



**Carpathian Summer School of Physics 2018**  
*Exotic Nuclei and Nuclear/Particle Astrophysics (VII).*  
*Physics with small accelerators*  
*July 1-14, 2018, Sinaia, Romania*

**Second circular**

**General information**

This is the second circular to update the information about the **Carpathian Summer School of Physics 2018**, which will take place between July 1-14, 2018, in the Carpathian resort of Sinaia, Romania. This will be the 28<sup>th</sup> edition of a tradition that begun in 1964. The title is, as above:

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

and is the 7<sup>th</sup> in the latest series with the same title organized in Mamaia (2005) and Sinaia (2007, 2010, 2012, 2014 and 2016). It is **part of the ENNAS** (European Network of Nuclear Astrophysics Schools) with its counterparts at St. Tecla, Sicily, Italy and Russbach, Austria. As you may know, ENNAS was created in 2010 and since it represents 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**. This year we add again a specific flavor to the event through the explicit inclusion of subjects related to **physics with small accelerators**, both fundamental and applied research subjects.

We will remain in part faithful to the format of the latest editions: the **first week** of the event will be closer to a school-like format, aimed at graduate students, post-docs and young researchers. Students from all countries are invited to attend. **A limited number of stipends to cover the local expenses for students is 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. We also intend to bring to this audience news about the physics and advances of ELI-NP, the newest and most important scientific project that happens in the host country and the region with two days dedicated sessions on July 5th and 6th. Students and young researchers will give 20 min. short communications through the school.

**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. Neutron 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*

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**Invited lecturers (confirmed as of May 10<sup>th</sup>, 2018):**

M. Avrigeanu (Bucharest), V. Avrigeanu (Bucharest), V. Baran (Bucharest), C. Bertulani (TAMU Commerce), S. Bishop (Munich), C. Borcea (Bucharest), A. Caciolli (Padova), A. Coc (Orsay), B. Constantinescu (Bucharest), D. Delion (Bucharest), R. Diehl (Munich), C. Doherty (Budapest), M. El Eid (Beirut), B. Fields (Urbana), M. Horoi (CMU), J. Jose (Barcelona), A. J. Jull (Tucson & Debrecen), G. Kiss (Debrecen), E. Kozulin\* (Dubna), K-L Kratz (Mainz), W. Kutschera (Vienna), K. Langanke (Darmstadt), C. Lederer-Woods (Edinburgh), C. Mihai (Bucharest), R. Margineanu (Bucharest), B. Meyer (Clemson), I. Mocioiu (Penn State), M. Molnar (Debrecen), T. Motobayashi (Tokyo), G. Pascovici (Bucharest), A. Petrovici (Bucharest), M. Petrovici (Bucharest), E. Pollacco (Saclay), M. Radu (Bucharest), A. Raduta (Bucharest), C. Spitaleri (Catania), T. Sajaavara (Jyvaskyla), S. Sion (Bucharest), M. Wang (Lanzhou), P.J. Woods (Edinburgh), A. Wuosmaa (Storrs) etc.

***The invited talks will be 1 hour long, discussions and a 5 min break included. The oral presentations will be of 20 min, with 3 min included for discussions.***

### Special events

A special outreach day is being planned for **Saturday July 7<sup>th</sup>**. The morning session will address topics and a format for a wider audience. The afternoon will be dedicated to discussions in a round table format. The subject chosen this year is: **“How one prepares the next generation of scientists in the age of instant communication”**.

Officialities of the host country involved in the research policy and in the management of research and higher education, politicians and media representatives will be invited to join the CSSP18 participants in open discussions on the above subjects. The session will be followed by the school’s banquet. **Sunday July 8<sup>th</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 Bucharest (OTP).

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: the Sinaia monastery and the Peles Castle (with its beautiful art collection or the open-air folklore exhibit and market). 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: 67 euro/day, about 312 lei (RON= Romanian currency),*

*Double room in double occupancy: 39 euro/ person/day, about 180 lei*

*Deluxe double room: 85 euro/day, about 396 lei*

*There will be also a limited number of suites available [ junior suite 95, executive junior suite 105 and one bedroom suite 135 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 17 euro each, or the participants can chose to manage by themselves with these meals at other restaurants that are available in Sinaia, within 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/cssp18> and by email (see “Contact”).

The registration for participants from countries that need visa for Romania is now closed.

The deadline for registration for participants from countries that do not need visa for Romania remains **June 15<sup>th</sup> 2018**.

A fee of about **400 euro** (TBD later, cf. prices' evolution) for the two weeks stay and **220 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.

**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 international transportation). The applicants should provide a short (one page) CV and a letter of recommendation from a professor or senior scientist supporting the application. Applications for fellowships can be made online with letters of support e-mailed to the director; the **deadline is May 15<sup>th</sup>, 2018**.

**Abstracts/papers.** The proceedings of the conference will be published with an internationally recognized Publisher (TBD) at about 40 Euro/volume. As an example, the latest volume of the Proceedings of the latest Carpathian Summer School of Physics, Sinaia 2016, can be found at <http://aip.scitation.org/toc/apc/1852/1?size=all&expanded=1852> . 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 [cssp18@nipne.ro](mailto:cssp18@nipne.ro), **before June 15<sup>th</sup> 2018**.

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Up-to-date information on our website: <http://cssp18.nipne.ro> or <http://www.nipne.ro/cssp18>

Organized by:

