

**SCIENTIFIC COMMITTEE**

Ioannis BAKAS, Greece  
Glenn BARNICH, Belgium  
Constantin BIZDADEA, Romania  
Lars BRINK, Sweden  
Goran DJORDJEVIC, Serbia  
Goran SENJANOVIC, Italy  
George ZOUPANOS, Greece  
Mihai VISINESCU, Romania

**LOCAL ORGANIZING COMMITTEE**

Eugen CIOROIANU, Romania  
Radu CONSTANTINESCU, Romania  
Dan GRECU, Romania  
Carmen IONESCU, Romania  
Odile SALIU, Romania  
Mihail SANDU, Romania  
Dumitru VULCANOV, Romania

**INTERNATIONAL ORGANIZING COMMITTEE**

Boyka ANEVA, Bulgaria  
Xavier BEKAERT, France  
Marian MILEKOVIC, Croatia  
Ljubisa NESIC, Serbia  
Voja RADOVANOVIC, Serbia

**LIST OF PARTICIPANTS**

1. Ciprian ACATRINEI, Romania
2. Boyka ANEVA, Bulgaria
3. Ionela BADEA, Romania
4. Ioannis BAKAS, Greece
5. Glenn BARNICH, Belgium
6. Xavier BEKAERT, France
7. Cosmina BILDEA, Romania
8. Constantin BIZDADEA, Romania
9. Lars BRINK, Sweden
10. Mădălin BUNOIU, Romania
11. Virgil CANCEA, Romania
12. Irinel CAPRINI, Romania
13. Rodica CIMPOIASU, Romania
14. Eugen CIOROIANU, Romania
15. Radu CONSTANTINESCU, Romania
16. Ion COTAESCU, Romania
17. Kostadin DELCHEV, Bulgaria
18. Dragoljub DIMITRIJEVIC, Serbia
19. Marija DIMITRIJEVIC, Serbia
20. Goran DJORDJEVIC, Serbia
21. Branko DRAGOVICH, Serbia
22. Andreea ENCULESCU, Romania
23. Renato FEDELE, Italy
24. Peter FREUND, USA
25. Georgi GOTSKOV, Bulgaria
26. Alexandru GRECU, Romania
27. Dan GRECU, Romania
28. Dan GRIGORE, Romania
29. Marc HENNEAUX, Belgium
30. Carmen IONESCU, Romania
31. Aurelian ISAR, Romania
32. Boyan KOSTADINOV, Bulgaria
33. Marija MARIJANOVIC, Serbia
34. Andrei MICU, Romania
35. Milan MILOSEVIC, Serbia
36. Dimitar MLADENOV, Bulgaria
37. Laura MORARU, Romania
38. Daniela NEACSA, Romania
39. Irina NEDELEA, Romania
40. Iulian NEGRU, Romania
41. Marcela POPESCU, Romania
42. Paul POPESCU, Romania
43. Kalin PRESKANOV, Bulgaria
44. Apolodor RADUTA, Romania
45. Odile SALIU, Romania
46. Mihail SANDU, Romania
47. Silviu SARARU, Romania
48. Marko SIMONOVIC, Serbia
49. Paula STANCIU, Romania
50. Ligia STANCIU-OPREAN, Romania
51. Jelena STANKOVIC, Serbia
52. Mihai STOICESCU, Romania
53. Iulian TANASE, Romania
54. Mirela TOMA, Romania
55. Mihaela UDRISTIOIU, Romania
56. Anca VISINESCU, Romania
57. Mihai VISINESCU, Romania
58. Dumitru VULCANOV, Romania
59. Gheorghe ZET, Romania
60. Stefan ZHECHEV, Bulgaria
61. George ZOUPANOS, Greece

**INVITED LESSONS**

L1 Marc HENNEAUX - Deformations of Einstein theory of gravity à la Horava

L2 Glenn BARNICH - Aspects of the BMS/CFT correspondence

L3 Ioannis BAKAS - Horava-Lifshitz gravity and geometric flows I

L4 Ioannis BAKAS - Horava-Lifshitz gravity and geometric flows II

L5 George ZOUPANOS - New challenges in unified theories I

L6 George ZOUPANOS - New challenges in unified theories II

L7 Marija DIMITRIJEVIC - Non (anti)commutative field theories: model building and renormalizability properties

L8 Apolodor RADUTA - Collective properties of octupole deformed nuclei

L9 Renato FEDELE - Nonlinear and collective 3D aspects related to the controlling of Bose-Einstein condensate

L10 Irinel CAPRINI - Perturbative QCD and the determination of  $\alpha_s$

L11 Branko DRAGOVICH - Nonlocal field theory and p-adic strings I

L12 Branko DRAGOVICH - Nonlocal field theory and p-adic strings II

L13 Ciprian ACATRINEI - Surprises in noncommutative dynamics

L14 Dan GRIGORE - Off-shell fields and quantum anomalies

L15 Mihai VISINESCU - Higher-order symmetries: gauge covariant Hamiltonian approach and gravitational anomalies

L16 Andrei MICU - Heterotic type IIA duality with fluxes

L17 Lars BRINK - Maximal superconformal theories

L18 Goran DJORDJEVIC - Kasner type models in real and p-adic cosmology

L19 Xavier BEKAERT - Singletons and higher symmetry algebras: definitions and applications I

L20 Xavier BEKAERT - Singletons and higher symmetry algebras: definitions and applications II

7<sup>th</sup> Spring School and Workshop on

Quantum Field Theory & Hamiltonian Systems

10-15 May 2010, Craiova & Călimănești, Romania

L21 Gheorghe ZET - Gauge theories on a noncommutative Poisson manifold as space-time

