

Session Program

Oct 20 - 23, 2026



The 18th International Symposium on Origin of Matter and Evolution of Galaxies (OMEG18)

Scientific Session

RIKEN, Headquarters Building 2F
2-1, Hirosawa, Wako, Saitama 351-0198, Japan

Tue, October 20

9:50 AM

Scientific Session: Session 1

Session | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

9:50 – 10:00 AM **Opening**

Speaker

Shunji NISHIMURA

10:00 – 10:25 AM **Nuclear Physics of Accreting Neutron Stars**

Speaker

Hendrik Schatz

10:25 – 10:45 AM

Astrophysical searches for X-ray/gamma-rays from r-process nuclei of Galactic Neutron-Star Merger Remnants in Globular Clusters

Speaker

Prof. Yukikatsu Terada

10:45 – 11:05 AM

Constraining the Astrophysical Role of the $^{140}(\alpha, p)^{17}\text{F}$ Reaction in Type I X-ray Bursts

Speaker

Chaeyeon Park

11:05 – 11:20 AM

New clocked burster Cir X-1 as a probe of explosive hydrogen burning

Speaker

Nonoka Ishii

11:20 AM

11:45 AM

Scientific Session: Session 2

Session | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

11:45 AM – 12:10 PM **Fine structure and hindrance in the $^{12}\text{C}+^{12}\text{C}$ fusion**

Speaker

Kouichi Hagino

12:10 – 12:25 PM

From Heavy Elements to Actinides: Constraining the Role of the i-Process at Low Metallicities

Speaker

Muhammed Riyas A

12:25 – 12:40 PM

Probing the N=126 Region: Decay Properties of Relevance to the r-Process

Speaker

Tik Tsun Yeung

12:40 PM

2:00 PM

Scientific Session: Session 3**Session** | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

2:00 – 2:25 PM

COLLECTIVE NEUTRINO OSCILLATIONS IN NUCLEAR ASTROPHYSICS**Speaker**

Baha Balantekin

2:25 – 2:50 PM

A new Big Bang Nucleosynthesis measurement of the D+D reactions at CRYRING@FAIR**Speaker**

Jordan Marsh

2:50 – 3:10 PM

Big Bang Nucleosynthesis, Cosmic Entropy, Gravity, and the Cosmological Lithium Problem**Speaker**

Grant Mathews

3:10 – 3:30 PM

Ending the second cosmological Li problem**Speaker**

Ella Wang

3:30 – 3:50 PM

The ${}^7\text{Be}(n,p){}^7\text{Li}^*$ reaction relevant to the cosmological lithium problem studied with the ${}^9\text{Be}({}^3\text{He},\alpha){}^8\text{Be}(pp){}^7\text{Li}$ and ${}^7\text{Li}({}^3\text{He},d){}^8\text{Be}(pp){}^7\text{Li}$ reactions**Speaker**

Naohito IWASA

3:50 PM

4:20 PM

Scientific Session: Sessin 4**Session** | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

4:20 – 4:45 PM

Direct detection of interstellar radionuclides - messengers of heavy element nucleosynthesis and recent nearby cosmic explosions**Speaker**

Anton Wallner

4:45 – 5:10 PM

Direct Reaction and Resonance Studies for Nuclear Astrophysics at CENS**Speaker**

Sunghoon (Tony) Ahn

5:10 – 5:30 PM

First mass measurements of short-lived nuclei at HIAF-SRing**Speaker**

Chaoyi FU

5:30 – 5:50 PM

Nuclear spectroscopy at KISS/KISS-1.5 to explore the origin of heavy elements synthesized by r-process

Speaker

Yoshikazu HIRAYAMA

5:50 – 6:10 PM

Direct mass measurements for nuclear astrophysics and prospects toward the $N = 126$ r-process region

Speaker

Shun Iimura

6:10 PM

Wed, October 21

9:30 AM

Scientific Session: Session 5

Session | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

9:30 – 9:55 AM

Modeling and nucleosynthesis of novae and X-ray bursts

Speaker

Jordi Jose

9:55 – 10:20 AM

The 2025 evaluation of experimental thermonuclear reaction rates (ETR25)

Speaker

Christian Iliadis

10:20 – 10:40 AM

New s-process nucleosynthesis predictions for low-mass AGB stars and implications for meteoric data

Speaker

Balázs Szányi

10:40 – 11:00 AM

Indirect measurements with stable beams to improve reaction rate calculations for explosive nucleosynthesis

Speaker

Johann Wiggert Brummer

11:00 – 11:15 AM

The Impact of the New ^{59}Fe Decay Rates on ^{60}Fe and ^{26}Al Nucleosynthesis in Massive Stars

Speaker

Bingyang Tan

11:15 AM

11:40 AM

Scientific Session: Session 6

Session | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

11:40 AM – 12:05 PM

Extra-galactic archaeology - elemental abundances of high-z galaxies

Speaker

Chiaki Kobayashi

12:05 – 12:25 PM

Potassium abundances in extremely metal-poor stars as a probe of the final phases of massive star evolution

Speaker

Dr Miho Ishigaki

12:25 – 12:40 PM

Unveiling the Origins of Newly Discovered Super Li-Rich Stars

12:40 PM

Speaker

Bakuh Danang Setyo Budi

1:55 PM

Scientific Session: Session 7**Session** | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

