



## **Carpathian Summer School of Physics 2010**

*Exotic Nuclei and Nuclear/Particle Astrophysics (III)*

*“From nuclei to stars”*

*June 20 – July 3, 2010, Sinaia, Romania*

### **Second circular**

#### **Organizers**

*“Horia Hulubei” National Institute for Physics and Nuclear Engineering (IFIN-HH) and Horia Hulubei Foundation (FHH), Bucharest-Magurele, Romania, Cyclotron Institute, Texas A&M University (TAMU), College Station, Texas, USA, The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy*

#### **Topics:**

- Exotic Nuclei
- Experiments with rare isotope beams
- Double beta decay
- Issues in nuclear astrophysics
- Nucleosynthesis
- Neutrino properties and new neutrino experiments
- The sun and solar neutrinos
- Supernova neutrinos
- Cosmic rays and neutrinos
- Dark matter

#### **International Advisory Committee:**

B. Alex Brown (East Lansing), H. Ejiri (Osaka), A. Giuliani (Insubria), W. Haxton (Berkeley), J. Jose (Barcelona), K. Langanke (Darmstadt), M. Lindner (Heidelberg), Z. Majka (FAIR), T. Motobayashi (Tokyo), H. Rebel (Karlsruhe), C. Rolfs (Bochum), H. Schatz (East Lansing), G. Senjanovic (ICTP), B. Sherill (FRIB), C. Spitaleri (Catania), R. E. Tribble (Texas A&M), P. Vogel (CALTECH), M. Wiescher (Notre Dame), A. Wolfendale (Durham), P. J. Woods (Edinburgh), N. V. Zamfir (Bucharest).

#### **Organizing Committee:**

##### **Directors:**

Alexei Yu. Smirnov (ICTP), Sabin Stoica (IFIN-HH, FHH) and Livius Trache (TAMU/IFIN-HH)

##### **Members:**

Adriana Banu (TAMU/IFIN-HH), Florin Carstoiu (IFIN-HH), Mihai Mirea (IFIN-HH) Andrei Neacsu (IFIN-HH), Horia Petrascu (IFIN-HH), Gariel Tabacaru (TAMU/IFIN-HH)

This is the second circular to announce the **Carpathian Summer School of Physics 2010** that is being organized this year, 20 June – 3 July 2010, in the Carpathian resort of **Sinaia, Romania**. It contains in part similar information with the first circular, describing the event and the venue, adds or updates important information, including the current list of lecturers, and news or small changes in the program. As the registration remains open for potential participants from countries that do not need EU visa, this circular is still going to be widely distributed. The 3<sup>rd</sup> and final circular will be sent to the registered participants only, at the beginning of June 2010.

