



# Fifth International Workshop on State of the Art in Nuclear Cluster Physics

June 10-14, 2024, Hvar Island, Croatia

## STATE OF THE ART IN NUCLEAR CLUSTER PHYSICS 5 Hvar, Croatia June 10-14, 2024

### General Information

We are pleased to announce the fifth international workshop on “State of the Art in Nuclear Cluster Physics”. The workshop will be held at the Amfora Beach Resort, Hvar, Croatia, from June 10<sup>th</sup> to 14<sup>th</sup>, 2024. The previous workshops of the series were held in Strasbourg (2008), Brussels (2010), Yokohama (2014) and Galveston (2018). The workshop series is dedicated to review the present status and to discuss future prospects of nuclear cluster physics. The workshop is jointly organized by the Faculty of Science, University of Zagreb and Ruđer Bošković Institute.

The program will consist of invited and contributed presentations, along with poster sessions. The list of **invited speakers** includes:

Jack Bishop (University of Birmingham, UK)  
Jesus Casal\* (University of Sevilla, Spain)  
Lorenzo Corradi\* (LNL, Italy)  
Daniele Dell’Aquila (University of Naples, Italy)  
Alessia Di Pietro (LNS, Catania, Italy)  
Martin Freer (University of Birmingham, UK) – Summary talk  
Alain Goasduff (LNL, Italy)  
Hironori Iwasaki (FRIB, USA)  
Rituparna Kanungo (St. Mary’s University, Canada)  
Takahiro Kawabata (Osaka University, Japan)  
Elias Khan (IJCLab Orsay, France)  
Masaaki Kimura (RIKEN, Japan) – Keynote talk on theory  
Alison Laird (University of York, UK)

Miguel Marqués (LPC Caen, France)  
Taka Otsuka\* (Tokyo University, Japan)  
Grigory Rogachev (Texas A&M, USA) – Keynote talk on experiment  
Stefan Typel (TU Darmstadt, Germany)  
Bo Zhou (Fudan University, China)  
\* to be confirmed

### **Topics of the Conference**

- Cluster structure and many-body correlations in stable and unstable nuclei
- Clustering aspects of nuclear reactions and resonances
- Alpha condensate and analogy with condensed matter approaches
- Role of tensor force in cluster physics and ab initio approaches
- Clustering in hypernuclei
- Nucleon-nucleon correlations
- Nuclear fission, superheavy nuclei, and cluster decay
- Nuclear clusters in nuclear astrophysics
- Clustering in nuclear matter and neutron stars
- Clustering in hadron and atomic physics

### **Workshop Site**

SOTANCP5 will take place at Amfora Beach Resort located on the beautiful and secluded island of Hvar, Croatia. The resort is situated a ten-minute walk from the historic town of Hvar and will provide an ideal environment for intense scientific interactions and networking.

Hvar Town unfolds its diverse charms, combining historical significance, cultural experiences, and modern pleasures. Nestled on the stunning island bearing its name, Hvar Town stands as one of the true gems of Croatian tourism. This picturesque town is the largest settlement on Hvar Island, boasting a rich cultural heritage and captivating architecture that echoes the grandeur of its past.

**A limited number of rooms have been reserved at the Pharos Hotel with a discounted rate. The discount code will be provided to registered participants.**

### **Registration and Abstract submission**

- ***Abstract Submission and Early Registration:*** Now open on the workshop website: <http://sotancp5.irb.hr/>
- *Registration fee:*

- Early Bird: 550 euro
- Regular: 700 euro
- Student: 400 euro
- Accompanying Person: 250 euro
- *Important dates:*
  - Abstract submissions open: December 15, 2023
  - ~~Deadline for abstract submission: February 1, 2024~~
  - **Deadline for abstract submission extended to: February 19, 2024**
  - Notification to contributors: March 2024
- Early bird registration deadline: April 10, 2024
- Final registration deadline: May 10, 2024

### **Social events**

- Welcome cocktail: Sunday, June 9, 2024, at Amfora Hotel.
- Social Dinner: Wednesday, June 12, 2024.
- A boat excursion around the Paklinski Islands is scheduled for the afternoon of Thursday, June 13, 2024. To secure your spot, kindly select the option available on the conference web page (*included in the Upgraded registration fee*).

### **Proceedings**

The proceedings for all poster and oral presentations will be published in *EPJ Web of Conferences*.

### **Contact Information**

If you have questions, please contact the organizers at [sotancp5@irb.hr](mailto:sotancp5@irb.hr)

### **International Advisory Committee**

C. Beck (IPHC/DRS Strasbourg, France)  
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 J.P. Draayer (Louisiana State U., USA)  
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### **Local Organizing Committee**

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