



The 16th International Symposium on Nuclei in the Cosmos

Third Circular

The 16th International Symposium on Nuclei in the Cosmos (NIC-XVI), will be held from 21st – 25th September 2021, in Chengdu, China. NIC-XVI is organized by the China Institute of Atomic Energy (CIAE), Institute of Modern Physics (IMP), Sichuan University (SCU), and Beijing Normal University (BNU). The symposium is supported by the International Union of Pure and Applied Physics (IUPAP), National Natural Science Foundation of China (NSFC), Asia-Pacific Center for Theoretical Physics (APCTP), Asian Nuclear Physics Association (ANPhA), China Center of Advanced Science and Technology (CCAST), China Institute of Nuclear Astrophysics (CINA), China National Nuclear Corporation (CNNC) and CIAE.

Overview and background

Nuclei in the Cosmos is the most important international meeting in the field of nuclear astrophysics. It brings together nuclear experimentalists, nuclear theorists, astronomers, theoretical astrophysicists, cosmo-chemists, and others interested in the scientific questions at the interface of nuclear physics and astrophysics. These questions concern, for example, the origin of the elements in the cosmos and the nuclear reactions that occur in the big bang, in stars, and in stellar explosions.

Past meetings have been held in Gran Sasso - Italy (2018), Niigata- Japan (2016), Debrecen- Hungary (2014), Cairns- Australia (2012), Heidelberg - Germany (2010), Mackinac Island - USA (2008), Geneva - Switzerland (2006), Vancouver – Canada (2004), Fuji-Yoshida - Japan



(2002), Aarhus - Denmark (2000), Volos – Greece (1998), Notre Dame - USA (1996), Gran Sasso - Italy (1994), Karlsruhe - Germany (1992), Baden bei Wien - Austria (1990).

Main Topics

- Nuclear reaction rates and stellar abundances
- The s process
- Nuclear properties for astrophysics
- High density matter
- Novae and XRB
- SNIa and the p process
- Core collapse SN, mergers and the r process
- Underground nuclear astrophysics
- The early universe
- Galaxy evolution
- Radioactivity and meteorites
- Inputs for Astrophysics
- One Minute Poster Presentations

Important Dates:

- November 15, 2020: Start of registration
- November 31, 2020: Abstract submission open
- June, 15 2021: Registration and abstract submission closed
- July 31, 2021: Final Circular:
- August 31, 2021: Conference program announced
- September 21-25, 2021: NIC XVI 2021 Symposium

Satellite meetings:

- September 15-20, 2021: NIC school

Registration:



The registration for NIC-XVI is open now. Please visit <https://indico.juna.ac.cn/event/1/> for registration. The registration deadline is June 15, 2021.

Abstracts Submission

Participants are encouraged to submit abstracts here, <https://indico.juna.ac.cn/event/1/>. Please be aware: (a), abstracts should be in plain text, and special characters should be typed in either the Markdown or LaTeX format; and (b), the deadline for submission is June 15 2021. A scientific committee will review submitted abstracts and decide which would be presented orally, which would not. We will let every single abstract submitter know her/his presentation way by June 30 2021.

NIC School

A NIC school, which aims to provide nuclear astrophysics-related courses for graduate students and young postdocs, will be organized prior to the symposium. The school would offer a great chance for junior nuclear physicists to discuss their research and expand their horizons in the field. The details of the school program are still in the making. As long as it is finished, we will release it on the website of the symposium. Please check our website later.

Proceedings

The conference proceedings will be published in electronic form in EPJ Web of Conferences (<https://www.webofconferences.org/epj-web-of-conferences-forthcoming-conferences>), an open-access publishing of conference proceedings of EDP Sciences (<https://www.edpsciences.org/>). Each contributed article will be fully citable thanks to DOI (Digital Object Identifier) and indexed in main databases. There will be no printed version of the proceedings. Further information on the manuscript preparation will be provided in the fourth circular.



Invited Talks

Speaker	Field	Institution
Wako Aoki	Elemental Abundances	NAOJ
Adam Burrows	Multi-dimensional Core-collapse Supernova Simulations	Princeton
Jun Cao	Future Neutrino Observatory for Supernova	IHEP
Barry Davis	Nuclear Physics Input	TRIUMF
Roland Diehl	Gamma-ray Line Astronomy from Space	MPE-MPG
Inma Dominguez	Stellar Evolution, in Particular Snia	Granada
Carla Frohlich	Supernovae	NC State
Bing Guo	Indirect Nuclear Physics Input	CIAE
Zhanwen Han	Binary Star	NAOC
Alexander Heger	Nucleosynthesis of Massive Stars	Monash
Falk Herwig	I-Process Review and Convective Reactive Burning in Stars	Victoria
Samuel Jones	Thermonuclear Electron	LANL/HITS
Jordi José	Novae and XRB	Cataluny
Ang Li	Nuclear Mean Field	Xiamen University
Weiping Liu	Underground JUNA	CIAE
Katharina Lodders	Solar Abundances	Washington
Larry Nittler	Radioactivity and Meteorites	Washington
Yongzhong Qian	Short-lived Radionuclides & Solar System Formation	Minnesota
Guy Savard	Mass Measurement with CARIBU Fission Products	ANL
Hendrik Schatz	rp-process	JINA
Xiaodong Tang	C+C Fusion Reaction	IMP
Freeke van de	Galactic Chemical Evolution of Heavy (Especially r-	Cardiff



Voort	process) Elements	University
Meng-Ru Wu	r-process Nucleosynthesis & Kilonovae in Neutron Star Mergers	IoP
Gang Zhao	Metal Poor/LAMOST	NAOC
Remco Zegers	Nuclear Physics Input	MSU
Jocelyn S Read	Gravitational Waves	California
Reto Trappitsch	Meteorites	LLNL
Mattias Junker	LUNA progress	INFN/LNGS
Chiaki Kobayashi	Chemical Evolution	Hertfordshire
Maria Lugaro	s process and beyond	Konkoly

Symposium Organization

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Contacts

- The symposium web site is: <http://www.iuna.ac.cn/nic16th>
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