                  |                                  |  |                                 |  |
|-----------------------------------|------------------------------------|------------------------------------|-------------------------------------|----------------------------------|---|--|----------------------------------|----------------------------------|--|---------------------------------|--|
| Mon. May 3                        | 14:30 – 16:30                      |                                    |                                     |                                  |   | 17:30 – 19:30                            |                                  |                                  |  |                                 |  |
| 1 <sup>st</sup> Session<br>Room 1 | 14:30-15:00<br><i>Fayyazuddin</i>  | 15:00-15:30<br><i>Varadarajan</i>  | 15:30-16:00<br><i>Hussain</i>       | 16:00-16:30<br><i>Kembhavi</i>   | <i>B<br/>R<br/>E<br/>A<br/>K</i>        | 17:30-18:00<br><i>Arash</i>              | 18:00-18:30<br><i>Deldar</i>     | 18:30-19:00<br><i>Mirjalili</i>  | 19:00-19:30<br><i>Mamadov</i>          |                                 |  |
| 2 <sup>nd</sup> Session<br>Room 2 | 14:30-15:00<br><i>Lukierski</i>    | 15:00-15:30<br><i>Mostafazadeh</i> | 15:30-16:00<br><i>Jafarizadeh</i>   | 16:00-16:30<br><i>Guler</i>      |   | 17:30-18:00<br><i>Siddiqui</i>           | 18:00-18:30<br><i>Tekin</i>      | 18:30-19:00<br><i>Ahmedov</i>    | 19:00-19:30<br><i>Kashif</i>           |                                 |  |
| 3 <sup>rd</sup> Session<br>Room 3 | -----                              |                                    |                                     |                                  |   | 17:30-18:00<br><i>Salimullah</i>         | 18:00-18:30<br><i>Mamun</i>      | 18:30-19:00<br><i>Shah</i>       | 19:00-19:30<br><i>Pahlavani</i>        |                                 |  |
| Tue. May 4                        | 14:30 – 16:30                      |                                    |                                     |                                  |   | 17:30 – 19:30                            |                                  |                                  |  |                                 |  |
| 1 <sup>st</sup> Session<br>Room 1 | 14:30-15:00<br><i>Kiritsis</i>     | 15:00-15:30<br><i>Garousi</i>      | 15:30-16:00<br><i>Minasian</i>      | 16:00-16:30<br><i>Hassan</i>     |   | 17:30-18:00<br><i>Ananikyan</i>          | 18:00-18:30<br><i>Kobakhidze</i> | 18:30-19:00<br><i>Sadeghi</i>    | 19:00-19:30<br><i>Naghiyev</i>         |                                 |  |
| 2 <sup>nd</sup> Session<br>Room 2 | 14:30-15:00<br><i>Tolstoy</i>      | 15:00-15:30<br><i>Bolorizadeh</i>  | 15:30-16:00<br><i>Ghulghazaryan</i> | 16:00-16:30<br><i>Kochan</i>     |   | 17:30-18:00<br><i>Kupi</i>               | 18:00-18:30<br><i>Arbabi</i>     | 18:30-19:00<br><i>Rahvar</i>     | 19:00-19:30<br><i>Alimohammadi</i>     |                                 |  |
| 3 <sup>rd</sup> Session<br>Room 3 | 14:30-15:00<br><i>Azadi</i>        | 15:00-15:30<br><i>Esfahanian</i>   | 15:30-16:00<br><i>Javanmard</i>     | 16:00-16:30<br><i>Ghader</i>     |   | 17:30-17:55<br><i>A. R.<br/>Moshfegh</i> | 17:55-18:20<br><i>Vesaghi</i>    | 18:20-18:45<br><i>Mkhitarian</i> | 18:45-19:10<br><i>Parfitt</i>          | 19:10-19:35<br><i>Zarbaliev</i> |  |
| Wed. May 5                        | 14:30 – 16:30                      |                                    |                                     |                                  |   | 17:30 – 19:30                            |                                  |                                  |  |                                 |  |
| 1 <sup>st</sup> Session<br>Room 1 | 14:30-14:55<br><i>Banerjee</i>     | 14:55-15:20<br><i>Bietenholz</i>   | 15:20-15:45<br><i>Sadooghi</i>      | 15:45-16:10<br><i>Haghighat</i>  | 16:10-16:35<br><i>Tureanu</i>           | 17:30-17:55<br><i>Shtanov</i>            | 17:55-18:20<br><i>Shojai</i>     | 18:20-18:45<br><i>Yavartanoo</i> | 18:45-19:10<br><i>Ghodsi</i>           | 19:10-19:35<br><i>Mosaffa</i>   |  |
| 2 <sup>nd</sup> Session<br>Room 2 | 14:30-15:00<br><i>Chavchanidze</i> | 15:00-15:30<br><i>Akhmedov</i>     | 15:30-16:00<br><i>Khorramian</i>    | 16:00-16:30<br><i>Loran</i>      | -----                                   |  |                                  |                                  |  |                                 |  |
| 3 <sup>rd</sup> Session<br>Room 3 | 14:30-14:55<br><i>Japaridze</i>    | 14:55-15:20<br><i>Langari</i>      | 15:20-15:45<br><i>Jafarpour</i>     | 15:45-16:10<br><i>Cahangirli</i> | 16:10-16:35<br><i>H.R.<br/>Moshfegh</i> | 17:30-17:55<br><i>Asgarzade</i>          | 17:55-18:20<br><i>Hosseini</i>   | 18:20-18:45<br><i>Irajizad</i>   | 18:45-19:10<br><i>Taghav-<br/>inia</i> | 19:10-19:35<br><i>Ohanyan</i>   |  |
| Thu. May 6                        | EXCURSION                          |                                    |                                     |                                  |   |  |                                  |                                  |  |                                 |  |

