



**BW2005 WORKSHOP**  
**II Southeastern European Workshop**  
**Challenges Beyond the Standard Model**



**19-23 May 2005**  
**Vrnjačka Banja, Serbia**

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## **Second announcement**

### **ORGANIZERS**

[Department of Physics, University of Nis](#)  
[Max Planck Institute for Physics Munich](#)  
[Ludwig-Maximilians-University, Muenchen, Germany](#)

**Local coorganizer: Section of Serbian Physical Society-Niš**

### **General Information**

The Workshop will be held in Vrnjačka Banja from 19th to 23rd May 2005. The purpose of the Workshop is to foster and improve the communication among the researchers in the Balkan region and also between them and their colleagues elsewhere in the world.

The principal idea is to create an opportunity for the researchers working in the general area of high energy physics and related topics at different institutions in the South-East European countries to showcase their work and present their results.

### **Topics**

- **Strings, superstrings and string field theory**
- **Supersymmetry and conformal field theory**
- **Noncommutative field theory**
- **D-branes and matrix models**
- **Cosmology, quantum gravity, extra dimensions**
- **Particle physics: theory and (LHC) phenomenology**
- **Noncommutative, q-deformed and nonarchimedean models**
- **Integrable systems**

## Advisory Committee

Advisory Committee consists of the all members of the Steering-Advisory Committee of the Southeastern European Network in Mathematical and Theoretical Physics (SEENET-MTP, <http://seenet-mtp.pmf.ni.ac.yu/>):

G. Altarelli (CERN)  
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and

I. Antoniadis (CERN)  
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## Organizing Committee

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M. Visinescu (Bucharest)

## Secretaries

D. Dimitrijevic (Nis)  
F. Meyer (Munich)

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**E-mail: [bw2005@pmf.ni.ac.yu](mailto:bw2005@pmf.ni.ac.yu)**  
**<http://www.pmf.ni.ac.yu/bw2005/>**

## Preliminary list of lecturers

- D. Aleynikov** (Minsk, Belarus): *Seiberg-Witten equations: symmetries, particular solutions*
- B. Bajc** (Ljubljana, Slovenia): *Fermion masses and mixings in  $SO(10)$  GUTs*
- D. Baleanu** (Ankara, Turkey): *Difference discrete and fractional variational principles: present and perspectives*
- V. Bardek** (Zagreb, Croatia): *2D Calogero model in the collective-field approach*
- K. Behrndt** (Munich, Germany): *Flux compactification of type IIB supergravity*
- R. Blumenhagen** (Munich, Germany): *Recent progress with intersecting D-brane models*
- M. Buric** (Belgrade, SCG): *TBA*
- R. Constantinescu** (Craiova, Romania): *Symmetries and integrability for non-autonomous Hamiltonian systems*
- M. Dimitrijevic** (Munich, Germany/ Belgrade, SCG): *Lorentz symmetry on deformed spaces*
- D. Djordjevic** (Nis, SCG): *Characterizations of normal, hyponormal and EP operators*
- G. Djordjevic** (Nis, SCG): *Extra dimensions and ultrametricity*
- E. Dudas** (Orsay, France): *String and field theory landscape*
- J. Evslin** (Bruxelles, Belgium): *A correction to the RR tadpole cancellation condition*
- D. Ghoshal** (Allahabad, India): *Towards p-adic string in constant B-field*
- R. Gopakumar** (Allahabad, India): *Free field theory as a string theory*
- D.R. Grigore** (Bucharest, Romania): *Massive supersymmetric quantum gauge theory*
- B. Jurco** (Munich, Germany): *Gerbs and branes*
- G. Lazarides** (Thessaloniki, Greece): *Mixed density perturbations from the inflaton and the curvaton*
- S. Meljanac** (Zagreb, Croatia): *Generalized Calogero models and conformal symmetry*
- F. Meyer** (Munich, Germany): *Gravity on deformed spaces*
- A. Morozov** (Moscow, Russia): *Challenges of matrix models*
- S. Mukhi** (Mumbai, India): *TBA*
- A. Nikolaidis** (Thessaloniki, Greece): *Extra dimensions and strong gravity*
- P. Prester** (Zagreb, Croatia): *Vacuum string field theory*
- S. Randjbar-Daemi** (Trieste, Italy): *TBA*
- A. Samsarov** (Zagreb, Croatia): *Matrix formulation of Calogero model and Laughlin-like states*
- K. Sfetsos** (Patras, Greece): *TBA*
- Z. Skoda** (Zagreb, Croatia): *Coherent states and noncommutative geometry*
- C. Sochichiu** (Frascati, Italy): *Dynamical models of (super) Yang-Mills anomalous dimensions*
- H. Steinacker** (Munich, Germany): *A non-perturbative approach to the non-commutative  $\phi^4$  model*
- F. Toppan** (Rio de Janeiro, Brazil): *Constrained generalized supersymmetries*
- D. Tsimpis** (Munich, Germany): *(Mem)branes in curved superspace*
- M. Visinescu** (Bucharest, Romania): *Gravitational and axial anomalies for generalized Euclidean Taub-NUT metrics*
- J. Wess** (Munich, Germany): *The deformation of the diffeomorphism algebra*
- G. Zoupanos** (Heidelberg, Germany): *Physics from fuzzy extra dimensions?*

The time allowed for the invited talks is expected to be 40-45 minutes. The time for oral presentations of the participants is expected to be 20-25 minutes. There is a possibility for one poster session.