1:55 – 2:20 PM

Underground nuclear astrophysics JUNA experiments**Speaker**

Weiping Liu

2:20 – 2:45 PM

Experimental Challenges in Underground Nuclear Astrophysics Laboratories: Status and Future Perspectives Toward the LUNANOVA Project**Speaker**

Alba Formicola

2:45 – 3:05 PM

The $^{19}\text{F}(p,g)^{20}\text{Ne}$ measurement at LUNA**Speaker**

Denise Piatti

3:05 – 3:25 PM

Indirect Measurement of the $^{16}\text{O}(^{12}\text{C},\alpha)^{24}\text{Mg}$ Reaction at Stellar Energies**Speaker**

Aurora Tumino

3:25 – 3:45 PM

Neutron induced reactions for BBN: the $^3\text{He} + n$ case**Speaker**

rosario pizzone

3:45 PM

4:15 PM

Scientific Session: Session 8**Session** | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

4:15 – 4:40 PM

Chemical and isotopic analysis of samples returned by the Hayabusa2 mission from the asteroid Ryugu**Speaker**

Tetsuya Yokoyama

4:40 – 5:05 PM

Meteoritic isotopic anomalies as precision tests of stellar nucleosynthesis**Speaker**

Nan Liu

5:05 – 5:25 PM

The evidence of the supernova neutrino-process recorded in the oldest solids in the solar system**Speaker**

Takehito Hayakawa

5:25 – 5:40 PM

Tracing Circumstellar Dust Formation and Evolution with Presolar Silicates in DOM 08006

5:40 PM

Speaker

Hiroyuki Hashizume

Thu, October 22

9:30 AM

Scientific Session: Session 9

Session | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

9:30 – 9:55 AM

Nuclear theory for neutron-star matter and pairing

Speaker

Prof. Alex Gezerlis

9:55 – 10:15 AM

Mass Measurement of New Neutron-Rich Americium Isotopes

Speaker

Dr Sota KIMURA

10:15 – 10:35 AM

Systematics of fission-fragment mass distributions and pre- and prompt-neutron emission in neutron-rich U isotopes

Speaker

Dr Nobuya Nishimura

10:35 – 10:50 AM

High-precision mass measurements for improving the r-process simulations

Speaker

Miikka Winter

10:50 AM

11:15 AM

Scientific Session: Session 10

Session | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

11:15 – 11:40 AM

Gamma-ray line observations for nuclear astrophysics

Speaker

Roland Diehl

11:40 AM – 12:00 PM

First measurement of the $^{102}\text{Pd}(p,\gamma)^{103}\text{Ag}$ reaction cross section in the Gamow window below $E_p = 2.5\text{ MeV}$ for the p -process nucleosynthesis

Speaker

Dr Fulong Liu

12:00 PM

Fri, October 23

9:30 AM

Scientific Session: Session 11

Session | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

9:30 – 9:55 AM

Helium enrichment and r-process heating in kilonovae

Speaker

Oliver Just

9:55 – 10:20 AM

r-process with a first-principles neutron star merger model

Speaker

Shinya Wanajo

10:20 – 10:40 AM

Nuclear equation of state at finite temperature compatible with low-energy experiments on Earth

Speaker

Hitoshi Nakada

10:40 – 11:00 AM

Structure of nuclear matter below saturation density

Speaker

Dr Nikolai Shchechilin

11:00 AM

11:25 AM

Scientific Session: Session 12

Session | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

11:25 – 11:45 AM

r-process-enhanced metal-poor stars studied with LAMOST and Subaru: elemental abundances and kinematics

Speaker

Wako Aoki

11:45 AM – 12:05 PM

Phosphorus enrichment on the young side of the Milky Way: age-resolved constraints on Galactic chemical evolution

Speaker

Mingjie Jian

12:05 – 12:25 PM

Multidimensional Dynamics and Multimessenger Signatures of Magnetorotational Supernovae

Speaker

Shota Shibagaki

12:25 PM

1:40 PM

Scientific Session: Session 13**Session** | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

1:40 – 2:05 PM

Beta decay and electron capture calculations related to astrophysical applications**Speaker**

Ante Ravlic

2:05 – 2:30 PM

Experimental studies of β -decay properties of very neutron-rich nuclei relevant to the r process**Speaker**

Vi Phong

2:30 – 2:50 PM

Collisional-Radiative Lanthanide & Actinide Data for non-LTE Kilonova Spectral Modelling**Speaker**

Andreas Flörs

2:50 – 3:10 PM

The r-Process: A Complete Survey and the Impact of Ab Initio Masses**Speaker**

Jan Kuske

3:10 PM

3:35 PM

Scientific Session: Session 14**Session** | **Location:** RIKEN, Headquarters Building 2F, 2-1, Hirosawa, Wako, Saitama 351-0198, Japan

3:35 – 4:00 PM

Recent Observations of Pulsar Wind Nebulae and Supernova Remnants**Speaker**

Prof. Samar Safi-Harb

4:00 – 4:20 PM

The experimental study on the compound neutron-capture rate of ^{130}Sn via (d,p) surrogate reaction**Speaker**

Dr Sunghan Bae

4:20 – 4:40 PM

Poster Award and Closing**Speaker**

Shunji NISHIMURA

4:40 PM