## List of Speakers in the Plasma Session

### Plenary Speakers:

1. N. Tsintsadze: Sound waves in plasmas in the presence of strong magnetic field

### Speakers in the parallel sessions:

1. H. Abbasi: Spot size effects on the laser plasma interaction features
2. H. Eshraghi: Zero-spirality in heliciteless ideal flows
3. M. A. A. Mamun: Dusty plasma physics: New horizons
4. B. Maraghechi: Relativistiv Raman free electron lasers with self-fields
5. M. R. Pahlavani: Emission angle dependence of fission fragments spin in  $B^{10\&11} + Th^{232}$  and  $Np^{237}$  fusion-fission reactions
6. R. Popovych: Group Classification of nonlinear Schroedinger equations with potentials
7. M. Salimullah: An overview of physics of dusty plasmas
8. H. A. Shah: Non Maxwellian distributions in space plasmas

## **List of Speakers in the Condensed Matter Session**

### **Plenary Speakers:**

1. R. Golestanian: Biomolecular electrostatics: A fascinating story
2. M. R. Rahimi-Tabar: Regeneration of stochastic process

### **Speakers in the parallel sessions:**

1. M. Alimohammadi: General integrable reaction-diffusion process
2. N. Ananikyan: Arnold tongues in one and multi-dimensional mapping of physical systems
3. I. Asgharzade: Two-band Ginzburg-Landau theory and its application to recently discovered superconductors
4. Z. A. Canhangirli: Ab initio and Hubbard-Sham model calculation of band structure of GeSe
5. A. A. Hosseini: Inverse photo emission spectroscopy
6. A. Irajizad: Structural and physical properties of porous silicon as a gas sensor
7. F. Jafarpour: Phase transition and shock formation in reaction-diffusion systems: numerical approach
8. G. Japaridze: Magnetic field induced transitions in spin ladders with ferromagnetic legs
9. A. Langari: Charge and magnetization plateaux in strongly correlated systems
10. I. Mehdiyev: Surface freezing transition in liquid Ga-Bi alloys
11. V. Mkhitaryan: Bethe Ansatz for the spin-1/2 staggered XXZ-model
12. A. R. Moshfegh: Physics and technology of thin films
13. H. R. Moshfegh: Uniform electron gas fluid in LOCV framework
14. V. Ohanyan: Magnetization plateaux in the Ising limit of the multiple spin exchange model on diamond plaquette chain
15. D. Parfitt: Exactly solvable problems for two-dimensional excitons
16. N. Taghavinia: Control of the size of nanoparticles using UV illumination
17. A. Vesaghi: DLC
18. M. Z. Zarbaliev: STM and surface photoconductivity of InSe, and GaSe semiconductors

## List of Speakers in the General Relativity and Astrophysics Session

### Plenary Speakers:

1. N. Dadhich: Universalization as a physical guiding principle
2. M. Moniez: Does transparent hidden matter generate optical scintillation?
3. A. Qadir: Observing black holes
4. V. Sahni: The mysterious nature of dark energy

### Speakers in the parallel sessions:

1. H. Ahmedov: Energy momentum tensor in triangular regions
2. S. Arbabi: Voids in the large scale structure of the universe
3. M. H. Dehghani: Magnetic rotating solutions in higher curvature gravity and the counterterm method
4. A. R. Kashif: Spherically symmetric static spacetime and their classification by Ricci inheritance symmetries
5. A. Kembahavi: (Monday or Tuesday) Virtual Observatories
6. G. Kupi: Degenerate fermionic dark matter in galaxies
7. S. Rahvar: Galactic MACHO budget: Problem and possible solution with the abundant Brown Dwarfs
8. K. Saifullah: Ricci conformal collineations for Static spacetimes
9. H. Sepangi: Unification of Higgs and Maxwell fields in higher dimensional gravity
10. M. S. Sharif: Kinematic self-similar solutions
11. F. Shojai: Causal quantum gravity in terms of new variables
12. Y. Shtanov: Some features of braneworld cosmology
13. A. A. Siddiqui: Similarities between time-like geodesics in a naked Reissner-Nordstrom singularity background  
and the behavior of electrons in quantum theory
14. B. Tekin: Energy in higher curvature gravity model
15. M. Varadarajan: Photons and gravitons from loops