### **Invited lecturers (by May 5<sup>th</sup> 2010):**

N. Auerbach (Tel Aviv), J. Aysto (Jyvaskyla), B. Balantekin (Madison), C. Bertulani (Texas A&M Commerce), A. Bonaccorso (Pisa), B. A. Brown (MSU), F. Carstoiu (IFIN-HH, Bucharest), M. Cirelli (Saclay), R. Cyburt (JINA), H. Ejiri (Osaka), F. von Feilitzsch (TUM), F. Ferroni (Roma-Sapienza), B. Fields (Urbana), G.M. Fuller (San Diego), G. Giacomelli (Bologna), F. Halzen (Madison), M. Hass (Rehovot), M. Horoi (CMU), F. Ibrahim (Orsay), C. Iliadis (North Carolina & TUNL), J. Jose\* (Barcelona), J. Kisiel (Silesia), V.M. Kolomiiets (Kyiv), K-L Kratz (Mainz), L. Labarga (Madrid), I. Lazanu (Univ. of Bucharest), Z. Majka (FAIR), N. Margineanu (Bucharest), F. Matovani (Ferrara), I. Mocioiu (Penn State), L. Mosca (Saclay/LSM), T. Motobayashi (Tokyo), A. M. Mukhamedzhanov (Texas A&M), J. Natowitz (Texas A&M), F. Negoita (IFIN-HH, Bucharest), K. Nishikawa (KEK), G. Pascovici (Cologne), C. Pena-Garay (Valencia), A. Petrovici (IFIN-HH, Bucharest), J. Pinfold (Alberta & CERN), L. Popa (ISS, Bucharest), V. Popa (ISS, Bucharest), E. Pollacco\* (Saclay), H. Rebel (Karlsruhe), C. Rolfs (Bochum), E. Roulet (Bariloche), A. Rubbia\* (Zurich), B. Rubio (Valencia), S. Shlomo (Texas A&M), G. Sigl (Hamburg), O. Sima (Univ. of Bucharest), A. Yu. Smirnov (ICTP), C. Spitaleri (Catania), N. Spooner\* (Sheffield), L.G. Sobotka (St. Louis), S. Stoica (Bucharest), J. Suhonen (Jyvaskyla), M. Thoenessen (MSU), L. Trache (Texas A&M), R.E. Tribble (Texas A&M), W. Trzaska (Jyvaskyla), C. Volpe (Orsay), M. Wiescher\* (Notre Dame), A. Wolfendale\* (Durham), P.J. Woods (Edinburgh), P. Zarubin\* (Dubna).

\* to be confirmed

**Sponsors:** *ICTP, National Authority for Scientific Research, Bucharest ROMANIA, TAMU, CEI - Central European Initiative*

### **General information:**

This will be the 23-rd edition of a tradition that begun in 1967 with the Summer Schools in Predeal. The event is **part of the 2010 calendar of the external activities of ICTP** and has the title: **Exotic Nuclei and Nuclear/Particle Astrophysics (III). “From Nuclei to Stars.”**

The **first week** of the event has a ‘school’ character defined by a series of courses up to 3-4 hours each, on the topics mentioned above. It will be aimed at graduate students, post-docs and young researchers. Students from the host country, surrounding regions and all countries that are members of the United Nations, UNESCO or IAEA will attend. The goal of the first week is to have lectures from some of the best specialists in the fields announced. That would also prepare the students for the second part. A number of ICTP fellowships were granted to students following their applications received on the ICTP website before March 15<sup>th</sup>.

The **second week** has a conference format, closer to the past format of the Carpathian schools, with **1 hour invited lectures** (discussions and a 5 min break included) and **20 min. short communications** (including 3 min for discussions).

The whole event intends to also respond to the needs of the scientists in the host country and the region for first contacts with other scientists from all over the world or to discuss their current collaborations.

### Round table

A special outreach session in a round table format is being planned for the **afternoon of Saturday June 26**. The subject chosen this year is:

**“Science and society. Do (all) countries need science?!”**

For this session officialities of the host country involved in the research policy and in the management of research and higher education, politicians and representatives of media are invited to join the CSSP10 participants in open discussions on the above subject. The session will be followed by the school’s banquet.

### Venue, attractions

The conference will be held in the conference center of hotel “International”, in **Sinaia**. This is a year-round mountain resort in the heart of the Carpathians; about 130 km north of Bucharest, less than 2 hours drive from the main international airport of Romania (Bucharest-Otopeni, or OTP). Sinaia is “the Pearl of the Carpathians”, the summer residence of the late Romanian kings and of the past (and present) aristocracy. It is close to the geographical centre of the country, itself a prime tourist attraction and in close proximity to many first class natural and historical attractions of Romania. Extra activities, from visiting the Peles Castle with its beautiful art collection or the open-air folklore exhibit and market, to dinning and wining at restaurants with live Romanian and international music, to mountain climbing, are all available within walking distance, in Sinaia.

**School’s banquet will take place on Saturday, June 26 after 7:00pm** in nearby Paraul Rece. Next day, **Sunday June 27<sup>th</sup>, school’s excursion** will take our guests across the mountain to old Transylvanian castles and cities, like the Bran castle (“Dracula’s castle”) and Brasov, with lunch in the Poiana Brasov ski resort. Other short excursions are possible by car, bus or train.

