

## **Session Program**

**18-27 Aug 2021**

# **Carpathian Summer School of Physics 2020**

## ***Morning Session***

Sinaia, Romania

Hotel International\*\*\*\* 1st. Avram Iancu Street, Sinaia 106100, Romania

## Thursday 19 August

09:15

### Morning Session: Nuclear Astrophysics

**Session** | **Location:** Sinaia, Romania, Hotel International\*\*\*\* 1st. Avram Iancu Street, Sinaia 106100, Romania |  
**Convener:** Prof. Livius Trache

09:15-10:50

#### Introduction to Nuclear Astrophysics. Origin of the Chemical Elements in the Universe.

**Speaker**

Dr Aurora Tumino

10:50-11:10

**Coffee Break**

11:10-12:25

**Low energy nuclear reaction studies****Speaker**

Dr Tamas Szücs

12:25-13:00

**Physics at LUNA (I)****Speaker**

Dr László Csétreki

13:00

## Friday 20 August

09:00

### Morning Session: Exotic States in Nuclei

**Session** | **Location:** Sinaia, Romania, Hotel International\*\*\*\* 1st. Avram Iancu Street, Sinaia 106100, Romania | **Convener:** Dr Roland Diehl

09:00–10:00

#### Giant collective motions in nuclei.

##### Speaker

Dr Muhsin Harakeh

10:00–10:50

#### IsoScalar Giant Resonances

##### Speaker

Dr Muhsin Harakeh

10:50–11:10

#### Coffee Break

11:10–12:25

#### The stellar s-process. The historical r-process.

##### Speaker

Prof. Karl-Ludwig Kratz

12:25–13:00

#### The new r-process

##### Speaker

Prof. Karl-Ludwig Kratz

13:00

## Saturday 21 August

09:00

### Morning Session: Nuclear Astrophysics

**Session** | **Location:** Sinaia, Romania, Hotel International\*\*\*\* 1st. Avram Iancu Street, Sinaia 106100, Romania |  
**Convener:** Dr Dan Filipescu

09:00–10:50

#### Indirect Methods in Nuclear Astrophysics

**Speaker**

Dr Carlos Bertulani

10:50–11:10

#### Coffee Break

11:10–12:00

#### Learning from directly observing cosmic isotopes

**Speaker**

Dr Roland Diehl

12:00–12:50

#### Laser-driven laboratory astrophysics

**Speaker**

Dr Julien Fuchs

13:00

# Monday 23 August

09:00

## Morning Session: Physics at ELI-NP

**Session** | **Location:** Sinaia, Romania, Hotel International\*\*\*\* 1st. Avram Iancu Street, Sinaia 106100, Romania |  
**Convener:** Dr Florin Negoita

09:00–09:55

### Physics Horizon Expandable with 10 PW Laser Beams at ELI-NP

#### Speaker

Dr Kazuo Tanaka

09:55–10:50

### Electric dipole response of low-mass nuclei for the mass evolution of extra-galactic ultra-high energy cosmic rays

#### Speaker

Dr Pär-Anders Söderström

10:50–11:10

### Coffee Break

11:10–12:05

### High Power Laser System at ELI-NP

#### Speaker

Dr Ioan Dancus

12:05–13:00

### Commissioning Experiments in E4 and E7 at ELI-NP

#### Speaker

Dr Ovidiu Tesileanu

13:00

## Tuesday 24 August

09:00

### Morning Session: Nuclear Equation of State

**Session** | **Location:** Sinaia, Romania, Hotel International\*\*\*\* 1st. Avram Iancu Street, Sinaia 106100, Romania |  
**Convener:** Dr Carlos Bertulani

09:00–09:55

#### Nuclear Equation of State and neutron stars

**Speaker**

Dr Adriana Raduta

09:55–10:50

#### The equation of state for warm stellar matter: light and heavy clusters

**Speaker**

Dr Helena Pais

10:50–11:10

#### Coffee Break

11:10–12:05

#### Neutron stars and their thermal evolution

**Speaker**

Dr Mikhail Beznogov

12:05–13:00

#### Photoneutron cross section measurements with Laser Compton scattered gamma-ray beams

**Speaker**

Dr Dan Filipescu

13:00

## Wednesday 25 August

09:00

### Morning Session: AstroParticles & Exotic Nuclei

**Session** | **Location:** Sinaia, Romania, Hotel International\*\*\*\* 1st. Avram Iancu Street, Sinaia 106100, Romania | **Convener:** Dr Ion Burducea

09:00–09:55

#### Introduction to cosmic rays

**Speaker**

Dr Alexandra Saftoiu

09:55–10:50

#### Radio detection of astroparticles

**Speaker**

Dr Alina Badescu

10:50–11:10

#### Coffee Break

11:10–12:05

#### A short history of exotic nuclei!

**Speaker**

Dr Mihai Stanoiu

12:05–13:00

#### Double-Beta Decay and Beyond Standard Model Physics

**Speaker**

Dr Andrei Neacsu

13:00

## Thursday 26 August

09:00

### Morning Session: Physics with small accelerators

**Session** | **Location:** Sinaia, Romania, Hotel International\*\*\*\* 1st. Avram Iancu Street, Sinaia 106100, Romania |  
**Convener:** Dr Mihai Stanoiu

09:00–09:55

#### Small accelerators for science and applications

**Speaker**

Dr Ion Burducea

09:55–10:50

#### Targets for nuclear physics and astrophysics

**Speaker**

Dr Nicoleta Florea

10:50–11:10

#### Coffee Break

11:10–12:00

#### Nuclear Fission at 80

**Speaker**

Dr Catalin Borcea

12:00