

## **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 Szucs

12:25-13:00 **Physics at LUNA (I)****Speaker**

Dr László Csedreki

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