L22 Aurelian ISAR - Evolution of continuous variable entanglement in open quantum systems

L23 Ion COTAESCU - Polarized vector bosons on the de Sitter expanding universe

L24 Peter FREUND - not decided yet

L25 Marcela POPESCU - Multi-time Lagrangians and Hamiltonians

L26 Paul POPESCU - Foliations related to Lagrangians and Hamiltonians

L27 Radu CONSTANTINESCU - Chaos and stabilizing mechanisms for Yang-Mills mechanical models

L28 Odile SALIU - Linearized gravity and its dual formulations: yes-go results on their consistent couplings

**INVITED WORKSHOP SESSIONS**

W1 Anca VIȘINESCU - Two component 1D long wave - short wave interaction in a Madelung fluid description

W2 Dragoljub DIMITRIJEVIC - p-adic pseudodifferential operator(s)

W3 Dimitar MLADENOV - Hamiltonian reduction of Yang-Mills fields with symmetries

W4 Alexandru GRECU - Short laser pulse propagation in nonlinear media from NLSE to SPE

W5 Rodica CIMPOIASU - Lie symmetries and inverse problem for nonlinear transfer equation

W6 Eugen CIOROIANU - Interactions between Weyl graviton and massless spin-3/2 particles. No-go results

W7 Silviu SARARU - First-class approaches of the second-class systems. The example of massive forms

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**PROGRAM**

**Monday, May 10, 2010 (Craiova)**

- 10:00-11:30 (Blue Hall, University of Craiova)  
Doctor Honoris Causa Title Award to  
Professor Marc HENNEAUX, ULB, Belgium
- SESSION I – Art Museum of Craiova, Mirror Hall
- 15:00-15:15 Opening session
- 15:15-16:00 Lesson 1 (L1)
- 16:00-16:45 Lesson 2 (L2)
- 20:00 (Emperor's House restaurant)  
Welcome party in Craiova

**Tuesday, May 11, 2010 (Calimanesti from now on)**

- 10:00-12:30 Craiova-Calimanesti by bus
- 12:30-15:00 Arrival, check-in, lunch
- 15:00-15:45 Lesson 3 (L3)
- 15:45-16:30 Lesson 4 (L4)
- 18:00 Outdoor Party – Barbecue

**Wednesday, May 12, 2010**

- 8:00-9:00 Breakfast
- 9:00-9:45 Lesson 5 (L5)
- 9:45-10:30 Lesson 6 (L6)
- 10:30-11:00 Coffee break
- 11:00-11:45 Lesson 7 (L7)
- 11:45-12:30 Lesson 8 (L8)
- 12:30-15:00 Lunch & nap
- 15:00-15:45 Lesson 9 (L9)
- 15:45-16:30 Lesson 10 (L10)
- 16:30-17:00 Coffee break
- 17:00-17:45 Lesson 11 (L11)
- 17:45-18:30 Lesson 12 (L12)
- 19:30 Dinner

## 7<sup>th</sup> Spring School and Workshop on

### Quantum Field Theory & Hamiltonian Systems

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#### Thursday, May 13, 2010

|             |                 |
|-------------|-----------------|
| 8:00-9:00   | Breakfast       |
| 9:00-9:45   | Lesson 13 (L13) |
| 9:45-10:30  | Lesson 14 (L14) |
| 10:30-11:00 | Coffee break    |
| 11:00-11:45 | Lesson 15 (L15) |
| 11:45-12:30 | Lesson 16 (L16) |
| 12:30-15:00 | Lunch & nap     |
| 15:00-15:20 | Workshop 1 (W1) |
| 15:20-15:40 | Workshop 2 (W2) |
| 15:40-16:00 | Workshop 3 (W3) |
| 16:00-16:20 | Workshop 4 (W4) |
| 16:20-16:40 | Workshop 5 (W5) |
| 16:40-17:10 | Coffee break    |
| 17:10-17:30 | Workshop 6 (W6) |
| 17:30-17:50 | Workshop 7 (W7) |
| 19:30       | Dinner          |

#### Friday, May 14, 2010

|             |  |
|-------------|--|
| 8:00-9:00   | Breakfast  |
| 9:00-9:45   | Lesson 17 (L17)  |
| 9:45-10:30  | Lesson 18 (L18)  |
| 10:30-11:00 | Coffee break   |
| 11:00-11:45 | Lesson 19 (L19)  |
| 11:45-12:30 | Lesson 20 (L20)  |
| 12:30-15:00 | Lunch & nap  |
| 16:30       | Excursion – guided tour of Sibiu-Hermannstadt,<br>2007 European Cultural Capital |

#### Saturday, May 15, 2010

|             |                 |
|-------------|-----------------|
| 8:00-9:00   | Breakfast       |
| 9:00-9:45   | Lesson 21 (L21) |
| 9:45-10:30  | Lesson 22 (L22) |
| 10:30-11:00 | Coffee break    |
| 11:00-11:45 | Lesson 23 (L23) |
| 11:45-12:30 | Lesson 24 (L24) |
| 12:30-15:00 | Lunch & nap     |
| 15:00-15:45 | Lesson 25 (L25) |
| 15:45-16:30 | Lesson 26 (L26) |
| 16:30-17:00 | Coffee break    |
| 17:00-17:45 | Lesson 27 (L27) |
| 17:45-18:30 | Lesson 28 (L28) |
| 18:30-18:45 | Closing session |
| 19:30       | Farewell party  |