

## **The first circular on the 17<sup>th</sup> international symposium on Nuclei in the Cosmos**

**(NIC-XVII – September 17-22, 2023)**

### Overview and background

Nuclei in the Cosmos (NIC) is a major bi-annual conference in nuclear astrophysics, covering nuclear physics, astrophysics, astronomy, cosmo-chemistry, and other related fields. This conference aims to survey the recent achievements in the aforementioned subjects, and promote stimulating exchanges of knowledge, expertise and progress in this interdisciplinary field. Future research directions and collaborative efforts to solve key questions, ranging from the origin of the elements to stellar, galactic and cosmic evolution, will be encouraged. The NIC symposia are regarded as one of the most relevant international conferences in nuclear physics and astrophysics.

Most recently, the International Advisory Committee has chosen NIC-XVII to be hosted in Daejeon, Korea by the Center for Exotic Nuclear Studies (CENS) and the Rare Isotope Science Project (RISP) at the Institute for Basic Science (IBS). The past NIC symposia have been held in Chengdu (2021, China), Gran Sasso (2018, Italy), Niigata (2016, Japan), Debrecen (2014, Hungary), Cairns (2012, Australia), Heidelberg (2010, Germany), Mackinac Island (2008, USA), Geneva (2006, Switzerland), Vancouver (2004, Canada), Fuji-Yoshida (2002, Japan), Aarhus (2000, Denmark), Volos (1998, Greece), Notre Dame (1996, USA), Gran Sasso (1994, Italy), Karlsruhe (1992, Germany), and Baden bei Wien (1990, Austria).

### Topics of NIC-XVII

The subjects to be discussed in this symposium will include, and not limited to:

- Nuclear reaction rates and stellar abundances
- The s-process
- Nuclear properties for astrophysics
- High-density matter
- Novae and X-ray bursts
- Type Ia supernova and the p-process
- Core-collapse supernovae, mergers and the r-process
- Underground nuclear astrophysics
- The early universe
- Galactic evolution
- Radioactivity and meteorites
- Inputs for astrophysics

### Venue and format

The symposium will take place at Daejeon Convention Center (DCC), tentatively. It is located in Daedeok Science District, the heart of the Science City, Daejeon in Korea. The conference reception and other satellite events will take place at the Science Culture Center of IBS, which is within walking distance from DCC. Regarding the COVID-19 situation, NIC XVII will be an in-person only event.

### Important dates

- Second Circular: February, 2023
- Registration open: March, 2023
- Call for abstract submission: March, 2023
- Final Circular and abstract deadline: May, 2023
- Early registration deadline: June, 2023
- NIC-XVII Symposium: September 17-22, 2023

### Registration, fees and abstract submission

The call for abstracts and submission procedure, as well as details on the symposium registration and payment will be announced in the second circular. They will also be posted on the symposium website.

### NIC School

The School for NIC-XVII for graduate students and young postdocs will be held at the Institute for Basic Science, prior to the symposium. The school will provide introductory lectures on the current research topics in nuclear astrophysics. It will also provide opportunities for the participants to present and discuss their works. The details including exact dates will be announced in the forthcoming circular and on the symposium website.

### Contact and website

Inquiries related to the NIC-XVII 2023 Symposium can be sent to [nic2023@ibs.re.kr](mailto:nic2023@ibs.re.kr), and the symposium website is <https://indico.ibs.re.kr/event/548/>.