The organizers are going to publish a Book of Extended Abstracts. Abstracts should be prepared (and sent by e-mail) in LaTeX2e `Article` style without modifications or new definitions (for instructions, see <http://www.pmf.ni.ac.yu/bw2005/cont.htm>). The preferred length of Extended Abstracts is between 1 and 2 pages.

## Accommodation

Vrnjačka Banja is the most famous spa in Serbia. Natural beauty and curative thermal waters have been known and used since Roman times. Accommodation and lectures, as well as other activities, will be held at the Poštanski dom (<http://www.pttdom.co.yu/>).

## Travel

The nearest international airport is in Belgrade. More information about traveling to/from Belgrade and others you can find at <http://www.beograd.org.yu/>.

Vrnjačka Banja can be reached (<http://www.pttdom.co.yu/English/Location/Routes/routes.html>):

- by highway (E-75) Nis-Belgrade, exit at Pojate (69 km), then by regional road (E-761) via Kruševac to Vrnjačka Banja (66 km);
- by the Ibar main road and regional road (E-763) via Gornji Milanovac and regional road (E-761) via Kraljevo to Vrnjačka Banja;
- by bus from Belgrade Bus Station (about 15 departures/day; price: about 7 EUR);
- by bus from Niš Bus Station (11 departures/day; price: about 5 EUR);
- by train from Belgrade to Stalać, and then by a local bus.

Bus timetables:

- From Niš to Vrnjačka Banja: 5.30, 6.10, 7.20, 8.40, 8.15, 10.00, 10.30, 11.20, 12.05, 13, 14.30, 16.00, 16.30, 18.30, 19.30, 21.00
- From Belgrade to Vrnjačka Banja: 6.00, 6.45, 7.30, 7.45, 9.00, 9.20, 10.30, 12.00, 12.30, 14.00, 15.30, 16.00, 17.00, 18.00.

How to reach "Poštanski dom"? Please visit:

<http://www.pttdom.co.yu/English/Location/location.html>.

**IMPORTANT: Certain nationalities need visas for a stay in Serbia. Please check whether you need visas (<http://www.smip.sv.gov.yu/Visas/VisasR.htm>).**

## Conference Fee and Support

The Organizing Committee has to require the payment of 90 Euros (40 Euros for accompanying person and PhD students) as conference fee before April 30, 2005 and 100 Euros (50 Euros for accompanying person and PhD students) after that. It covers: conference material, book of abstracts, social program and conference dinner. The payment can be done at the beginning of the conference during the registration. Participants from Serbia will pay conference fee in dinars.

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KOTIZACIJA BW2005

**The 50% discount is offered to:**

- Participants of the BW2003 and registered participants of the BW2005 from the SEE region before March 31 2005,
- Members of Steering-Advisory Committee (<http://seenet-mtp.pmf.ni.ac.yu/advisory.htm>) and Initiative Committee (<http://seenet-mtp.pmf.ni.ac.yu/initiative.htm>) of the SEENET-MTP (<http://seenet-mtp.pmf.ni.ac.yu/>).

The organizers will try to waive a number of the participants from the conference fee.

The number of participants is expected to be around 50. The organizers will cover living expenses for the invited participants. Limited additional funds should be available for a few participants, to be selected by the Organizers. Younger colleagues (under 40 years) are encouraged to apply for the EWTF grant (<http://www.pmf.ni.ac.yu/bw2005/ewtf.htm>).

Travel expenses will be covered partially, depending on the level of international support and the availability of funds.

## **Deadlines:**

**Registration and request for financial support – March 31, 2005.**

**Abstracts – April 30, 2005.**

## **Sponsors**

The following institutions have announced or confirmed financial support of the Workshop:

**UNESCO - ROSTE (Regional Bureau for Science in Europe, Venice)**  
**ICTP (The Abdus Salam International Centre for Theoretical Physics, Italy)**  
**EPS (European Physical Society)**  
**SMSEP (Serbian Ministry of Science and Environment Protection)**  
**DFG (Deutsche Forschungsgemeinschaft, Germany)**  
**Faculty of Sciences, Nis**