## List of Speakers in the hep-ph and hep-th Sessions

### Plenary Speakers:

#### **hep-ph**

1. H. Arfaei: Iranian collaboration with CERN and CMS
2. Riazuddin: Neutrino Physics: some remarks on the form and origin of neutrino mass
3. B. G. Sidharth: Glimpses of new physics

### Speakers in the parallel sessions:

#### **hep-ph**

1. F. Arash: Hadronic structure from a basic structure
2. S. Deldar: QCD confinement and fat-center-vortices model
3. Fayazzudin: Electroweak unification based on the gauge group  $SU_L(4)$
4. R. Ghulghazaryan: Partition function zeros of potts models on recursive lattices
5. A. Khorramian: The rules of higher order corrections in determining polarized parton densities in the nucleon
6. S. Mamadov: AdS interpretation of two and three point correlation function of QED
7. A. Mirjalili: Investigating the QCD scale dependence of total cross section for heavy quark production in p-pbar collisions

### Plenary Speaker:

#### **hep-th**

1. M. Alishahiha: String theory
2. W. Nahm: TBA (Thernodynamic Bethe Ansatz)

### Speakers in the parallel sessions:

#### **hep-th**

1. E. T. Akhmedov: How perturbative expansion in QFT is related to the simplicial string theory
2. C. Angelantonj: Orientifold, supersymmetry breaking and cosmological constant
3. R. Banerjee: Aspects of noncommutative gauge theories and their commutative equivalents
4. W. Bietenholz: A non-perturbative study of the non-commutative  $\varphi^4$  model
5. M. A.Bolorizadeh: A fully quantum mechanical approach to electron capture as a three body problem
6. G. Chavchanidze: Non-Noether symmetries in integrable PDEs
7. M. R. Garousi: Cosmology from rolling massive scalar field on the anti-D3 brane of de Sitter vacua
8. A. Ghodsi: Braneworld inflation
9. Y. Guler: On quantization of constrained systems
10. M. Haghigat: Lorentz invariant noncommutative QED and Bjorken scaling

11. F. Hassan: Worldsheet boundary couplings in curved backgrounds and worldvolume covariance
12. F. Hussain: Bounds on four-fermion contact interactions induced by string resonances
13. A. Imaanpur: Deformed instantons
14. M. A. Jafarizadeh: Quantum tomography based on Banach space wavelets
15. E. Kiritsis: String Dynamics in pp-wave background
16. A. Khobakhidze: Unification in higher dimensions
17. D. Kochan: Differential gorms and worms
18. F. Loran: Non-Abelianizable first class constraints
19. J. Lukierski: Quantum deformations of relativistic symmetries: recent developments
20. R. Minasian: Mirror symmetry with fluxes
21. S. Moghimi-Araghi: Correlation functions in LCFT's using AdS/LCFT correspondence
22. A. Mosaffa: N=1 G(2) super Yang-Mills theory and compactification to three dimensions
23. A. Mostafazadeh: An explicit construction of the Hilbert space and observables in relativistic QM of scalar fields and quantum cosmology
24. S. Naghiev: Exactly solvable finite-difference models of the linear harmonic oscillator
25. S. Parvizi: N=1/2 SUSY on AdSxS<sub>2</sub>
26. J. Sadeghi: Connection between N=1 superconformal algebra and D(2/1;  $\alpha$ ) in zero mode
27. N. Sadooghi: Effective superpotential of supersymmetric noncommutative U(1)
28. V. Tolstoy: Quantum deformation of Jordanian type for Lie superalgebras
29. A. Tureanu: Some aspects of quantum field theory on noncommutative space-time
30. H. Yavartanoo: Multi-spin string solutions in AdS Black hole and confining backgrounds

## **List of Speakers in the Meteorology Session**

1. M. Azadi: The process of numerical weather prediction
2. V. Esfahanian: Numerical simulation of unsteady shallow water equations based on proper orthogonal decomposition
3. S. Ghader: Super compact spatial differencing for the linear and nonlinear geophysical fluid dynamics problems
4. S. Javanmard: Theory and numerical modeling of physical mechanisms in cloud seeding