### Accommodation

The venue of the school will be Hotel International\*\*\*\* (<http://www.international-sinaia.ro>), a four star complex, where the participants *will be accommodated in single and double rooms and in luxury flats at the following prices:*

*Double room in single occupancy: 60 euro/day, about 260 lei (Romanian currency),*

*Double room in double occupancy: 33 euro/ person/day, about 142 lei*

*Deluxe double room: 80 euro/day, about 345 lei*

*There will be also a limited number of luxury suites available at 120 euro/day. These prices are offered **only** if the participants are registered **via the organizers. Do not register directly with the hotel if you want the discounted rates! Breakfast is included in room’s price.***

***Lunches, buffet style, will be served for all participants at the same hotel at 13 euro each.***

***Dinners can be pre-arranged at the same hotel at 13 euro each, or the participants can chose to manage by themselves with these meals at other restaurants that are available around, in walking distance.***

A limited number of places in youth hostels can be made available at lower rates for students. Please, contact the organizers for advice on such arrangements.

## Registration:

**Online registration** remains open till **May 24th** only for participants from countries that do not need entry visas in Romania (see [http://www.mae.ro/poze\\_editare/2009.06.10\\_Anexa1\\_en.pdf](http://www.mae.ro/poze_editare/2009.06.10_Anexa1_en.pdf) and <http://www.mae.ro>). It can be made at <http://cyclotron.tamu.edu/cssp10>, at <http://agenda.ictp.it/smr.php?2180> and by email (see "contact").

As a rule, the participants should be supported by their home institution. The cost of all lunches, of desired dinners, of the transfer to/from the airport (**25 euro** each way) and of the volume of the Proceedings (**40 euro**) need to be paid in cash at the time registration. Payment can be made in euros, in dollars or in Romanian lei (RON). ATM disbursing RON and accepting most major credit cards are placed within walking distance from the hotel.

**Fellowships:** a number of fellowships were awarded to applying students and consist of full or partial local support for 2 weeks. The costs listed above are fully supported for the students granted full scholarship, as they were individually announced.

**Abstracts/papers.** The proceedings of the conference will be published in the *AIP Conference Series* at total costs of about 40 euro/volume. The camera ready typescripts must be submitted to the organizers by September 15<sup>th</sup> 2010. The necessary format templates will be indicated in the last circular.

A booklet of abstracts will be made available at the beginning of the School. For that, we invite the participants who will give lectures and oral contributions to send the abstracts of their papers (less than 300 words) via email to [cssp10\\_fhh@yahoo.com](mailto:cssp10_fhh@yahoo.com) or [cssp10\\_secretariat@yahoo.com](mailto:cssp10_secretariat@yahoo.com) **before May 31th, 2010**.

**Transport to/from the airport.** The organizers plan to help the participants with the transfer from the airports to the hotel in Sinaia. In order to do that, the participants are asked to provide the organizers, as soon as they know, with the exact information about their arrivals and departures ([cssp10\\_secretariat@yahoo.com](mailto:cssp10_secretariat@yahoo.com)).

**Visas.** Those participants who need Romanian visa (see [www.mae.ro](http://www.mae.ro), then click 'visas') are kindly invited to apply in due time for it at the Romanian Embassies/Consulates from their countries.

## Contact:

Activity Web Page: <http://agenda.ictp.it/smr.php?2180>

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- At the Abdus Salam International Centre for Theoretical Physics:

### **Carpathian Summer School of Physics 2010 (CSSP10)**

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ICTP Home Page: <http://www.ictp.it>

Activity web page: <http://agenda.ictp.it/smr.php?2180>

Up-to-date information on our website: <http://cyclotron.tamu.edu/cssp10> or its Bucharest counterpart: <http://zamolxes.theory.nipne.ro/cssp10/>.