



**Carpathian Summer School of Physics 2016**  
*Exotic Nuclei and Nuclear/Particle Astrophysics (VI).*  
*Physics with small accelerators*  
*June 26 – July 9, 2016, Sinaia, Romania*

**First circular**

**General information**

This is the first circular to announce the **Carpathian Summer School of Physics 2016** to take place between June 26 - July 9, 2016, in the Carpathian resort of Sinaia, Romania. This will be the 27th edition of a tradition that begun in 1964. The title is:

**"Exotic Nuclei and Nuclear/Particle Astrophysics (VI).**  
**Physics with small accelerators"**

and is the 6<sup>th</sup> in the latest series with the same title organized in Mamaia (2005) and Sinaia (2007, 2010, 2012 and 2014). It is part of ENNAS (European Network of Nuclear Astrophysics Schools, with St. Tecla and Russbach). Following extensive discussions and in agreement with those schools' organizers we created a network of periodic events that respond to the need of preparing and educating the younger generations of physicists in the cross disciplinary fields of nuclear physics and astrophysics through lectures and meetings with some of the best active scientists. This year we add additional flavor to the event through the explicit inclusion of subjects related to physics with small accelerators, fundamental or applied research subjects.

We intend to remain faithful to the format of the latest editions: the **first week** of the event will be closer to a school-like format defined by a series of courses up to 2-4 hours each. It will be aimed at graduate students, post-docs and young researchers. Students from the host country, the surrounding regions and all countries are invited to attend. A limited number of stipends to cover the local expenses for students will be available. The **second week** will have a conference-like format, with 1 hour invited lectures. The goal of the first week is to have lectures from some of the best specialists in the fields announced that would prepare the students for the second part. Students and young researchers will give 20 min. short communications. We also intend to bring to this audience news about ELI-NP, the newest and most important scientific project that happens in the host country and the region.

**Organizer**

**"Horia Hulubei" National Institute for Physics and Nuclear Engineering (IFIN-HH) Bucharest**

**Topics include**, but are not restricted to:

- *Exotic nuclei*
- *Nuclear physics with RIBs*
- *Nuclear physics for astrophysics*
- *Stellar evolution. Compact stars and supernovae*
- *Astroparticle physics*
- *Stellar and laser induced plasmas*
- *Physics at ELI-NP*
- *Applications at small accelerators*
- *Nuclear astrophysics with small accelerators*
- *Instrumentation*
- *Accelerators for medical treatments, radioisotope production and industrial applications*

**International Advisory Committee:**

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**Organizing Committee:**

*Livius Trache and Dan Gabriel Ghita: chairs*

*Dan Filipescu and Tiberiu Sava: scientific secretaries*

*Dan Cozma, Alexandra Saftoiu, Alexandra Chilug, Dana Tudor, Doru Pacesila*

**Among the invited lecturers (as of Dec. 11<sup>th</sup> 2015):**

T. Aumann\* (Darmstadt), D. Balabanski (Bucharest), C. Bertulani (TAMU-Commerce), M. Borge\* (Geneve), A. Bonaccorso (Pisa), A. Bonasera (Catania), C. Diaconu (Marseille), M. Gai (New Haven), S. Gales (Bucharest), M. Hass (Rehovot), A. Haungs (Karlsruhe), M. Horoi (CMU), T. Kajino (Tokyo), U. Koster\* (Grenoble), K-L Kratz (Mainz), F. Ibrahim (Orsay), G. Martinez-Pinedo\* (Darmstadt), I. Mocioiu\* (Penn State), T. Motobayashi (Tokyo), A.M. Mukhamedzhanov\* (Texas A&M), J. Jose (Barcelona), M. Petrovici (Bucharest), J. Piekarewicz (Tallahassee), D. Savran\* (Darmstadt), S. Shlomo (Texas A&M), O. Sima (Bucharest), G. Souliotis\* (Athens), C. Spitaleri (Catania), P. Thierolf (Munich), H. Weller\* (Duke), M. Wiescher\* (Notre Dame), P.J. Woods\* (Edinburgh), S.J. Yennello\* (Texas A&M), A. Zilges (Cologne) etc. (\* to be confirmed)

## Special events

A special outreach session in a round table format is being planned for the **afternoon of Saturday July 2<sup>nd</sup>**. The subject proposed this year are:

### **“JINR Dubna at 60”**

Officials of the host country involved in the research policy and in the management of research and higher education, JINR Dubna representatives, scientists working at JINR, politicians and media representatives will be invited to join the CSSP16 participants in open discussions on the above subjects. The session will be followed by the school’s banquet. Sunday July 3<sup>rd</sup> we plan the school excursion(s).

## Venue, attractions

The conference will be held in **Sinaia**, a year-round mountain resort in the heart of the Carpathians, about 130 km north of Bucharest, about 1.5 hours drive from the main international airport of Romania.

During the school, we shall organize excursions and social events to give the participants the chance to know the Romanian landscape and culture. Sinaia is “the Pearl of the Carpathians”, a prime tourist attraction and in close proximity to many first class natural and historical attractions of Romania. Extra activities, from visiting the Sinaia monastery and the Peles Castle (with its beautiful art collection or the open-air folklore exhibit and market), to dining and wining at restaurants with live Romanian and international music, to mountain climbing, are all available within walking distance. Visits to old Transylvanian cities, like Brasov, Sibiu and Sighisoara, or to the Bran castle (“Dracula’s castle”) and Poiana Brasov, 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 most of 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 270 lei (RON= Romanian currency),*

*Double room in double occupancy: 34 euro/ person/day, about 150 lei*

*Deluxe double room: 75 euro/day, about 340 lei*

*There will be also a limited number of suites available [ junior suite 83, executive junior suite 90 and one bedroom suite 125 euro/day, respectively.] These prices are offered **only** if the participants are registered **via the organizers**.*

***Breakfast is included in room’s price.***

***Lunches will be served at the same hotel and are included in the fee.***

***Dinners can be pre-arranged at the same hotel at about 16 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 just across the street will be available at lower rates for students. Please contact the organizers for advice on such arrangements.

## Registration

**Online registration** is available at <http://www.nipne.ro/cssp16> and by email (see "Contact").

The deadlines for registration are:

- for participants from countries that need visa for Romania (see <http://www.mae.ro>): April 20<sup>th</sup> 2016;
- for participants from countries that do not need visa: June 15<sup>th</sup> 2016.

A fee of about **350 euro** (TBD later, cf. prices' evolution) for the two weeks stay and **200 euro** for one week will be charged covering the cost of lunches and coffee breaks and of the volume of the Proceedings for each participant. The organizers can assist with the transportation from and to the airports in Bucharest at a cost of **25 euro**/person/trip.

**Stipends.** As a rule, the participants should be supported by their home institution. However, a limited number of fellowships will be available for students (consisting of full or partial local support for 2 weeks, but no transportation). The applicants should provide a short (one page) CV and a letter of recommendation from a professor or senior scientist who supports their application. Applications for fellowships can be made online with letters of support e-mailed to either of the directors; the **deadline is May 6<sup>th</sup> 2016**.

**Abstracts/papers.** The proceedings of the conference will be published with an internationally recognized Publisher (TBD) at about 40 Euro/volume. 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 [cssp16@nipne.ro](mailto:cssp16@nipne.ro), **before June 5<sup>th</sup> 2016**.

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Up-to-date information on our website: <http://cssp16.nipne.ro> or <http://www.nipne.ro/cssp16>

Organized by:

