



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

Second circular

General information

This is the second 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 2nd circular repeats the basic information released in the first circular and contains news and updates.

The title of the event is:

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

and is the 6th 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:

T. Aumann (Darmstadt)

C. Bertulani (Commerce, TX)

C. Diaconu (Marseille)

M. El Eid (Beirut)

F. Ferroni (Rome)

Zs. Fulop (Debrecen)

S. Gales (Bucharest)

M.G. Itkis (Dubna)

J. Jose (Barcelona)

A. J. Jull (Tucson)

T. Kajino (Tokyo)

K.H. Kampert (Wuppertal)

U. Koester (Grenoble)

K.-L. Kratz (Mainz)

W. Kutschera (Vienna)

K. Langanke (Darmstadt)

A. Mackova (Prague)

V. A. Matveev (Dubna)

N. Marginean (Bucharest)

T. Motobayashi (Tokyo)

N. Pietralla (Darmstadt)

T. Sajavaara (Jyvaskyla)

H. Schatz (East Lansing)

Ch. Scheidenberger (Giessen)

O. Sorlin (Caen)

C. Spitaleri (Catania)

H.-A. Synal (Zurich)

G. V. Trubnikov (Dubna)

M. Wiescher (Notre Dame)

N. V. Zamfir (Bucharest)

Organizing Committee:

Livius Trache and Dan Gabriel Ghita: chairs

Dan Filipescu and Tiberiu Sava: scientific secretaries

Alexandra Chilug, Dana Tudor, Doru Pacesila, Adrian Rotaru : members

Invited lecturers:

V. Avrigeanu (Bucharest), D. Balabanski (Bucharest), V. Baran (Bucharest), A. vd Berg (Groningen), C. Bertulani (Texas A&M Commerce), S. Bishop (Munich), M. Borge* (Geneve), A. Bonasera (Catania), I. Brancus (Bucharest), B. Constantinescu (Bucharest), R. Dabu (Bucharest), D. Delion (Bucharest), C. Diaconu* (Marseille), R. Diehl (Munich), M. El Eid (Beirut), Zs. Fulop (Debrecen), M. Gai (New Haven), S. Gales (Bucharest), C. Granja (Prague), M. Hass (Rehovot), A. Haungs (Karlsruhe), M. Horoi (CMU), M.G. Itkis (Dubna), A. Jokinen* (Jyvaskyla), A. J. Jull (Tucson), K-H Kampert (Wuppertal), K-L Kratz (Mainz), W. Kutschera (Vienna), K. Langanke (Darmstadt), Bao An Li (Texas A&M Commerce), A. Mackova (Prague), B. Mitrica (Bucharest), I. Mocioiu (Penn State), T. Motobayashi (Tokyo), F. Negoita (Bucharest), D. Nicmorus (Darmstadt), N. Palincas (Bucharest), A. Petrovici (Bucharest), M. Petrovici (Bucharest), T. Sava (Bucharest), B. Sharkov (Darmstadt), S. Shlomo (Texas A&M), C. Spitaleri (Catania), C. Stan-Sion (Bucharest), D. Stutman (Bucharest), H-A Synal (Zurich), T. Szucs (Debrecen), A. Tumino (Catania), C. Ur (Bucharest), P.J. Woods (Edinburgh), etc. (* yet to be confirmed)

Special events

A special outreach session in a round table format is being planned for the **afternoon of Saturday July 2nd**. 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 3rd 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.

Accommodation

The venue of the school will be Hotel International**** (<http://www.international-sinaia.ro>), a four star conference 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.

Travel

By plane to BUCHAREST. You can reach the Bucharest-Otopeni airport (OTP) (“Henri Coanda” International Airport) by one of the numerous flights that connect the Romanian capital with the major Europeans airports. OTP is close to Bucharest and on the highway from the city to Sinaia at ~100 km. *Arrangements for airport transfer will be offered to participants (details in the 3rd circular).* Transfer to Sinaia by train from Bucharest is also possible. Details in the 3rd circular, in June.

By train: SINAIA is a major station on the main railway routes from West and Central Europe to Bucharest.

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 20th 2016; (passed)*
- *for participants from countries that do not need visa: June 15th 2016.*

Invited lecturers do not need to register on web if they communicated directly with the organizers.

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 were asked to provide a short (one page) CV and a letter of recommendation from a professor or senior scientist who supports their application. Applications for fellowships were online with letters of support e-mailed to either of the directors; the **deadline was May 6th 2016 (passed)**.

Abstracts/papers. The proceedings of the conference will be published with an internationally recognized Publisher (AIP) 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, **before June 5th 2016**.

Program of the school (draft):

- **1st week June 27 – July 2**

Mon-Tue-Wed: Introductions and Physics with small accelerators

Tue is an AMS day. Lecturing: Kutschera, Synal, Stan-Sion, Sava, Palincas (archaeologist).

Tim Jull arrives Fri, will talk Saturday.

Thu – Fri: ELI-NP days

Sat: outreach sessions. Afternoon the subject of the round table is “JINR Dubna at 60”;

Banquet

Sun: excursion(s)

- **2-nd week: July 4-8**

Mon: Astroparticles and Large facilities

Tue-Fri: nuclear structure, nuclear astrophysics, astroparticles, etc...

Saturday: July 9th: departure

Contact:

• *Dr. Livius Trache, phone: +40 21 404 2303, fax: +40 21 423 1701*

livius.trache@nipne.ro

• *dr. Dan Gabriel Ghita, phone: +40 746 126 492, dan.ghita@nipne.ro*

• *Secretariat cssp16@nipne.ro*

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

Organized by:

